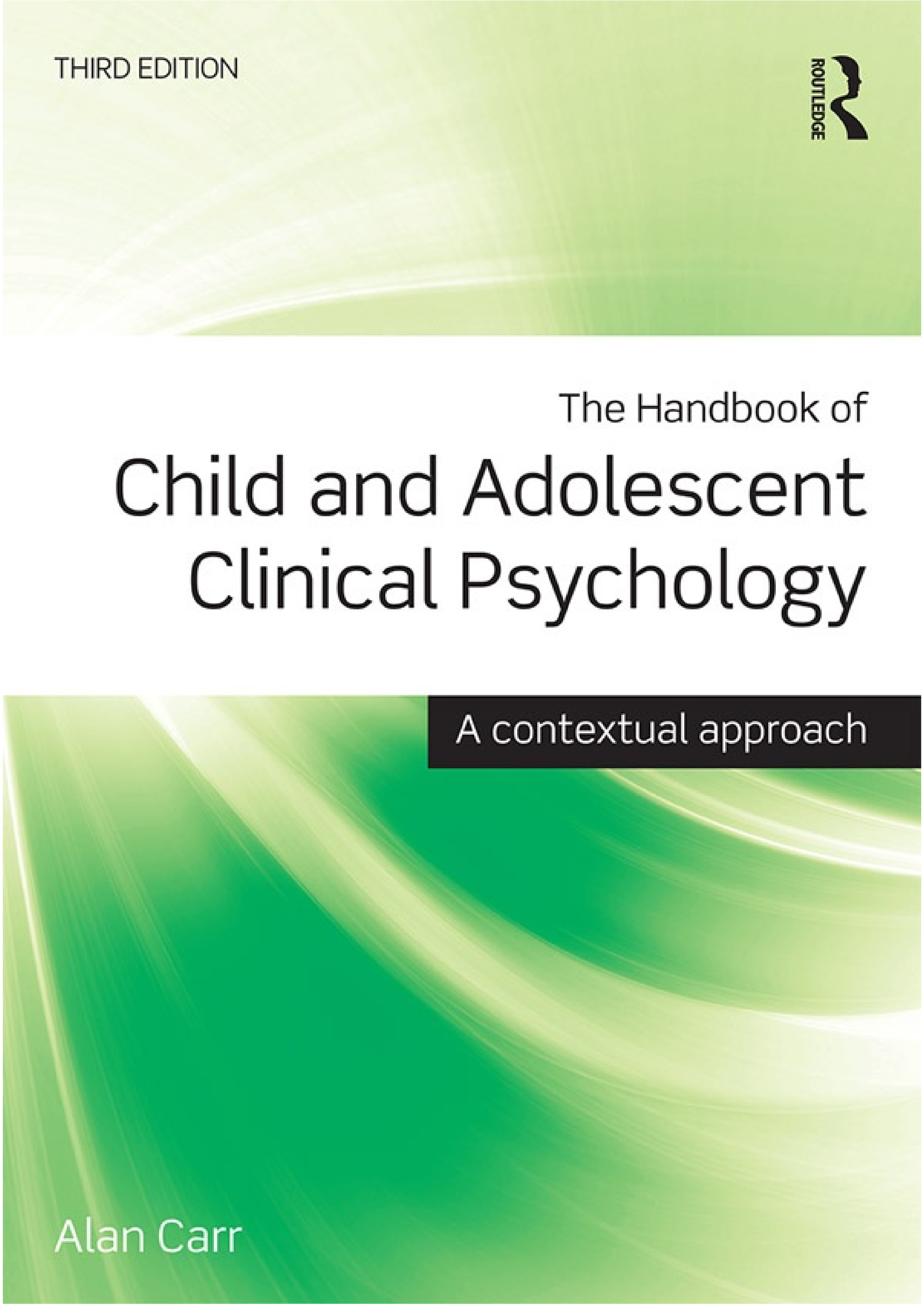

THIRD EDITION

ROUTLEDGE

The Handbook of Child and Adolescent Clinical Psychology

A contextual approach

Alan Carr

The Handbook of Child and Adolescent Clinical Psychology

The third edition of the hugely successful *Handbook of Child and Adolescent Clinical Psychology* incorporates important advances in the field to provide a reliable and accessible resource for clinical psychologists. Beginning with a set of general conceptual frameworks for practice, the book gives specific guidance on the management of problems commonly encountered in clinical work with children and adolescents drawing on the best practice in the fields of clinical psychology and family therapy. In six sections thorough and comprehensive coverage of the following areas is provided:

- Frameworks for practice
- Problems of infancy and early childhood
- Problems of middle childhood
- Problems of adolescence
- Child abuse
- Adjustment to major life transitions

Thoroughly updated throughout, each chapter dealing with specific clinical problems includes case examples and detailed discussion of diagnosis, classification, epidemiology and clinical features. New material includes the latest advances in child and adolescent clinical psychology; developmental psychology and developmental psychopathology; and assessment and treatment programmes. This book is invaluable as both a reference work for experienced practitioners and as an up-to-date, evidence-based practice manual for clinical psychologists in training.

The Handbook of Child and Adolescent Clinical Psychology is one of a set of three books published by Routledge, which includes *The Handbook of Adult Clinical Psychology: An evidence-based practice approach, Second edition* (edited by Alan Carr and Muireann McNulty) and *The Handbook of Intellectual Disability and Clinical Psychology Practice, Second edition* (edited by Alan Carr, Christine Linehan, Gary O’Reilly, Patricia Noonan Walsh and John McEvoy).

Alan Carr is Professor of Clinical Psychology and the Director of the Doctoral Programme in Clinical Psychology at University College Dublin. He is also a consultant psychologist and family therapist at the Clanwilliam Institute, Dublin. He has published other books with Routledge including *The Handbook of Clinical Intervention with Young People who Sexually Abuse* (co-edited with Gary O'Reilly, Bill Marshall and Richard Beckett), *Clinical Psychology: An Introduction*, *What Works with Children, Adolescents and Adults?* and *Positive Psychology, Second edition*. He has worked in the fields of clinical psychology and family therapy in the UK, Ireland and Canada.

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Contents

Section 1
Frameworks for practice

Section 2
Problems of infancy and early childhood

Section 3
Problems of middle childhood

Figures

Tables

Boxes

Preface to the third edition

> When a dog barks late at night and then retires again to bed he punctuates and gives majesty to the serial enigma of the dark, laying it more evenly and heavily upon the fabric of the mind. King Sweeney in the trees hears the sad baying as he sits listening on a branch, a huddle between earth and heaven; and he hears also the answering mastiff that is counting the watches in the next parish. Bark answers bark till the call spreads like fire through all Erin. Soon the moon comes forth from behind her curtains riding full tilt across the sky, lightsome and unperturbed in her immemorial calm. The eyes of the mad king upon the branch are upturned, whiter eyeballs in a white face, upturned in fear and supplication. Was he mad? The more one studies the problem the more fascinated one becomes.
>
> Flann O'Brien (1939). *At Swim Two Birds* (pp. 216–217). London: Penguin.

The current edition of this volume, like its predecessors, has been written as a core textbook in the *practice* of child and adolescent clinical psychology for postgraduates undertaking professional training in clinical psychology.

The third edition of this handbook differs from the previous editions in a number of ways. Throughout the book references, website addresses and text have been updated to reflect important developments since the publication previous editions. Recent research findings on the epidemiology, aetiology, course, outcome, assessment and treatment of all psychological problems considered in the book have been incorporated into the text. Priority has been given to replicated findings and those for which there is recent meta-analytic support. Account has been taken of changes in the diagnosis and classification of child and adolescent psychological problems reflected in the fifth edition of the American Psychiatric Association's (2013) diagnostic and statistical manual (DSM-5), the revised Zero to Three (2003) diagnostic classification (DC: 0–3R), and the 11th revision of the American Association on Intellectual and Developmental Disabilities' (2010) manual for the definition and classification of intellectual disability (AAIDD-11).

Despite these extensive revisions and additions, the original structure of the handbook has been retained. A set of conceptual frameworks for practice is given at the outset, and then problems commonly encountered in clinical work with children and adolescents are considered.

I have used the term *contextual* to describe the broad approach taken in this handbook, although I was tempted to describe it as multi-systemic, developmental and pan-theoretically integrative, since it is all of these things. The approach is multi-systemic, insofar as it rests on the assumption that children's psychological problems are most usefully conceptualised as being nested within multiple systems including the child, the family, the school and the wider social network. It is also multi-systemic insofar as it assumes that assessment and intervention must address the systems relevant to the aetiology and maintenance of the particular problem with which the child presents. Ecological models of child development and family-based intervention strategies have been a particularly strong influence on the development of this approach. The approach is developmental because it takes account of the literature on individual lifespan development, developmental psychopathology and the family lifecycle. The approach is pan-theoretical insofar as it rests on an acceptance that useful solutions to young people's difficulties may be developed by considering them in light of a number of different theoretical perspectives rather than invariably attempting to conceptualize them from within a single framework or theoretical model. Neurobiological, cognitive-behavioural, psychodynamic, stress and coping, family systems, and social-ecological theories are the main conceptual frameworks considered within this approach. The approach is integrative insofar as it attempts, through a commitment to rigorous case formulation, to help clinicians link together useful ideas from different theories in a coherent and logical way when dealing with particular problems. A piecemeal, eclectic approach is thereby avoided.

The overarching framework that has guided the development of this approach is rigorous social constructionism. There is an assumption that for children, families and clinical psychologists, problem definitions and solutions are socially negotiated within the constraints of the physical world and physiological limitations of the body. Thus we can never ask if a particular diagnostic category (like DSM depression) or construct (like insecure attachment) is really true. All we can say is that for the time being, making distinctions entailed by these categories fit with observations made by communities of scientists and clinicians and are useful in understanding and managing particular problems. The challenge is to develop integrative models or methods for conceptualizing clinical problems that closely fit with our scientist-practitioner community's rigorous observations and requirements for workable and ethical solutions.

The book is divided into six sections. In the first section a number of frameworks for practice are given. These frameworks offer a way of thinking about both clinical problems and the process of psychological consultation. In Sections II, III and IV, problems that commonly occur in early childhood, middle childhood and adolescence are discussed. Coverage of problems in these sections is not even-handed. Problems which are commonly referred for consultation are given greatest attention, with the exception of intellectual disabilities and neuropsychological problems. This is because in most clinical psychology training programmes (and indeed in our own programme at University College Dublin), these areas are covered by specialist courses and are only briefly touched upon in the main clinical child psychology course. In Section V the focus is on child abuse, and in Section VI clinical problems associated with major life transitions, such as foster care placement, divorce and bereavement are considered. These topics are given special attention because managing cases where these transitions have occurred is a central part of the remit of clinical child psychologists.

Within each of the chapters on specific clinical problems, case examples are given at the outset. These case examples have been sufficiently disguised by altering details to protect the anonymity of clients. This is followed in most instances by a consideration of diagnosis, classification, epidemiology and clinical features. Reference is made to the tenth edition of World Health Organisation's International Classification of Diseases (ICD-10; WHO, 1992, 1996) and fifth edition of the American Psychiatric Association's Diagnostic and Statistical Manual of Mental Disorders (DSM-5; American Psychiatric Association, 2013). These systems are widely used, despite their many faults, and in my view, developing a familiarity with them and their shortcomings is an important part of training in clinical psychology. Theoretical explanations are considered after diagnosis and classification. Reference is made to available evidence and its bearing on various theoretical positions. However, extensive critical reviews of evidence are not given, since the central focus of this textbook is on practice rather than research. A summary of the empirical evidence on which much of the practice in this handbook is based is given in *What Works With Children, Adolescents and Adults?* (Carr, 2009). Frameworks for assessment and case management are given in light of available theories and research conclusions.

In offering frameworks for assessment, an attempt has been made wherever possible to delineate important predisposing, precipitating, maintaining and protective factors deserving evaluation for the particular problem in question. Also reference is made to available psychometric instruments. In offering options for intervention, those for which there is evidence of efficacy are described wherever possible. Where research evidence is lacking, best practice based on available clinical literature and experience is offered. For most problems multi-systemic intervention approaches are described. These incorporate psychoeducational, child-focused, family-focused and broader network-focused elements.

Summaries are given at the end of each chapter along with exercises to help postgraduates develop their formulation and case planning skills on the one hand, and their interviewing and consultation skills on the other. I have attempted wherever it seemed useful to offer diagrammatic summaries of material presented within the text and also to list practice manuals, resources for clients and websites at the end of each chapter.

This text, in my view, has five main shortcomings. First, I have over-emphasized problems and deficits and under-emphasized the extraordinary resilience and resourcefulness that characterizes most children and families who come to the attention of clinical psychologists. This is probably because the entire field is dominated by a deficit discourse. My book – *Positive Psychology* (Carr, 2011) – offers a more resource-oriented perspective and may be read as a useful balance to the deficit-dominated perspective of this handbook. Second, I have over-emphasized technical aspects of the consultation process and probably paid insufficient attention to relationship factors in clinical practice. My hope is that through live supervision during placements and internships and through experiential work or personal psychotherapy, students will develop interpersonal sensitivity and enhanced relationship skills. Third, the book is under-referenced. I took a decision to make a few references in the opening sentences of each section to major texts or significant papers to substantiate assertions made throughout the section. I hoped that this would enhance the readability of the material and prevent the lack of fluency that occurs when all assertions are multiply referenced. Fourth, many issues have not been covered or have been dealt with only briefly. This is because I wished to keep the book to manageable proportions. Finally, this book is far too long. I began with the intention of writing a very short practical clinical text, but conversations with students and clinical placement supervisors repeatedly alerted me to other areas requiring coverage. Hence this oversized pocket book.

The *Handbook of Child and Adolescent Clinical Psychology* is one of a set of three texts which cover the lion’s share of the curriculum for clinical psychologists in training in the UK and Ireland. The other two volumes, both of which are now in their second editions, are the *Handbook of Adult Clinical Psychology: An Evidence Based Practice Approach* and the *Handbook of Intellectual Disability and Clinical Psychology Practice.*

Alan Carr
University College Dublin
January 2015

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We are grateful to the American Psychiatric Association for permission to reproduce diagnostic criteria previously published in 2013 in the fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* and to the World Health Organization for permission to reproduce diagnostic criteria previously published in 1992 in the *ICD-10 Classification of Mental and Behavioural Disorders. Clinical Descriptions and Diagnostic Guidelines.*

Alan Carr
January 2015

Section 1

Frameworks for practice

Chapter 1

Normal development

This book is primarily concerned with psychological problems that occur during the first 18 years of life. The first 18 years is a period during which the most profound changes occur in physical, cognitive and social development. A summary of important normative findings from the fields of developmental psychology and psychopathology will be presented in this chapter. However, the development of the individual child is primarily a social process and the family is the central social context within which this development occurs. We will therefore begin with a consideration of the family lifecycle.

The family lifecycle

Families are unique social systems insofar as membership is based on combinations of biological, legal, affectional, geographic and historical ties. In contrast to other social systems, entry into family systems is through birth, adoption, fostering or marriage and members can leave only by death. Severing all family connections is never possible. Furthermore, while family members fulfil certain roles which entail specific definable tasks such as the provision of food and shelter, it is the relationships within families which are primary and irreplaceable.

With single-parenthood, divorce, separation and re-marriage as common events, a narrow and traditional definition of the family is no longer useful for the practicing clinical psychologist (Walsh, 2012). It is more expedient to think of the child's family as a network of people in the child's immediate psychosocial field. This may include members of the child's household and others who, while not members of the household, play a significant role in the child's life. For example, a separated parent and spouse living elsewhere with whom the child has regular contact, foster parents who provide respite care periodically, a grandmother who provides informal day care and so forth. In clinical practice the primary concern is the extent to which this network meets the child's developmental needs.

Having noted the limitations of a traditional model of the family structure, paradoxically, the most useful available models of the family lifecycle are based upon the norm of the traditional nuclear family, with other family forms being conceptualized as deviations from this norm (McGoldrick et al., 2011). One such model is presented in Table 1.1. This model delineates the main emotional transition processes and tasks to be completed by the family at each stage of development.

Table 1.1 Stages of the family lifecycle

Stage	*Emotional transition processes*	*Tasks essential for developmental progression*
Leaving home	Developing emotional and financial autonomy	• Differentiating from family of origin and developing adult-to-adult relationship with parents • Developing intimate peer relationships • Beginning a career and moving towards financial independence • Establishing the self in community and society
Forming a couple	Committing to a long-term relationship	• Selecting a partner and deciding to form a long-term relationship • Developing a way to live together based on reality rather than mutual projection • Realigning couple's relationships with families of origin and peers to include partners
Families with young children	Accepting new children into the family system	• Adjusting couple system to make space for children • Arranging childrearing, financial and housekeeping responsibilities within the couple • Realigning relationships with families of origin to include parenting and grandparenting roles • Realigning family relationships with community and society to accommodate new family structure
Families with adolescents	Increasing flexibility of family boundaries to accommodate adolescents' growing independence and	• Adjusting parent–child relationships to allow adolescents more autonomy • Adjusting family relationships as couple take on responsibility of caring for aging parents • Realigning family relationships

	grandparents' increasing constraints	with community and society to accommodate adolescents' increasing autonomy and grandparents' increasing constraints
Launching children and moving into midlife	Accepting many exits from and entries into the family system	• Adjusting to living as a couple again • Addressing couple's midlife issues and possibilities of new interests and projects • Parents and grown children negotiating adult-to-adult relationships • Adjusting to include in-laws and grandchildren within the family circle • Dealing with disabilities and death of couple's aging parents • Realigning family relationships with community and society to accommodate new family structure and relationships
Families with parents in late middle age	Accepting new generational roles	• Maintaining couple's functioning and interests, and exploring new family and social roles while coping with physiological decline • Adjusting to children taking a more central role in family maintenance • Making room for the wisdom and experience of the aging couple • Supporting the older generation to live as independently as possible within the constraints of aging • Realigning family relationships with community and society to accommodate new family structure and relationships
Families with parents nearing the	Accepting the constraints of aging and the reality of death	• Dealing with loss of partner, siblings and peers • Preparing for death through life review and integration • Adjusting to reversal of roles where children care for parents

end of life		• Realigning family relationships with community and society to accommodate changing family relationships

Note: Adapted from McGoldrick et al. (2011).

In the first stage, which is marked by young adult children leaving home, the main process is the emergence of young adults' emotional and financial autonomy. The principal tasks are differentiating from the family of origin and developing adult-to-adult relationships with parents, developing intimate peer relationships, beginning a career and moving towards financial independence, and establishing the self within the community and society.

The second stage is that of couple formation, where the main process is commitment to a long-term relationship. The principal tasks include selecting a partner and deciding to form a long-term relationship, developing a way to live together based on an appreciation of partners' real strengths and weaknesses rather than mutual projection, and realigning couple's relationships with families of origin and peers so as to accommodate partners.

The third stage occurs when couples have children, and the main process is accepting new children into the family system. The principal tasks are making space within the couple's relationship for children; arranging childrearing, financial and housekeeping responsibilities within the couple; realigning relationships with families of origin to include parenting and grandparenting roles; and realigning family relationships with the community and society to accommodate the new family structure. When couples adjust their roles to make space for young children, this involves the development of parenting roles which entail routines for meeting children's needs for

- safety
- care
- control
- intellectual stimulation.

Developing these routines is a complex process, and often difficulties in doing so lead to a referral for psychological consultation. Routines for meeting children's needs for safety include protecting children from accidents by, for example, not leaving young children unsupervised and also developing skills for managing frustration and anger that the demands of parenting young children often elicit. Failure to develop such routines may lead to accidental injuries or child abuse. Routines for providing children with food and shelter, attachment, empathy, understanding and emotional support need to be developed to meet children's needs for care in these various areas. Failure to develop such routines may lead to a variety of emotional difficulties. Children's need for control are met through routines for setting clear rules and limits, for providing supervision to ensure that children conform to these expectations, and for offering appropriate rewards and sanctions for rule following and rule violations. Conduct problems may occur if such routines are not developed. Parent–child play and communication routines for meeting children's needs for age-appropriate intellectual stimulation also need to be developed if children are to avoid developmental delays in emotional, language and intellectual development.

The fourth stage of the family lifecycle model occurs when children make the transition to adolescence. At this stage the main developmental process is increasing flexibility of family boundaries to accommodate adolescents' growing independence and grandparents' increasing constraints. The principal tasks at this stage are adjusting parent–child relationships to allow adolescents more autonomy, adjusting family relationships as the couple take on responsibility of caring for aging parents, and realigning family relationships with the community and society to accommodate adolescents' increasing autonomy and grandparents' increasing constraints. Good parent–child communication and joint problem-solving skills facilitate completion of some of the tasks in this stage of the family lifecycle. Skills deficits in these areas underpin many adolescent referrals for psychological consultation. However, parents in families at this stage of development must contend not only with changes in their relationships with their maturing children, but also with the increased dependency of the grandparents upon them. The demands of grandparental dependency may compromise parents' abilities to meet their adolescents' needs for increasing autonomy.

The fifth stage of the family lifecycle is concerned with the transition of young adult children out of the parental home and the parents' progression into midlife. The main process during this stage is accommodating exits from and new entries into the family system. During this stage a key task is the development of less hierarchical relationships between parents and children. Parents are also faced with the tasks of adjusting to living as a couple again, to dealing with disabilities and death in their families of origin, of adjusting to the expansion of the family if their children procreate, and realigning family relationships with the community and society to accommodate changes in the family structure.

The acceptance of new generational roles arising from aging parents' physiological decline is the main developmental process in the sixth stage of the family lifecycle. This stage is marked by aging parents moving into late middle life. The principal task for aging parents is to maintain functioning and interests and accept help and support from their adult children. The principal task for adult children is to take a more central role in family maintenance which includes arranging appropriate supports for their aging parents so that they can live as independently as possible within the constraints of aging. At this lifecycle stage families must also make room for the wisdom and experience of aging parents and realign family relationships with community and society to accommodate the new family structure.

The acceptance of the constraints of aging and the inevitability of death is the main developmental process in the seventh stage of the family lifecycle, which is marked by parents nearing the end of life. The principal tasks include preparing for death through life review and integration, adjusting to reversal of roles where adult children care for parents, dealing with loss and realigning family relationships with the community and society to accommodate changing family relationships. The family must cope with aging parents' physiological decline and approaching death, while at the same time developing routines for benefiting from their wisdom and experience.

This lifecycle model draws attention to the ways in which the family meets the developing child's needs and also the way in which the family places demands upon children and other family members at different stages of the lifecycle. For example, the parents of a teenager may meet her needs for increasing autonomy by allowing greater freedom and unsupervised travel, and she may meet her grandparents' needs for continued connectedness by visiting regularly. Family lifecycle models also focus attention on the transitions that the child and other family members must make as one stage is left behind and another stage is entered. For example, the transition from being a family with young children to being a family with teenage children requires a renegotiation of family rules and roles. The hierarchical relationship between the parents and children must be renegotiated, and in some families concurrently women may decrease their focus on homemaking while increasing their focus on their career. This may coincide with men taking a more active role within the household. Families require some degree of flexibility to adapt the way relationships are organized as each of these transitions is negotiated. They also require the capacity to maintain stable roles and routines during each of the stages. A third important requirement is the capacity to permit children's movement from dependency towards autonomy as development progresses. This is as true for the transition into adolescence as it is for the launching stage where young adult children are leaving home. A further feature of family lifecycle models is that they point to certain junctures where there may be a build-up of family stress with many individual transitions occurring simultaneously. For example, in the launching stage it is not uncommon for older children to be leaving home and having their first children while their grandparents may be succumbing to late life illnesses or death. Often psychological difficulties occur during such periods of transition. Data on changes in family members' perception of strains and well-being, drawn from Olson's (1993) study of US families, are set out in Figure 1.1. From this figure it may be seen that well-being is greatest during the early and later stages of the family lifecycle, whereas the childrearing years (those which are of central concern in this text) are associated with the highest level of stress.

It is within the context of the family lifecycle that physical, cognitive and social development occurs, and it is to these that we now turn. The distinctions between physical, cognitive and social development are to some degree arbitrary since, for example, the development of moral reasoning (one aspect of social development) depends to some extent on the development of intelligence (an aspect of cognitive development). However, the distinctions provide a useful framework for summarizing those aspects of available research which are of particular relevance to the practice of clinical psychology.

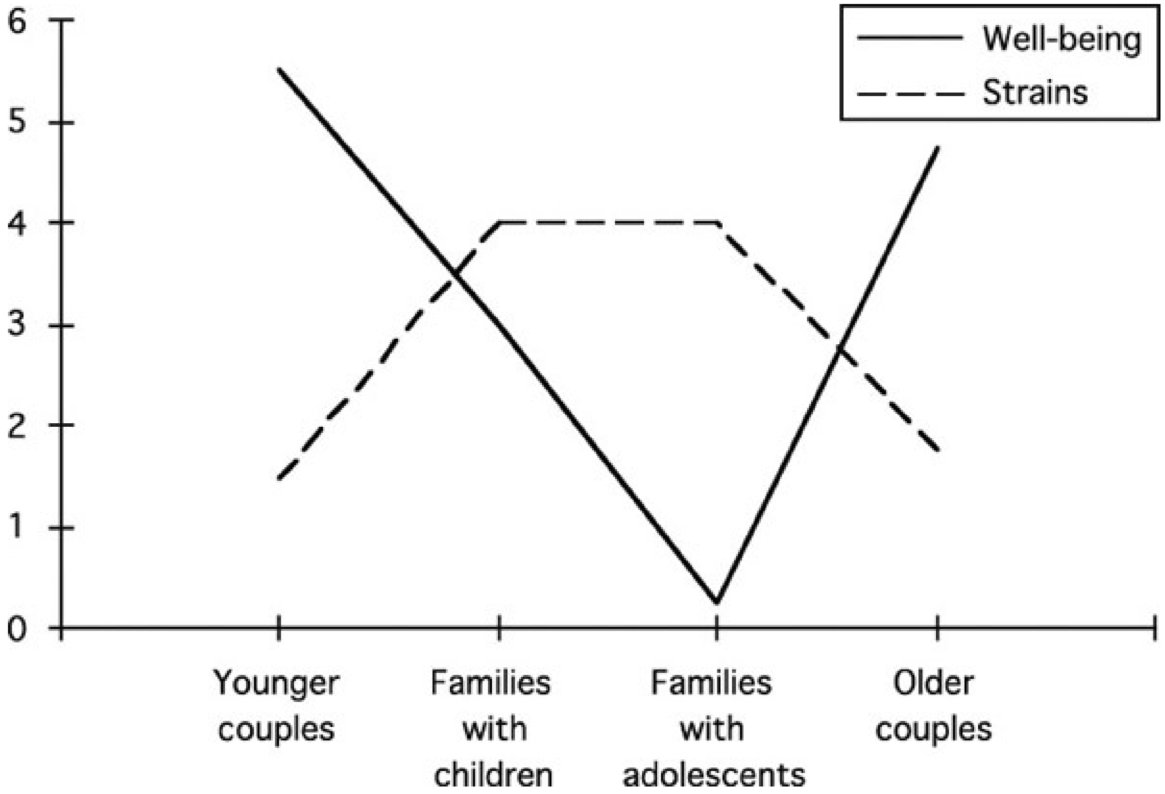


Figure 1.1 Well-being and strains across the family lifecycle

Note: Adapted from Olson (1993).

Physical development

Reviews of research on physical development paint the following picture of the infant's growth (Illingworth, 1987; Rutter & Rutter, 1993; Shaffer & Kipp, 2014). At birth infants can distinguish good and bad smells and sweet, sour and salt flavours. Even before birth, babies can respond to tactile stimulation and recognize their mother's voice. The skill of localizing a sound is also present at birth. In the first weeks of life infants can only focus on objects about a foot away and show a particular interest in dark–light contrasts. By 3 months they have relatively well-developed peripheral vision and depth perception and a major interest in faces. Visual acuity is usually fully developed by 12 months. Sensory stimulation is important for the development of the nervous system and inadequate stimulation may prevent normal neurological and sensory development. For example, children born with a strabismus (squint) which goes uncorrected may fail to develop binocular vision.

When considering motor development a distinction is usually made between locomotion and postural development on the one hand, and prehension or manipulative skills on the other. The former concerns the development of control over the trunk, arms and legs for moving around. The latter refers to the ability to use the hands to manipulate objects. Some of the milestones of motor development are set out in Table 1.2. Also included here for convenience are some sensory skills which have already been discussed. Early observational studies led Arnold Gesell to propose a maturational theory of motor skills development (Gesell & Ames, 1940). He argued that motor skills development was genetically pre-programmed to follow proximodistal (from trunk to extremities) and cephalocaudal (from head to tail) progressions. So infants first learn to control their arms before their fingers and their heads before their legs. Later research showed that motor development does not invariably follow these patterns. Esther Thelen drew on dynamic system theory to explain these exceptions (Thelen & Spencer, 1998). She proposed that motor development is multi-factorially determined. Key determinants include nervous system development, the biomechanics of the body and environmental constraints and supports.

Table 1.2 Development of motor and sensory skills

Age	*Motor and sensory skills*
0 months	• Turns head to one side when lying on stomach • Legs make crawling movements when placed on stomach • Holds a ring in a reflex grasp • Can focus on objects 9 inches away • Can distinguish mother's voice • Can distinguish sweet, sour and salt tastes
3 months	• Sits with support • Pushes head and shoulders up when lying on stomach • Grasps a rattle and reaches with two hands • Breastfed children can distinguish their mother's odour • Shows interest in faces • Depth perception emerges
6 months	• Sits briefly unaided • Rolls from back to stomach • Transfers cube between hands
9 months	• Walks holding furniture • Crawls • Sits alone • Picks up button with thumb and forefinger
12 months	• Walks unaided • Into everything • Holds crayon and makes mark
18 months	• Climbs stairs • Throws a ball into a box

	Builds a tower with three cubes
24 months	Runs Walks backwards Puts square peg in square hole Builds a tower with six cubes
3 years	Can stand on one foot for 5 seconds Pedals a tricycle Draws a circle
4 years	Hops on one foot Buttons clothes Draws a square
5 years	Hops on both feet Ties shoelaces Draws triangle
6 years	Copies diamond
7 years	Can learn new motor skills like throwing, riding a bicycle

Note: Adapted from Illingworth (1987).

After infancy motor development entails increased co-ordination of locomotion and manipulative skills. The development of effective motor skills in childhood, including those required for sports, gives the child a sense of mastery and engenders self-efficacy and self-esteem. Failure to develop motor skills places children at a disadvantage and may lead to adjustment difficulties.

Different parts of the body develop at different rates following a cephalocaudal progression. The head and brain develop early but the limbs develop later. From birth until the onset of adolescence, the rate of growth slows. With adolescence a growth spurt occurs which concludes at the end of adolescence. Until adolescence the rates of growth for boys and girls are comparable. With the onset of adolescence, girls enter the growth spurt between 1 and 2 years earlier than boys. Height, muscle mass and shoulder width are the main areas of development during the adolescent growth spurt for boys. Girls add more overall fat and hip width than boys.

In adolescence youngsters develop primary sexual characteristics (menstruation in women and the capacity to ejaculate in men) and secondary sexual characteristics (auxiliary hair, breasts and voice changes). The average age for the emergence of primary sexual characteristics in the US and the UK for girls is 10–11 years and for boys is 11.5–12.5 years (Coleman, 1995). In a review of the literature on the impact of puberty, Alsaker (1996) drew the following conclusions. Hormonal changes in adolescence have effects on some boys and girls with raised testosterone levels contributing to male aggression and dominance. In girls higher oestrogen levels are associated with positive moods and increased activity, while lower levels are associated with poorer moods. Physical changes in adolescence, notably height and weight, affect body-image satisfaction. Short boys and heavy girls tend to be dissatisfied with their body image, whereas satisfaction with body image is expressed by tall boys and slim girls. The timing of the onset of puberty also effects satisfaction with body image, although this association is probably mediated by associated changes in height and weight. Early maturing boys are more satisfied with their bodies and feel more attractive, whereas early maturing girls tend to be dissatisfied with their bodies because maturation is associated with weight gain. (Early maturing adolescents constitute 10–20% of the population.) Early maturing girls develop more conduct problems than late maturing girls because of involvement in networks of older deviant peers. In the long term, these conduct problems abate. However, for girls, early maturity may leave a legacy in the form of being less educationally advantaged than their later maturing counterparts. Early maturing girls also show greater heterosexual behaviour than their female peers, but early maturing boys do not show this increased level of sexual behaviour.

Mild concern about body shape is common among adolescents. In clinical work, *anorexia nervosa* (self-starvation) and *bulimia* (binge–purge syndrome) are two common disorders associated with a dissatisfaction with body shape. They will be discussed more fully in Chapter 17.

While genetics play a major role in physical development, environmental factors also contribute significantly to physical development. In particular nutrition, disease, trauma and (indirectly) socio-economic status all contribute to physical development. One hundred years ago the average age for the onset of puberty was about 5 years later than is currently the case. This secular trend probably reflects a change in nutrition, health care and living conditions. Vigorous exercise and dieting may retard the onset of puberty in girls and these activities characterize some young girls with anorexia nervosa. Because of rapid muscular and skeletal growth and the high energy usage of adolescents, a diet including much protein and minerals is optimal.

Brain development

The brain and nervous system subserve all psychological functioning (Pinel, 2014; Zelano & Lee, 2010). The brain and nervous system consist of more than a trillion neurons, linked by trillions of synapses. Within the nervous system signals travel by neural conduction (an electrical process within neurons) and synaptic transmission (a chemical process between neurons involving neurotransmitters). Some psychological disorders are associated with dysregulations of neurotransmitter systems. For example, dysregulation of the dopaminergic system is found in some people with a diagnosis of psychosis (discussed in Chapter 18) and of the serotonergic system is found in some people with a diagnosis of depression (discussed in

Chapter 16).

Five basic processes underpin brain development: neurogenesis (the process of forming neurons); neural migration (organizing the brain by moving neurons to specific areas based on their functions); myelination (coating the neural axons with myelin to speed conduction); synaptogenesis (forming synapses between neurons); and pruning (weeding out unnecessary connections and strengthening the important ones). The first four of these processes begin during the pre-natal period.

The volume of the human brain quadruples between birth and adulthood. This increase in size is not predominantly due to neurogenesis. With the exception of the hippocampus (involved in memory) and olfactory bulb (involved in smell), all of the neurons that constitute the adult brain have developed by the seventh month of pre-natal development. Post-natal brain growth reflects myelination, branching of dendrites and synaptogenesis. With regard to the organization of the brain, neural migration begins pre-natally and is completed by the end of the first year.

The brain growth early in life is rapid. The brain growth spurt occurs in the last pre-natal trimester and the first 2 years. During this period more than half of adult brain weight is gained. Through synaptogenesis many more synaptic connections among neurons are formed in early life than are required in adulthood. However, only synaptic connections that are stimulated survive. Through synaptic pruning, which occurs between about 2 years and early adulthood and which intensifies during adolescence, nearly 50% of the synapses present at 2 years of age are eliminated. Synaptic pruning helps sculpt the child's brain into its adult form and increases the efficiency of frequently stimulated neural networks. Synaptic connections are stimulated when people engage in activities in which the synapses are used. It's a case of use it or lose it! Thus, brain development is the product of both genetically driven maturation and learning experiences. Both genetic factors and developmental adversity, such as neglect or abuse, compromise brain development and contribute to the development of psychopathology (Addington & Rapoport, 2012; Belsky & de Haan, 2011).

While synaptic pruning enhances aspects of psychological functioning, it also may inhibit learning new skills, such as second languages (Ritchie & Bhatia, 2009). The infant's brain has synapses that allow sounds from all languages to be heard. During the early years, through synaptic pruning the brain strengthens neural networks required for hearing language sounds encountered regularly and eliminates those for other sounds. This is why most adults have trouble distinguishing sounds that are not in their own language and learn new languages with greater difficulty than children.

Children who receive a high level of intellectual stimulation, despite pruning, retain a greater number of synaptic connections, and those who suffer neglect retain fewer synaptic connections. Greater recovery from brain damage occurs in children than in adolescents or adults (Silver et al., 2011). This is because in children fewer synapses have been pruned and more are therefore available to compensate for those destroyed through brain damage. It is also because the lateralization of function which begins pre-natally is not completed until the end of childhood, and so neural networks in the undamaged hemisphere may compensate for those in the damaged hemisphere more easily in children than in adolescents or adults.

Not all parts of the brain develop at the same rate. Subcortical regions that control reflexes and basic functions such as respiration and digestion develop before the cortex, which subserves voluntary action and higher intellectual activities. Within the cortex motor and sensory areas develop before those associated with language and higher functions.

Cognitive development

A distinction between language development and the development of intelligence has traditionally been made by researchers in the field of cognitive development. This distinction will be used later in summarizing findings of relevance to the practice of clinical psychology. Most of the research on intelligence which is relevant to the practice of clinical psychology has been conducted within three traditions (Sternberg & Kaufman, 2011):

- the psychometric intelligence testing movement
- the Piagetian cognitive development tradition
- the information processing approach.

Findings from these three fields will be summarized separately.

The psychometric study of intelligence

The psychometric study of intelligence began with Alfred Binet's attempt in the first decade of the 20th century to develop a method for assessing children's abilities so that they could be placed in appropriate educational settings (Mackintosh, 2011). He devised a series of puzzles and tasks which he believed tapped the full range of verbal and non-verbal abilities and administered these to samples of children of different ages. He determined what group of tasks 50% of children at each age level could complete, and subsequently used this normative data to assign *mental ages* to children about whom he wished to make educational placement decisions.

William Stern subsequently noted that a clinically more useful index of ability would express the child's mental age as a proportion of their chronological age, since a 10-year-old with a mental age of 5 would require different educational placement than a 5-year-old with a mental age of 5. The index he developed was the intelligence quotient or IQ, which is calculated using the following formula.

Intelligence Quotient = (Mental Age/Chronological age) × 100

While this quotient was useful for children, with adults over 18 years it yielded increasingly declining IQs as people aged. David Wechsler solved this problem by replacing the ratio IQ with the deviation IQ. For each age group he defined an IQ of 100 as the mean score of the standardization sample. A score which fell one standard deviation (15 IQ points) above the mean was given an IQ value of 115 and a score which fell one standard deviation below the mean was given an IQ value of 85. Other IQ values were given in a similar fashion on the basis of the degree to which they deviated from the mean. The Stanford-Binet Intelligence test and the Wechsler intelligence scales for pre-schoolers, children and adults have become the most widely used measures of intelligence in the world and have undergone numerous revisions and re-standardizations over the past 80 years. They are still routinely used in clinical practice by psychologists to evaluate specific and general learning difficulties and to make placement decisions similar to those faced by Binet almost a century ago. The psychometric movement and the tests developed within this tradition have also spawned a great deal of research which has addressed the following questions:

- Is intelligence most usefully conceptualized as a single trait, multiple independent traits or a hierarchically organized pyramid of related traits?
- Does intelligence (and the constellation of abilities that make up intelligence) remain stable over time?
- How is intelligence distributed within the population?
- What are the relative contributions of heredity and environment to the development of intelligence?
- Can environmental changes improve intelligence?
- What are the relationships between intelligence and scholastic attainment, vocational adjustment and social competence?

Factor analytic studies show that most tests of ability are positively correlated, but these correlations are only moderate. Such studies suggest that there is a trait of general intelligence which influences performances on many problem-solving tasks. However, there is also a range of specific abilities which affect the performance of particular types of tasks. Many psychometric theorists argue that general intelligence and specific abilities are most usefully conceptualized as being hierarchically organized. Hierarchical models of abilities propose a broad general intelligence factor at the top of the hierarchy and a range of specific abilities underneath (Davidson & Kemp, 2011; Willis et al., 2011). For example, the Wechsler tests of intelligence are based on a model that places the full scale IQ as an index of overall intelligence at the top of the hierarchy. Beneath this are verbal and performance IQs which reflect specific verbal and visuospatial abilities. Neuropsychological investigations broadly indicate that verbal functions in adult males may be subserved largely by the left side of the brain whereas visuospatial abilities are subserved by the right side. With females and children, lateralization of function is less clearly defined (Reynolds & Fletcher-Janzen, 2009).

The second question of interest to the psychometric movement concerns the stability of intelligence over time. Broadly speaking, intelligence measurements taken at two separate times in a person's life will be positively correlated. However, population studies of this type show that the correlations are far from perfect and are probably influenced by a variety of environmental factors and by the tasks used to assess intelligence. For example, Bornstein and Sigman (1986) have shown that curiosity about new stimuli in infants under 6 months correlates .5 with IQ as measured on standardized intelligence tests at school entry. Curiosity was assessed by noting the speed with which infants lose interest in a stimulus and show renewed interest when presented with a novel stimulus. These findings are important because traditional psychometric measures of infant development, such as the Bayley scales, do not predict later IQ (Lipsitt, 1992). Unfortunately, well-standardized inspection time tests for assessing infant intelligence have not yet been developed for use in clinical practice.

A second example of temporal changes in the contribution of different abilities to overall intelligence comes from the work of Cattell (1963). He distinguished between *crystallized intelligence* and *fluid intelligence*. Fluid intelligence is reflected in cognitive abilities that do not depend on experience such as attention, short-term memory and reasoning, and these reach their peak in early adult life. Crystallized intelligence is reflected in vocabulary, general information and experiential evaluation. This form of intelligence is highly dependent on experience and gradually increases across the entire lifespan. Recent research on these two aspects of intelligence supports Cattell's original findings (Hertzog, 2011). Peak years for creativity for pursuits involving crystallized intelligence are usually in the middle adult years. Included here are creative writing and social sciences. Peak years for production in pursuits requiring fluid intelligence occur before the forties. Included here are the natural sciences and mathematics. This information is valuable for clinical psychologists involved in career guidance.

The third question addressed within the psychometric tradition is the way in which intelligence is distributed within the population. Most studies show that intelligence test scores approximate a normal (bell-shaped) distribution. That is, very few people obtain either extremely high or extremely low scores and the majority obtain moderate scores. Clinical psychologists may use this knowledge of the distribution of intelligence in service planning.

While there continues to be controversy about the fourth question concerning the contribution of heredity and environment to the development of intelligence, more balanced considerations of the evidence conclude that both heredity and environment make roughly equal contributions (Mandelman & Grigorenko, 2011). In view of this, it is not surprising that the level of intellectual stimulation provided by parents and environmental enrichment programmes for disadvantaged children have been shown to enhance intelligence and subsequent school performance and both social and vocational adjustment (Nickerson, 2011).

While traditional psychometric conceptions of intelligence have focused largely on verbal, visuospatial and mathematical abilities, Howard Gardner has argued that a far broader conception of intelligence is warranted and proposed that there are there are at least eight different intelligences, with work on the specification of others in progress (Davis et al., 2011). The eight intelligences are linguistic, logical-mathematical, spatial, bodily-kinaesthetic, musical, interpersonal, intrapersonal and naturalist. Only the first three of Gardner's intelligences are addressed within the psychometric tradition. Goleman (1995) has argued that interpersonal and intrapersonal intelligence are the most important for successful psychological adaptation in life. Together, these constitute what Goleman refers to as emotional intelligence; that is, the capacity to recognize and manage one's own emotions and those of others in significant interpersonal relationships (Mayer et al. 2011). The development of emotional intelligence is discussed later in this chapter.

The Piagetian tradition and stages of cognitive development

In contrast to the psychometric movement with its emphasis on individual differences in levels of intelligence and stability of intelligence over time, the Piagetian movement has concerned itself with commonalities across children in their cognitive styles as they progress through stages of cognitive growth. A useful critical appraisal of the Jean Piaget's work in the light of recent research is contained in Smith et al. (2011). Piaget conceived of the growth of intelligence as dependent upon the child actively attempting to adapt to the world, assimilating new knowledge into available schemas or accommodating to new knowledge and experiences by altering schemas. The main questions addressed by Piaget and members of this tradition have been:

- What are the stages of cognitive development?
- Are there qualitatively different cognitive structures that underpin intelligent problem solving in each of these stages?
- Is progression through the stages invariant?
- Can progression through stages be accelerated by training?

In answer to the first question Piaget posited the existence of four main stages. In the first of these – the sensorimotor period, which extends from birth until about 2 years of age – the child's approach to problem solving and knowledge acquisition is based upon manipulating objects and trial and error learning. The main achievements of this stage are the development of cause and effect sensorimotor schemas and the concept of object permanence. That is, the realization that objects have a permanent existence independent of our perception of them.

The second stage of development in Piagetian theory is the pre-operational period. During this stage the child moves from the use of sensorimotor schemas as the main problem-solving tool to the formation of internal representations of the external world. The ability to use internal representations of the world to solve problems underpins a number of important achievements readily observable in pre-schoolers. These include increasingly sophisticated language usage, engagement in make-believe or symbolic play, the ability to distinguish between appearance and reality and the ability to infer what other people are thinking. This ability to infer what others are thinking has been referred to as theory of mind, and deficits in this ability typify children with autism. A fuller discussion of this issue will be given in Chapter 9. Reasoning in the pre-operational period is largely intuitive, with the child linking one particular instance to another rather than reasoning from general to particular. For example, a pre-operational child will say 'I'm tired so it must be night-time' rather than 'It's getting dark so it must be night-time.' The pre-operational child's attempts to solve problems are influenced to a marked degree by what is perceived rather than by what is remembered. The main limitations of the pre-operational period are an inability to take the visual perspective of another person, difficulty in retelling a story coherently (egocentric speech), a belief that inanimate objects can think and feel like people (animism) and an inability to focus on more than one dimension of a problem at a time. For example, if liquid is poured from a short wide glass into tall narrow glass, the pre-operational child may say the there is now more liquid because the level is higher, without making reference to the decreased width of the second glass. Piaget referred to the capacity to take account of two dimensions simultaneously as conservation of quantity.

Conservation of quantity is one of the primary achievements of the concrete operational period which extends from 5 to 7 years up until about 12 years. The concrete operational period is the third of Piaget's developmental stages. During this period the child develops the ability to classify objects, place objects in series, engage in rule-governed games, adopt the geographic perspective of another person, and manipulate numbers using addition, subtraction, multiplication and division. These abilities involve the use of logic (rather than intuition) to solve concrete problems.

At about the age of 12 the child begins to use logic to solve abstract problems. That is, the child can develop hypotheses about what might be true and then make plans to test these hypotheses out. This is the primary characteristic of the formal operational period. This is Piaget's fourth and final developmental stage. There are many achievements which occur during this period. The adolescent can manipulate two or more logical categories such as speed and distance when planning a trip. Time-related changes can be projected so the adolescent can predict that her relationship with her parents will be different in 10 years. The logical consequences of actions can be predicted, so career options related to certain courses of study can be anticipated. The adolescent can detect logical inconsistencies such as those that occur when parents do not practice what they preach. A final achievement of the formal operational period is the capacity for relativistic thought. Teenagers can see that their own behaviour and that of their parents are influenced by situational factors.

Alongside these extraordinary achievements, there are limitations which characterize the formal operational period. Just as egocentric pre-schoolers cannot take another person's perspective because they do not realize that others occupy a different geographical location than themselves, young adolescents do not realize that others occupy different (and less logical) philosophical positions than themselves. This cognitive egocentrism compromises the adolescent's capacity to solve interpersonal problems that entail logical conflicts and contradictions. Riegel (1973) has suggested that this limitation of the formal operational period is overcome in a final stage of cognitive development which he refers to as dialectical thinking. Logical reasoning, a sensitivity to practical and ethical considerations, the ability to re-frame apparently insoluble problems in solvable terms and the capacity to tolerate ambiguity characterize this period, which occurs in early adulthood.

Riegel's (1973) work is a good example of later research which showed that Piaget's account of the stages of cognitive development was incomplete. The other main criticism of Piaget's work concerns the boundaries between the stages. Many tests of Piaget's theory have shown that under certain simplified experimental conditions or following certain enriching developmental experiences or training programmes or within certain specific domains, children at a given stage can perform tasks that require the cognitive capacities which Piaget's theory attributes to a later stage (Shaffer & Kipp, 2014; Smith et al., 2011). The limitations of children at each stage of cognitive development are important to keep in mind when interviewing them alone or in family sessions. Complex questions or elaborate interpretations or re–framings which may routinely be used with adults are often inappropriate when working with children.

The information processing approach and the acquisition of skills and strategies

Information processing approaches to the study of intelligence looks to the computer as the main metaphor for studying the growth of problem-solving abilities. This approach is concerned with four main questions:

- Can models of sequences of steps and processes which intervene between posing a problem and the child performing a solution be developed for specific domains?
- What strategies are used to solve memory problems?
- What role do scripts and schemas play in problem solving?
- What conditions underpin cognitive change?

In answer to the first question, numerous models of processes that intervene between input and output have been developed (Bjorklund, 2011; Sternberg & Kaufman, 2011). Most information processing models distinguish between (1) sensory registers where, for example, images of visual and auditory stimuli are held for less than a second; (2) short-term memory where information is retained for a few seconds; (3) temporary working memory where information from the short-term memory is processed by using control strategies including rehearsal, organization and elaboration; (4) long-term memory; and (5) retrieval.

Regardless of age, the child's information processing capacity is limited. In teenagers and adults the limits are 7 bits (±2). However, older children remember more than younger children. This is probably because they use more effective control strategies for remembering material. Three commonly used strategies are rehearsal (repetition), organization (chunking or grouping) and elaboration (using a device-like imagery to link together items to be remembered). However, these strategies are not used indiscriminately. Rather they are informed by youngsters' knowledge about the impact of these strategies on recall, recognition and reconstruction of material the child wishes to remember. This knowledge about memory is called metamemory. For example, if there are more than five items on a shopping list, some people will consciously use chunking to help them recall the list.

Automatization and strategy construction are two of the main processes by which cognitive change occurs. In the early stages of learning a new skill, much information processing capacity is taken up with attention to each component of the skill. With rehearsal, sequences of components become automatic and spare capacity becomes available for developing strategies for refining the skill or using it to develop further skills or expertise. For example, a child whose bicycle riding skills have become automatic may use the available spare capacity to learn new cycle routes.

When children have little knowledge of a topic, they rely largely on recall memory. However, reconstructive memory is an alternative to recall. Here, the child rebuilds the material they have remembered on the basis of information coded as schemas and scripts. The greater the child's expertise (or knowledge base in a particular domain) the more effective their use of reconstructive memory, since they have a rich network of associations through which to reconstruct the new material they have learned. Knowledge bases contain both schemas and scripts. Schemas are representations of the typical structure of familiar experiences. For example, the way furniture is laid out in a dining room. Scripts are representations of typical sequences of events. For example, the routine used to make a cup of tea. Schemas and scripts aid the learning of new material.

The information processing approach has demonstrated that short-term memory capacity, the amount of information encoded in a problem-solving situation, the rate of automatization, the strategies employed and the use of metacognitive skills evolve with age. However, performance is also greatly influenced by familiarity with the content of any problem-solving task and the context within which the problem occurs. For example, children engaged in street vending may perform complex mathematical calculations when selling their wares yet perform poorly in a classroom situation.

Autobiographical memory constitutes a special collection of scripts in which aspects of self and identity are represented. Autobiographical memory probably emerges in conversations with parents where personal memories are retrieved and rehearsed. Infantile amnesia (the inability to remember the first 2 years of life) from an information-processing perspective may be conceptualized as the lack of autobiographical memory for this period, which may in turn be attributed to the absence of parent–child conversations in this pre-linguistic period. This is quite a different account of infantile amnesia than that given by Freud (1905), who attributed it to repressed memories of sexual desires for parents.

The information-processing approach is a particularly valuable framework for clinical psychologists to use when coaching parents and children in the development of new communication and problem-solving skills. It is also a useful framework from which to interpret the burgeoning literature on the accuracy of children's testimony in court, and how best to interview children to obtain accurate eyewitness testimony (Home Office, 2011; Lamb et al., 2008).

Vygotsky and the social context of intellectual development

The three main traditions within which intelligence has been studied have relied predominantly on an individualistic approach to the development of skills and problem-solving capabilities. Lev Vygotsky (1962) is unique in conceptualizing the development of intelligence in fundamentally social terms. He observed that children who displayed similar levels of individual problem-solving skills when operating in isolation often showed marked individual differences when coached by an adult or peer. This discrepancy between aided and unaided performance he referred to as the *zone of proximal development.* Within this zone of proximal development optimal learning occurs if parents, teachers or peers adjust their level of input to take account of children's actual ability levels. With this teaching method, which Vygotsky called *scaffolding*, the teacher gives just enough help to ensure that the pupil has a mastery experience. In clinical practice, helping parents and children define the zone of proximal development and employ scaffolding may be useful in empowering parents to help their children deal with learning difficulties or social adjustment problems.

Language development

Some children show normal intellectual development but delayed language development (Hoff, 2014; Schwartz, 2008). In contrast some individuals with intellectual disabilities show particularly well-developed language skills once they reach 2 to 4 years (Burack et al., 2012).

These two observations suggest that language development is to some degree independent of intellectual development. For this reason language development is best considered separately from cognitive development. However, cognitive developmentalists following in the Piagetian tradition have continued to point out the ways in which linguistic and cognitive development interact. For example, the statement ‘all-gone’ depends upon the child having developed the concept of object permanence.

The milestones of language development and exceptions to these have been well documented in many longitudinal studies (Bates et al., 1988; Hoff, 2014). In utero, the foetus can recognize the mother’s voice and at birth infants orient to voices differently than sounds. Babbling begins at 3 to 4 months and at 7 months is used for both social interaction and personal amusement. By 6 months babbling is affected by sensory input. Evidence for this comes from the fact that deaf children show a gradual cessation of babbling from this age. Children with language problems do not show the characteristic speech-like cadences which characterize babble at the end of the first year and do not show any signs of comprehension or communicative pointing in the way that normal children do. The use of single words begins between 12 and 18 months. By 2 years, most children know 200 words, and before their third birthday the vast majority of children use two-word sentences and grammatical morphemes such as ‘-ed’ and ‘-ing’. Between 3 and 5 years vocabulary, grammar and the accuracy with which words are used to denote concepts increase. Over-extensions (e.g. calling a horse a dog) and under-extensions (e.g. not calling a poodle a dog) of the meanings of words and the coining of new words, where the child has a vocabulary gap, are all common during this period. So too are grammatical inaccuracies such as over-regularization (e.g. house, houses; mouse, mouses).

Delays in the development of linguistic comprehension and expression tend to be associated with poorer outcomes than simple expressive language delays. And those that are more prolonged have a poorer prognosis than transient developmental language delays. They are also associated with greater psychosocial and scholastic difficulties (Bishop et al., 2008). Developmental language delays will be discussed in Chapter 8.

The debate about the relative influences of heredity and environment on language development, exemplified by the exchange in the 1950s between Skinner and Chomsky, has reached a partial resolution (Shaffer & Kipp, 2014). The rapidity of language development and the creativity shown by children in their use of language suggests that the capacity to derive and apply linguistic rules is subserved by some set of genetically based mechanisms. Psycholinguistic theorists have focused their efforts on clarifying the characteristics of these mechanisms, although they are more complex than originally proposed in Chomsky’s original language acquisition device (LAD). However, the finding that severe environmental deprivation, such as being raised by animals in the wild or locked in an attic throughout infancy, can completely arrest language development while subsequent placement in a normal environment can lead to normal levels of linguistic development within a few years points to the importance of the environment in the development of language as initially proposed by Skinner (McNeil et al., 1984; Skuse, 1984).

Environmentalists have focused attention on the way in which parent–child interactions facilitate language development. During their first 4 months, babies cycle between states of attention and inattention. Mothers gradually learn to concentrate their emotional face-to-face interactions with their babies during the infants' periods of attention. This interactional synchrony gives way to turn-taking which may represent the infant's first conversations (Kaye, 1982). Infants of depressed mothers have difficulty establishing interactional synchrony and it may be this that compromises their later adjustment (Field et al., 1990).

A further finding which underpins the important role of environmental factors in language development is the observation that adults in all cultures speak to their children in a unique idiom which has been termed *motherese* (Snow & Ferguson, 1977). Motherese has the following attributes:

- it is simpler than adult speech
- shorter sentences than adult speech are used
- it is more concrete than adult speech
- it involves repetition of what the child said
- the adult expands on what the child said
- the adult's voice is pitched at a higher frequency
- the adult's pattern of intonation is more meaningful.

A third important aspect of parent–child interaction in the development of language is the provision of a series of formats or structured social interactions in which verbal communication occurs. These include looking at books, naming things and playing word and action games and rhymes. Simplification, repetition and correction of errors characterize the parent's behaviour within these formatted interactions. Taken together, these formats comprise the language support system (LASS; Bruner, 1983).

Language is used by children both to control their own behaviour and to engage in speech acts which may be intended to influence others in their social world. Vygotsky (1962) distinguished between private speech, internal speech and social speech. Private speech is used to control the child's own behaviour but is spoken aloud. For example, saying 'up-down, up-down' when playing ball. Internal speech or self-talk is silent. It is used to guide and control the child's own behaviour and appears after the age of 7. Self-instructional training, a procedure where children are coached in the use of internal speech to improve academic or social skills, is commonly used as part of a multi-modal programme involving home- and school-based behavioural management and stimulant medication in the treatment of attention deficit disorder with hyperactivity (Nolan & Carr, 2000). This will be discussed more fully in Chapter 11. Social speech is used for controlling interactions with others and appears by 3 years. Social speech is made up of speech acts such as 'Daddy bobo' which is a request to Daddy for a bottle.

Social development

In the following sections the focus will be on the social development of the child including emotional development, moral development, the development of identity, sex-role development and the development of friendships and peer-group relationships.

Development of emotional intelligence

Emotional intelligence is the ability to understand and regulate emotions. Zeidner et al. (2009) have posed that the development of emotional intelligence is influenced by three interacting processes: (1) genetically determined and biologically based temperament; (2) rule-based learning of emotional competencies; and (3) self-aware, strategic regulation of emotions. There is some evidence for the heritability of emotional intelligence (Vernon et al., 2008), and infants with difficult temperaments find it more challenging to develop emotional intelligence than those with easy temperaments. Rules for recognizing, understanding and managing emotions in the self and others are learned within the context of attachment relationships with parents or caregivers, and interactions with peers and others, through processes such as modelling and reinforcement. Secure attachments to parents and normally developing verbal skills facilitate this process, whereas insecure attachments and language delay inhibit the process. Self-aware, strategic regulation of emotions in self and others is learned through coaching by parents, teachers, peers and others, and by exposure to the media and other cultural influences. The availability of emotionally intelligent coaches and role models facilitates this process. As maturation occurs from infancy to adulthood, there is a gradual shift in the predominance of biological factors as the basis for emotional intelligence to the predominance of social factors.

Research on the development of emotional competence offers insights into probable developmental precursors of emotional intelligence in adulthood. Emotional regulation skills, the skills for expressing emotions and the skills for managing relationships involving emotional give-and-take develop gradually from infancy to adolescence as can be seen from Table 1.3 (Saarni, 1999, 2000; Saarni et al., 2008; Zimmer-Gembeck & Skinner, 2011).

Infancy. During the first year of life infants develop rudimentary self-soothing skills such as rocking and feeding for regulating their emotions. They also develop skills for regulating their attention to allow themselves and their caretakers to co-ordinate their actions to soothe them in distressing situations. They rely on their caretakers to provide emotional support or 'scaffolding' during such stress. During the first year of life there is a gradual increase in non-verbal emotional expression in response to all classes of stimuli, including those under the infant's control and those under the control of others. At birth infants can express interest, as indicated by sustained attention and disgust in response to foul tastes and odours. Smiling, reflecting a sense of pleasure, in response to the human voice appears at 4 weeks. Sadness and anger in response to removing a teething toy are first evident at 4 months. Facial expressions reflecting fear following separation become apparent at 9 months. Infants also show an increasingly sophisticated capacity to discriminate positive and negative emotions expressed by others over the course of their first year of life. The capacity for turn-taking in games such as peek-a-boo develops once children have the appropriate cognitive skills for understanding object constancy. Social referencing also occurs towards the end of the first year where children learn the appropriate emotions to express in a particular situation by attending to the emotional expressions of their caretakers.

Table 1.3 Development of emotional competence

Age	*Regulation of emotions*	*Expression of emotions*	*Managing emotional relationships*
Infancy 0–1 years	• Self-soothing • Regulation of attention to allow co-ordinated action • Reliance on 'scaffolding' from caregivers during stress	• Increased non-verbal emotional expression in response to stimuli under own control and control of others	• Increased discrimination of emotions expressed by others • Turn-taking (peek-a-boo) • Social referencing
Toddlerhood 1–2 years	• Increased awareness of own emotional responses • Irritability when parents place limits on expression of need for autonomy	• Increased verbal expression of emotional states • Increased expression of emotions involving self-consciousness and self-evaluation such as shame, pride or coyness	• Anticipation of feelings towards others • Rudimentary empathy • Altruistic behaviour
Pre-school	• Language (self-talk and communication	• Increased pretending to	• Increased insight into others' emotions • Awareness that false

2–5 years	with others) used for regulating emotions	express emotions in play and teasing	expression of emotions can mislead others about one's emotional state
Kindergarten 5–7 years	• Regulating self-conscious emotions, e.g. embarrassment • Increased autonomy from caregivers in regulating emotions	• Presents 'cool' emotional front to peers	• Increased use of social skills to deal with emotions of self and others • Understanding of consensually agreed emotional scripts
Middle childhood 7–10 years	• Autonomous regulation of emotions is preferred to involving caregivers • Distancing strategies used to manage emotions if child has little control over situation	• Increased use of emotional expression to regulate relationships	• Awareness of feeling multiple emotions about the same person • Use of information about emotions of self and others in multiple contexts as aids to making and maintaining friendships
Pre-adolescence 10–13 years	• Increased efficiency in identifying and using multiple strategies for autonomously regulating emotions and managing stress	• Distinction made between genuine emotional expression with close friends and managed display with others	• Increased understanding of social roles and emotional scripts in making and maintaining friendships
Adolescence 13+ years	• Increased awareness of emotional cycles (feeling guilty about feeling angry) • Increased use of complex strategies to autonomously regulate emotions • Self-regulation strategies are increasingly	• Self-presentation strategies are used for impression management	• Awareness of importance of mutual and reciprocal emotional self-disclosure in making and maintaining friendships

	informed by moral principles

Note: Based on Saarni et al. (2008) and Saarni (2000).

The second year. During the second year of life toddlers show increased awareness of their own emotional responses. They show irritability when parents place limits on the expression of their needs for autonomy and exploration. This irritability is often referred to as the ‘terrible twos’. In their second year infants show increased verbal expression of emotional states and increased expression of emotions involving self-consciousness and self-evaluation such as shame, pride or coyness. This occurs because their cognitive skills allow them to begin to think about themselves from the perspective of others. In relationships they can increasingly anticipate feelings they will have towards others in particular situations. They show rudimentary empathy and altruistic behaviour.

Pre-schoolers. Pre-schoolers between the ages of 2 and 5 years increasingly use language for regulating emotions. They use both internal speech and conversations with others to modulate their affective experience. During this period children increasingly pretend to express emotions in play when teasing or being teased by other children. There is increased insight into the emotions being experienced by others. During this period there is an increased awareness that we can mislead others about what we are feeling by falsely expressing emotions. More sophisticated empathy and altruistic behaviour also develops during the pre-school years.

Kindergarten. Children in kindergarten between the ages of 5 and 7 years increasingly regulate emotions involving self-consciousness such as embarrassment. There is also increased autonomy from caregivers in regulating emotions. Children at this age present a ‘cool’ emotional front to peers. There is also an increased use of social skills to deal with emotions of self and others. During this period children develop an understanding of consensually agreed emotional scripts and their roles in such scripts.

Middle childhood. Children in middle childhood, between the ages of 7 and 10 years, prefer to autonomously regulate their emotional states rather than involving caregivers in this process, as they would have done earlier in their lives. Distancing strategies are used to manage emotions if children have little control over emotionally demanding situations. There is increased use of emotional expression to regulate closeness and distance within relationships. Children become aware that they can feel multiple conflicting emotions about the same person, that they can be angry with someone they like. They use information and memories about the emotions of self and others in multiple contexts as aids to making and maintaining friendships.

Pre-adolescence. During pre-adolescence, between the ages of 10 and 13 years, children show increased efficiency in using multiple strategies for autonomously regulating emotions and managing stress. They make distinctions between genuine emotional expression with close friends and managed emotional displays with others. They develop an increasingly sophisticated understanding of the place of social roles and emotional scripts in making and maintaining friendships.

Adolescence. During adolescence, from 13 to 20 years, there is an increased awareness of complex emotional cycles, for example feeling guilty about feeling angry or feeling ashamed for feeling frightened. In adolescence, youngsters increasingly use complex strategies to autonomously regulate emotions. These self-regulation strategies are increasingly informed by moral principles, beliefs about what is right and good and what is wrong and evil. However, alongside this concern with morality, self-presentation strategies are increasingly used for impression management. Adolescents gradually become aware of the importance of mutual and reciprocal emotional self-disclosure in making and maintaining friendships.

Difficulties with the regulation of anger, fear and sadness may lead to referral to a clinical psychologist. Anger is the principal emotion associated with conduct disorder discussed in Chapter 10. Anxiety and depression will be discussed in Chapters 12 and 16, respectively.

Throughout middle childhood and up until adolescence, the awareness that actions may lead to approval or disapproval by parents and other important attachment figures leads to the internalization of standards of conduct (Killen & Smetana, 2014). This process of internalizing standards permits the experience of complex emotions such as pride, shame and guilt. These emotions have particular implications for moral development.

Moral development

Moral development includes the emergence of moral emotions (such as sympathy, empathy and altruistic desires to help others), moral thinking and reasoning and moral behaviour (Killen & Smetana, 2014; Shaffer & Kipp, 2014; Smith et al., 2011).

Moral emotions, such as experiencing distress when observing the distress of others and the wish to help others and share possessions with others, occur before 2 years of age. Feelings of empathy and pro-social altruistic behaviour emerges once the capacity for perspective-taking develops. In this context the development of 'theory of mind' is important (Doherty, 2008). Theory of mind refers to children's capacity to understand that other people have beliefs, desires and emotions that are not always fully accessible to others (a function noticeably absent in children with autism spectrum disorders, discussed in Chapter 9). The children of parents who model empathy and altruism and use rational non-punitive disciplinary techniques tend to experience empathy and behave altruistically.

Research based on both Piaget's (1932) and Kohlberg's (Colby & Kohlberg, 1987) stage theories of moral development confirm that the basis on which moral judgements are made change with cognitive maturation. Pre-adolescent children believe that moral rules should be obeyed to avoid punishment or for personal gain. In adolescence there is a shift towards believing that moral rules should be obeyed to obtain social approval within relationships and maintain social order within society. In adulthood there is a transition to believing that moral rules should be obeyed because they represent a democratic social contract to protect individual rights or because they represent personal ethical principals. There are sex differences in reasoning about moral dilemmas. Males tend to base their judgements about the morality of an act on the degree to which it conforms to agreed societal rules, whereas females tend to view the moral course of action as that which fulfils their obligations within a personal relationship (Gilligan, 1982).

The capacity to make mature moral judgements does not necessarily imply that these judgements will find expression in moral conduct and pro-social behaviour such as co-operation, sharing and helping. Moral behaviour appears to depend upon the internalization of standards of good conduct. Optimal parenting conditions for internalizing standards and developing moral behaviour involves the following components (Killen & Smetana, 2014; Shaffer & Kipp, 2014):

- promoting secure attachment through sensitive, empathic parenting
- being warm and nurturing
- offering unconditional approval
- responding positively to children's reasonable requests
- having clear rules for what constitutes moral behaviour
- modelling and praising moral behaviour
- giving a rationale for not breaking rules
- responding to rule-breaking with firm (rather than mild) punishments, administered immediately and consistently (rather than later and inconsistently) by a warm (rather than aloof) parent.

The absence of these conditions, along with a variety of other personal and contextual factors, contributes to the development of conduct problems, which will be discussed in Chapter 10.

Development of identity

Harter (2012) tackles the complex problem of personal identity by conceptualizing the functions of self-knowledge, self-evaluation and self-regulation as the three primary components of the self-system. Self-knowledge refers to all that the child knows about herself, but particularly autobiographical memory, which was referred to when we discussed information processing models of intelligence. Self-knowledge also includes insights about how the child functions in her social world. Self-evaluation refers to the way in which children judge themselves against others and against themselves at other developmental stages.

Positive self-evaluations underpin high self-esteem. Self-regulation refers to the capacity to persist in independent focused goal-directed behaviour despite distractions posed by competing internal impulses or external stimuli. Adaptive coping strategies, defence mechanisms and belief systems subserve effective self-regulation.

Self-esteem. A range of factors within the family, school, peer group and society affect the development of self-esteem in childhood (Harter, 2012; Kernis, 2006; Mruk, 2006). Children who have positive experiences within their families, at school, with their friends and within society evaluate themselves positively, whereas those who have non-optimal experiences in these contexts are at risk of developing low self-esteem. Certain types of family experiences have a particularly significant impact on the development of self-esteem. Children whose parents are accepting of their strengths and limitations and set explicit high but attainable standards which they support their children attaining develop high self-esteem. High self-esteem is also associated with a consistent authoritative parenting style in which children are treated with warmth and respect and given opportunities to discuss directives and rules about good conduct. In contrast, children whose parents are inconsistent, permissive, strictly authoritarian, rejecting or abusive develop low self-esteem. Parental example and role modelling also influence the development of self-esteem, and have a greater impact than the verbal advice parents give their children. Parents who cope with life challenges by using an active problem-solving coping style are more likely, through their example, to help their children develop high self-esteem. An avoidant parental coping style is associated with the development of low self-esteem in children. Self-esteem is also influenced by wider social factors. Educational problems in school, peer-group difficulties including bullying and negative social comparisons, and low socio-economic status are all associated with low self-esteem. In contrast, high self-esteem is associated with good academic achievement, supportive peer relationships and high socio-economic status. In adolescence romantic appeal to prospective partners is also a significant determinant of self-esteem.

Self-esteem is relatively stable over time. In a meta-analysis of 59 studies, Huang (2010) found that self-esteem increases slightly from childhood to the first decade of young adulthood, but changes little beyond 30 years, with most change occurring during the first decade of young adulthood.

In a thorough critical review, Baumeister et al. (2003) found that a wide range of indices of psychological, social, educational and occupational adjustment correlate with self-esteem. This has often been erroneously interpreted as indicating that self-esteem causes better adjustment in multiple domains. What is more likely is that better performance in settings such as the peer group and school leads children to evaluate themselves more positively. Baumeister et al. (2003) concluded that available evidence indicates that self-esteem has two main benefits. It leads to greater happiness and a greater tendency to take initiative.

In addition to global self-evaluations, children make evaluations of the self within specific domains such as the family, the school or the peer group. These evaluations lead to domain-specific experiences of self-esteem such as parental self-esteem, social self-esteem or academic self-esteem. Self-report questionnaires such as the Battle (2002) Culture Free Self-Esteem Inventory are useful for assessing domain-specific self-esteem profiles.

Self-regulation. The degree to which children can regulate their emotions and focus on solving specific problems in effective ways depends upon their beliefs about their capacity to control their situation and the specific defence mechanisms and coping strategies that they have at their disposal. A discussion of self-regulatory belief systems and skills will be reserved for Chapter 2.

Self-knowledge. Self-recognition, a rudimentary form of self-knowledge, emerges at about 2 years when children recognize their reflection in a mirror. Self-recognition is associated with secure attachment, and abused children show deficits in this area of self-knowledge (Cicchetti, 1991). Children who show self-recognition are more likely to help another child in distress. As children develop through Piagetian stages their self-descriptions evolve in sophistication (Damon & Hart, 1988). Pre-operational children describe themselves in terms of physical characteristics, possessions and preferences. For example, 'I have blond hair, a scooter and like sausages.' Concrete operational children describe themselves in terms of class membership and personal traits. For example, 'I'm a member of Sutton Dinghy Club and I'm a good sailor.' More complex abstract or hypothetical self-descriptions are given by adolescents who have entered the formal operational period. 'I'm an idealist at heart, but that doesn't mean I shouldn't be able to come up with a practical solution to any problem' is the type of self-description that typifies this period of cognitive development.

The particular issues about which important self-descriptions are made at different stages in the development of identity have been extensively described by Erikson (1968). Newman & Newman's (2015) modification of Erikson's model of psychosocial development is presented in Table 1.4. At each stage of social development, according to this model, the individual must face a personal dilemma. The way in which each dilemma is resolved influences the way in which individuals describe themselves, and the type of resolution that is reached is dependent upon the youngster's social context. The main psychosocial dilemma to be resolved during the first 2 years of life is trust versus mistrust. If parents are responsive to infants' needs in a predictable and sensitive way, the infant develops a sense of trust. In the long term, this underpins a capacity to have hope in the face of adversity and to trust, as adults, that difficult challenges can be resolved. If the child does not experience the parent as a secure base from which to explore the world, the child learns to mistrust others and this underpins a view of the world as threatening. This may lead the child to adopt a detached position during later years, and difficulties with making and maintaining peer relationships may occur.

The main psychosocial dilemma in the pre-school years is autonomy versus shame and doubt. During this period children become aware of their separateness and strive to establish a sense of personal agency and impose their will on the world. Sometimes this is possible, but other times their parents will prohibit them from doing certain things. There is a gradual moving from the battles of the terrible twos to the ritual orderliness that many children show as they approach school-going age. Routines develop for going to bed or getting up, mealtimes and playtimes. The phrase ‘I can do it myself’ for tying shoelaces or fastening buttons is an example of appropriate channelling of the desire to be autonomous. If parents patiently provide the framework for children to master tasks and routines, autonomy and a sense of self-esteem develop. As adults such children are patient with themselves and have confidence in their abilities to master the challenges of life. They have high self-esteem and a strong sense of will and self-efficacy. If parents are unable to be patient with the child’s evolving wilfulness and need for mastery and criticize or humiliate failed attempts at mastery, the child will develop a sense of self-doubt and shame. The lack of patience and parental criticism will become internalized and children will evolve into adults who criticize themselves excessively and who lack confidence in their abilities. In some instances this may lead to the compulsive need to repeat their efforts at problem solving so that they can undo the mess they have made and so cope with the shame of not succeeding.

Table 1.4 Newman’s revision of Erikson’s psychosocial stage model

Stage	*Dilemma and main process*	*Virtue and positive self-description*	*Pathology and negative self-description*
Infancy **0–2 years**	**Trust v. mistrust** Mutuality with caregiver	**Hope** I can attain my wishes	**Withdrawal** I will not trust others
Toddlerhood **2–4 years**	**Autonomy v. shame and doubt** Imitation	**Will** I can control events	**Compulsion** I will repeat this act to undo the mess that I have made and I doubt that I can control events and I am ashamed of this
Early school age **4–6 years**	**Initiative v. guilt** Identification	**Purpose/curiosity** I can plan and achieve goals	**Inhibition** I can’t plan or achieve goals so I don’t act
Middle childhood **6–12 years**	**Industry v. inferiority** Education	**Competence** I can use skills to achieve goals	**Inertia** I have no skills so I won’t try
Early adolescence **12–18 years**	**Group identity v. alienation** Peer pressure	**Affiliation** I can be loyal to the group	**Isolation** I cannot be accepted into a group
	Identity v.		

Later adolescence **18–24 years**	**identity confusion** Role experimentation	**Fidelity to values** I can be true to my values	**Confusion** I have uncertainty about my values and role
Early adulthood **24–34 years**	**Intimacy v. isolation** Mutuality with peers	**Love** I can be intimate with another	**Exclusivity** I have no time for others so I will shut them out
Middle adulthood **34–60 years**	**Generativity v. stagnation** Person–environment fit and creativity	**Care** I am committed to making the world a better place	**Rejectivity** I do not care about the future of others, only my own future
Later adulthood **60–75 years**	**Integrity v. despair** Introspection	**Wisdom** I am committed to life, have a deep flexible understanding of it but I know I will die soon	**Disdain** I am disgusted at my frailty and my failures and express this as disdain for others
Elderhood **75–Death**	**Immortality v. extinction** Social support	**Confidence** I know that my life has meaning	**Diffidence** I can find no meaning in my life so I doubt that I can act

Note: Adapted from Newman & Newman (2015) and Erikson (1968).

At the beginning of school-going years the main psychosocial dilemma is initiative versus guilt. When children have developed a sense of autonomy in the pre-school years, they turn their attention outwards to the physical and social world and use their initiative to investigate and explore its regularities with a view to establishing a cognitive map of it. Children find out what is allowed and what is forbidden at home and at school. Many questions about how the world works are asked. Children conduct various experiments and investigations, for example, by lighting matches, taking toys apart, or playing doctors and nurses. The initiative versus guilt dilemma is resolved when the child learns how to channel the need for investigation into socially appropriate courses of action. This occurs when parents empathize with the child's curiosity but establish the limits of experimentation clearly and with warmth. Children who resolve the dilemma of initiative versus guilt act with a sense of purpose and vision as adults. Where parents have difficulty empathizing with the child's need for curiosity and curtail experimentation unduly, children may develop a reluctance to explore untried options as adults because such curiosity arouses a sense of guilt.

In middle childhood the main psychosocial dilemma is industry versus inferiority. Having established a sense of trust, autonomy and initiative, the child's need to develop skills and engage in meaningful work emerges. The motivation for industry may stem from the fact that learning new skills is intrinsically rewarding, and many tasks and jobs open to the child may be rewarded. Children who have the aptitude to master skills that are rewarded by parents, teachers and peers emerge from this stage of development with new skills and a sense of competence and self-efficacy. Unfortunately, not all children have the aptitude for skills that are valued by society. So youngsters who have low aptitudes for literacy skills, sports and social conformity are disadvantaged from the start. This is compounded by the fact that in our culture, social comparisons are readily made through, for example, streaming in schools and sports. In our society, failure is ridiculed. Youngsters who fail and are ridiculed or humiliated develop a sense of inferiority and in adulthood lack the motivation to achieve.

The young adolescent faces a dilemma of group identity versus alienation. There is a requirement to find a peer group with which to become affiliated so that the need for belonging will be met. Joining such a group, however, must not lead to sacrificing one's individuality and personal goals and aspirations. If young adolescents are not accepted by a peer group they will experience alienation. In the longer term they may find themselves unaffiliated and have difficulty developing social support networks which are particularly important for health and well-being. To achieve group identity, their parents and school need to avoid over-restriction of opportunities for making and maintaining peer relationship. This has to be balanced against the dangers or over-permissiveness since lack of supervision is associated with conduct problems and drug dependence.

While the concern of early adolescence is group membership and affiliation, the establishment of a clear sense of identity – that is, a sense of who I am – is the major concern in late adolescence. Marcia (2007) has found that adolescents may achieve one of four identity states. With identity diffusion there is no firm commitment to personal, social, political or vocational beliefs or plans. Such individuals are either fun-seekers or people with adjustment difficulties and low self-esteem. With foreclosure, vocational, political or religious decisions are made for the adolescent by parents or elders in the community and are accepted without a prolonged decision-making process. These adolescents tend to adhere to authoritarian values. In cases where a moratorium is reached, the adolescent experiments with a number of roles before settling on an identity. Some of these roles may be negative (delinquent) or non-conventional (dropout/commune dweller). However, they are staging posts in a prolonged decision-making process on the way to a stable identity. Where adolescents achieve a clear identity following a successful moratorium, they develop a strong commitment to vocational, social, political and religious values and usually have good psychosocial adjustment in adulthood. They have high self-esteem, realistic goals and a stronger sense of independence and are more resilient in the face of stress. Where a sense of identity is achieved following a moratorium in which many roles have been explored, the adolescent avoids the problems of being aimless, as in the case of identity diffusion, or trapped, which may occur with foreclosure. Parents may find allowing adolescents the time and space to enter a moratorium before achieving a stable sense of identity difficult, and referral for psychological consultation may occur.

The major psychosocial dilemma for people who have left adolescence is whether to develop an intimate relationship with another or move to an isolated position. People who do not achieve intimacy experience isolation. Isolated individuals have unique characteristics (Newman & Newman, 2015). Specifically, they overvalue social contact and suspect that all social encounters will end negatively. They also experience social anxiety and lack the social skills, such as empathy or affective self-disclosure, necessary for forming intimate relationships. These difficulties typically emerge from experiences of mistrust, shame, doubt, guilt, inferiority, alienation and role confusion associated with failure to resolve earlier developmental dilemmas and crises in a positive manner. A variety of social and contextual forces contribute to isolation. Our culture's emphasis on individuality gives us an enhanced sense of separateness and loneliness. Our culture's valuing of competitiveness (particularly among males) may deter people from engaging in self-disclosure. Men have been found to self-disclose less than women, to be more competitive in conversations and to show less empathy.

Parents of very young children referred for consultation may struggle with the dilemma of intimacy versus isolation and those of older children often face the midlife dilemma of generativity versus stagnation. Parents who select and shape a home and work environment that fits with their needs and talents are more likely to resolve this dilemma by becoming productive. Productivity may involve procreation, work-based productivity or artistic creativity. Those who become productive focus their energy into making the world a better place for further generations. Those who fail to select and shape their environment to meet their needs and talents may become overwhelmed with stress and become burnt out, depressed or cynical on the one hand or greedy and narcissistic on the other.

In later adulthood the dilemma faced is integrity versus despair, and this issue is often of concern to grandparents of children referred for psychological consultation. A sense of personal integrity is achieved by those who accept the events that make up their lives and integrate these into a meaningful personal narrative in a way that allows them to face death without fear. Those who avoid this introspective process or who engage in it and find that they cannot accept the events of their lives or integrate them into a meaningful personal narrative that allows them to face death without fear develop a sense of personal despair and may express this as disdain for others. The process of integrating failures, disappointments, conflicts, growing incompetencies and frailty into a coherent life story is very challenging and is difficult to do unless the first psychosocial crisis of trust versus mistrust was resolved in favour of trust. The positive resolution of this dilemma in favour of integrity rather than despair leads to the development of a capacity for wisdom.

In the final months of life the dilemma faced by the very old is immortality versus extinction. A sense of immortality can be achieved by living on through one's children; through a belief in an afterlife; by the permanence of one's achievements (either material monuments or the way one has influenced others); by viewing the self as being part of the chain of nature (the decomposed body becomes part of the earth that brings forth new life); or by achieving a sense of experiential transcendence (a mystical sense of continual presence). When a sense of immortality is achieved the acceptance of death and the enjoyment of life, despite frailty, becomes possible. This is greatly facilitated when people have good social support networks to help them deal with frailty, growing incompetence and the possibility of isolation. Those who lack social support and have failed to integrate their lives into a meaningful story may fear extinction and find no way to accept their physical mortality while at the same time evolving a sense of immortality.

Newman and Newman's (2015) adaptation of Erikson's model has received support from many studies and offers a useful framework within which to conceptualize individual psychosocial development across the lifespan. However, it appears that the stages do not always occur in the stated order, and often later life events can lead to changes in the way in which psychosocial dilemmas are resolved.

Sex-role development

One particularly important facet of identity is the sex role (Blakemore et al., 2009). From birth to 5 years children go through a process of learning the concept of gender. They first distinguish between the sexes and categorize themselves as male or female, usually by the age of 3 years. Between 5 and 7 years they realize that gender is stable and does not change from day to day. Finally they realize that there are critical differences (such as genitals) and incidental differences (such as clothing) that have no effect on gender. It is probable that during this period they develop gender scripts which are representations of the routines associated with their gender roles. On the basis of these scripts they develop gender schemas which are cognitive structures used to organize information about the categories male and female.

Extensive research has shown that in Western culture sex-role toy preferences, play, peer-group behaviour and cognitive development are different for boys and girls. Boys prefer trucks and guns. Girls prefer dolls and dishes. Boys do more outdoor play with more rough and tumble, and less relationship-oriented speech. They pretend to fulfil adult male roles such as warriors, heroes and firemen. Girls show more nurturing play involving much relationship conversation and pretend to fulfil stereotypic adult female roles such as homemakers. As children approach the age of 5 they are less likely to engage in play which is outside their sex role. A tolerance for cross-gender play evolves in middle childhood and diminishes again at adolescence. Boys play in larger groups whereas girls tend to limit their group size to two or three.

There are some well-established gender differences in the abilities of boys and girls. Girls show more rapid language development than boys and earlier competence at maths. In adolescence, boys' competence in maths exceeds that of girls and their language differences even out. Males perform better on spatial tasks than girls throughout their lives. With regard to activities, as a group girls on average are more emotionally expressive and compliant, and boys are more physically active and aggressive. These gender differences are small and refer to group averages.

Biological factors and socialization experiences within the family, school peer group and wider society contribute to the development of sex roles. Within the family sex-role behaviour is influenced by parents' treatment of children (differential expectations and reinforcement) and by children's response to parents (identification and imitation). Numerous studies show that parents expect different sex-role behaviour from their children and reward children for engaging in these behaviours. Boys are encouraged to be competitive and activity oriented. Girls are encouraged to be co-operative and relationship oriented. A problem with traditional sex roles in adulthood is that they have the potential to lead to a power imbalance within marriage, an increase in marital dissatisfaction, a sense of isolation in both partners and a decrease in father involvement in childcare tasks – issues that often come to the fore in family therapy (Carr, 2012).

However, rigid sex roles are now being challenged and the ideal of androgyny is gaining in popularity. The androgynous youngster develops both male and female role-specific skills. Gender stereotyping is less marked in families where parents behaviour is less sex-typed, where both parents work outside the home, and in single-parent families. Gender stereotyping is also less marked in families with high socio-economic status.

Gay and lesbian identity formation

For gay and lesbian adolescents, self-definition and 'coming out' are two significant transitional processes (Green, 2012; Laird & Green, 1996; Patterson & D'Augelli, 2013).

The first process – self-definition as a gay or lesbian person – occurs initially in response to experiences of being different or estranged from same-sex heterosexual peers and later in response to attraction to and/or intimacy with peers of the same gender. The adolescent typically faces a dilemma of whether to accept or deny the homoerotic feelings he or she experiences. The way in which this dilemma is resolved is in part influenced by the perceived risks and benefits of denial and acceptance. Where adolescents feel that homophobic attitudes within their families, peer groups and society will have severe negative consequences for them, they may be reluctant to accept their gay or lesbian identities. Attempts to deny homoerotic experiences and adopt a heterosexual identity may lead to a wide variety of psychological difficulties including depression, substance abuse, running away and suicide attempts, all of which may become a focus for therapy. In contrast, where the family and society are supportive and tolerant of diverse sexual orientations, and where there is an easily accessible supportive gay or lesbian community, then the benefits of accepting a gay or lesbian identity may outweigh the risks, and the adolescent may begin to form a gay or lesbian self-definition. Once the process of self-definition as gay or lesbian occurs, the possibility of 'coming out' to others is opened up. This process of coming out involves coming out to other lesbian and gay people, to heterosexual peers, and to members of the family. The more supportive the responses of members of these three systems, the better the adjustment of the individual.

In response to the process of 'coming out' families undergo a process of destabilization. They progress from subliminal awareness of the young person's sexual orientation to absorbing the impact of this realization and adjusting to it. Resolution and integration of the reality of the youngster's sexual identity into the family belief system depends upon the flexibility of the family system, the degree of family cohesion and the capacity of core themes within the family belief system to be reconciled with the youngster's sexual identity. Therapy conducted within this frame of reference aims to facilitate the processes of owning homoerotic experiences, establishing a gay or lesbian identity and mobilizing support within the family, heterosexual peer group, and gay or lesbian peer group for the individual.

Peer group

Research on the development of friendships and peer-group behaviour has led to a number of findings of relevance to the practice of clinical psychology (Rubin et al., 2009). Over the first 5 years, with increasing opportunities for interaction with others and the development of language, interaction with other children increases. Co-operative play premised on an empathic understanding of other children's viewpoints gradually emerges and is usually fully established by middle childhood. Competitive rivalry (often involving physical or verbal aggression or joking) is an important part of peer interactions, particularly among boys. This allows youngsters to establish their position of dominance within the peer-group hierarchy. It has already been mentioned that there are important sex differences in styles of play adopted, with girls being more co-operative and relationship focused and boys being more competitive and activity focused. Boys tend to play in larger peer groups whereas girls tend to play within small groups characterized by emotionally intimate exclusive friendships. Sex-segregated play is almost universal in middle childhood.

Peer friendships are important because they constitute an important source of social support and a context within which to learn about the management of networks of relationships. Children who are unable to make and maintain friendships, particularly during middle childhood and early adolescence, are at risk for the development of psychological difficulties. Children who have developed secure attachments to their parents are more likely to develop good peer friendships. This is probably because their experience with their parents provides them with a useful cognitive model on which to base their interactions with their peers. Children reared in institutions have particular difficulty with peer relationships in their teens.

Children with well-developed emotional intelligence or social-emotional competence, easy rather than difficult temperaments, and secure rather than insecure attachment styles tend to have few difficulties developing peer relationships and are more likely to become popular. At all developmental stages, popular children are described by their peers as helpful, friendly, considerate and capable of following rules in games and imaginative play. They also tend to be more intelligent and physically attractive than average. They accurately interpret social situations and have the social skills necessary for engaging in peer-group activities. About 10–15% of children are rejected by their peer group. In middle childhood two main types of unpopular child may be distinguished: the aggressive youngster and the victim. Victims tend to be sensitive and anxious, have low self-esteem and lack the skills required to defend themselves and establish dominance within the peer-group hierarchy. They are often the targets for bullies. Unpopular aggressive children are described by peers as disruptive, hyperactive, impulsive and unable to follow rules in games and play. Their aggression tends to be used less for establishing dominance or a hierarchical position in the peer group and more for achieving certain instrumental goals. For example, taking a toy from another child.

Popular children are effective in joining in peer-group activities. They hover on the edge, tune in to the group's activities and carefully select a time to become integrated into the group's activities. Unpopular children, particularly the aggressive type, do not tune in to group activities. They tend to criticize other children and talk about themselves rather than listen to others. Warmth, a sense of humour and sensitivity to social cues are important features of socially skilled children. Unpopular children, particularly the aggressive type, are predisposed to interpreting ambiguous social cues negatively and becoming involved in escalating spirals of negative social interaction.

Unpopularity is relatively stable over time. A child who is unpopular this year is likely to remain so next year, and this unpopularity is not wholly based on reputation. For the aggressive unpopular child, inadequate cognitive models for relationships, difficulties in interpreting ambiguous social situations and poor social skills appear to be the main factors underpinning this stability of unpopularity. For the unpopular victim the continued unpopularity is probably mediated by low self-esteem, avoidance of opportunities for social interaction and a lack of pro-social skills. Also, both types of unpopular children miss out on important opportunities for learning about co-operation, teamwork and the management of networks of friendships. While unpopularity is not uniformly associated with long-term difficulties, it appears to put such youngsters at risk for developing academic problems, dropping out of school, conduct problems in adolescence, mental health problems in adulthood and criminality.

Unpopular children may benefit from social skills training. The central features of effective social skills programmes have been described by Malik & Furman (1993). First, they are offered in a group format which has the advantage of providing participants with a ready-made social laboratory within which to rehearse and obtain feedback on the skills learned. Second, successful programmes focus on broad social competencies such as listening skills, self-disclosing skills, turn-taking and handling teasing rather than discrete behavioural skills such as maintaining eye contact. Third, it has also been found that effective social skills programmes for unpopular aggressive children include anger-management training. Here youngsters learn to interpret ambiguous social situations in less threatening ways and to manage their aggressive impulses in ways that do not lead to escalating violent exchanges. Programmes that require unpopular children and their natural peer group at school to engage co-operatively in structured games or activities have been found to decrease unpopularity and so may supplement the benefits of social skills training, by creating opportunities within which newly acquired social skills may be deployed.

Effective bullying prevention programmes address some of the problems faced by unpopular victims and unpopular aggressive bullies (Mishna, 2012; Sanders & Phye, 2004). Olweus's (1993) approach described in *Bullying at School – What We Know and What We Can Do* is a particularly good example of such a programme. The approach aims to create a social context in which adults (school staff and parents) show positive interest and warmth towards pupils and use consistent non-aggressive sanctions for aggressive behaviour in a highly consistent way. The programme involves a high level of surveillance of children's activities and a high level of communication between parents and teachers.

Summary

Child development, with its physical, cognitive and social facets, occurs within the context of the family lifecycle. The family lifecycle may be conceptualized as a series of stages, each characterized by a set of tasks family members must complete to progress to the next stage. With respect to physical development, children progress through an ordered sequence of milestones. Environmental factors such as socio-economic status and nutrition in addition to genetic factors can alter the rate of progression through these milestones, and this may have consequences for social adjustment. For example, at adolescence early maturing girls show adjustment problems whereas early maturing boys do not. Brain growth early in life is rapid; involves neurogenesis, neural migration, myelination, synaptogenesis and pruning; and is the product of both genetically driven maturation and learning experiences.

Three different approaches have been taken to the study of cognitive development. Piaget's stage-based cognitive developmental theory shows how problem solving at different stages of development is based on different representational cognitive structures. The information-processing approach to cognition highlights the way different strategies are used to solve problems so that the output of a limited information processing capacity is maximized. The psychometric approach to intelligence focuses on how abilities are organized and how individual differences in these abilities are distributed within populations. A minimum level of cognitive development is essential for language acquisition, but once this level is reached language and cognition develop relatively independently. While language acquisition depends in part upon a genetically furnished physiological substrate, finely tuned social interaction is the critical environmental condition for optimal linguistic development.

Various aspects of social development such as the development of emotional intelligence, morality, identity, sex-role and peer relationships are all paced to some degree by the cognitive development of the child. Complex emotions like embarrassment, moral judgements based on abstract principles, sophisticated self-knowledge and self-regulatory strategies all require cognitive maturity. However, moral conduct is relatively independent of advanced moral reasoning capabilities and is determined in large part by an authoritative parenting style. Adaptive peer relations depend to a large degree on the prior experience of secure attachment. The functions of self-knowledge, self-evaluation and self-regulation are the three primary components of the self-system. Accurate self-knowledge, high self-esteem, and self-regulatory beliefs, defences and coping strategies all contribute to positive adjustment.

Exercise 1.1

Work in pairs. One person take the role of interviewer and the other take the role of interviewee. The interviewer should take 20 minutes to ask the interviewee about their physical, cognitive and social development within the overall context of their family's lifecycle.

- List the particular events that the interviewee says stand out in their memory about their physical and intellectual growth.
- Specify how particular physical and intellectual strengths have helped their social development.
- Specify how the interviewee resolved the various psychosocial dilemmas listed in Table 1.4.
- Specify if the interviewee was socialized into a traditional or a non-traditional sex role.
- Specify any special role peers played in the interviewee's development.
- List any unusual events that have happened within the family lifecycle to affect their development.

The interviewer should then check the accuracy of their conclusions with the interviewee. Reverse roles and repeat the exercise.

Further reading

McGoldrick, M., Carter, B., & Garcia-Preto, N. (2011). *The expanded family lifecycle. Individual, family and social perspectives* (4th ed.). Boston: Allyn & Bacon.

Smith, P., Cowie, H., & Blades, M. (2011). *Understanding children's development* (5th ed.). Chichester: Wiley.

Websites

Developmental psychology websites

American Academy of Pediatrics: http://www.healthychildren.org/english/ages-stages/Pages/default.aspx

APA Division 7, Dev. Psych.: http://classweb.gmu.edu/awinsler/div7/links.shtml

National Health Service: http://www.nhs.uk/Tools/Pages/birthtofive.aspx#close

Online developmental psychology library: http://www.questia.com

University of Georgia Better Brains for Babies: http://www.bbbgeorgia.org/index.php

Zero to Three: http://www.zerotothree.org/child-development/brain-development/baby-brain-map.html

Psychological association websites

American Psychological Association: http://www.apa.org

Australian Psychological Society: http://www.aps.psychsociety.com.au/

British Psychological Society: http://www.bps.org.uk/

Canadian Psychological Association: http://www.cpa.ca/

European Federation of Psychologists' Associations (EFPA): http://www.efpa.be/

International Union of Psychological Science (IUPsyS): http://www.iupsys.org/

New Zealand Psychological Society: http://www.psychology.org.nz/

Psychological Society of Ireland: http://www.psihq.ie/

World Health Organization: http://www.who.int/en/

Chapter 2

Influences on problem development

The development of psychological problems in children and adolescents is influenced by many factors. A distinction may be made between risk factors which predispose children to developing psychological problems, precipitating factors which trigger the onset or marked exacerbation of psychological difficulties, maintaining factors which perpetuate psychological problems once they have developed, and protective factors which prevent further deterioration and have implications for prognosis and response to treatment. Predisposing risk factors, protective factors and maintaining factors may be sub-classified as falling into the personal or contextual domains, with personal factors referring to biological and psychological characteristics of the child and contextual factors referring to features of the child's psychosocial environment including the family, the school, the peer group and involved treatment agencies. A framework within which some of the more important variables in each of these categories are classified is presented in Figure 2.1. The variables listed within this framework are associated with a range of psychological problems. In this chapter the variables listed in this framework will be considered. The framework in Figure 2.1 was developed to aid case formulation in clinical practice. Modified versions of this formulation framework, which take account of additional factors to consider when dealing with specific clinical presentations, will be presented in Chapters 6–18.

Personal predisposing factors

Both biological and psychological factors may predispose children to developing psychological problems. Biological predisposing factors include genetic vulnerabilities, the consequences of pre-natal and peri-natal complications and the sequelae of early insults, injuries and illnesses (Harris, 2008; Nelson & Jeste, 2008; Rutter, 2006; Rutter & Casaer, 1991). Psychological predisposing factors include low intelligence, difficult temperament, negative personality traits, low self-esteem and an external locus of control (Ingram & Price, 2010). These biological and psychological predisposing factors will be considered in turn.

Genetic factors

Twin and adoption studies show that genetic factors influence the development of many psychological characteristics such as temperament, major personality traits and intelligence (Maltby et al., 2013). These characteristics are about 50% heritable. Genetic factors also play a role in the aetiology of many psychological problems (Rutter, 2006). The mechanism of influence for both broad psychological characteristics and specific psychological problems is usually polygenetic. With the exception of some disorders (e.g. Down syndrome), genetic factors determine the development of specific psychological problems through their influence on broader psychological characteristics such as temperament. Current evidence does not support the view that most childhood psychological problems are unalterably genetically determined. Rather genetic factors render children vulnerable to developing psychological problems in certain environmental contexts.

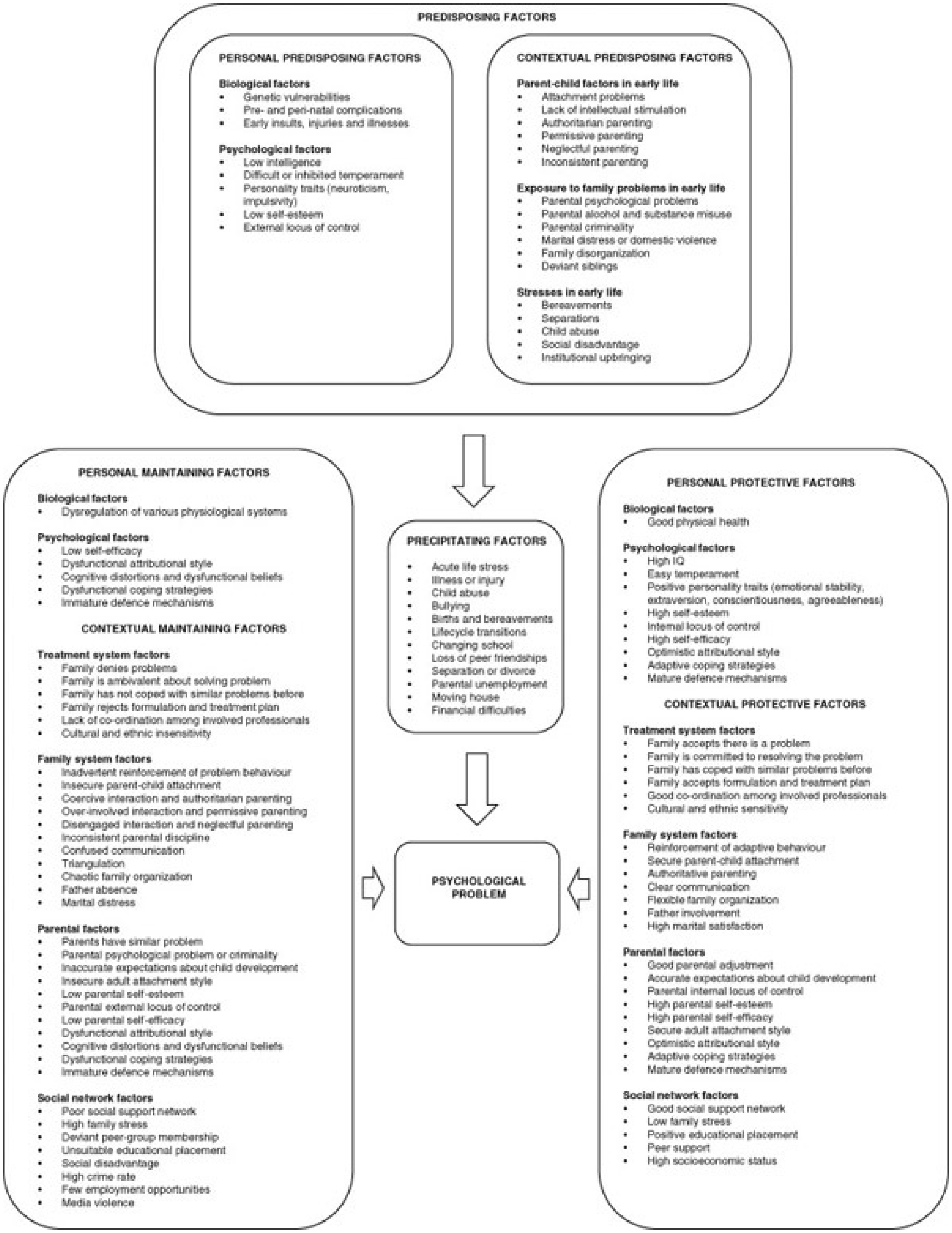


Figure 2.1 Predisposing, precipitating, maintaining and protective factors for child and adolescent psychological problems

Pre-natal and peri-natal complications

Pre-natal intrauterine adversities and peri-natal complications may predispose children to developing psychological difficulties. The intrauterine environment may entail hazards which compromise the healthy development of the foetus (Rutter & Casaer, 1991; Zimmerman & Connors, 2011). Maternal age, blood-type incompatibility, malnutrition, smoking, alcohol use and drug use are among the factors that may negatively impact on the intrauterine environment. For example, the progeny of women who abuse alcohol while pregnant may develop *foetal alcohol syndrome*, a condition characterized by microcephaly, intellectual disability and craniofacial anomalies (Memo et al., 2013). Infections such as rubella, syphilis and AIDS may be transmitted from the mother to the foetus. Often infants who have developed in a hazardous intrauterine environment have *low birth weight* (less than 4.5 lbs. or 2,000 grams) or their size in relation to their gestation period is sufficiently below average to be described clinically as *small-for-dates*. In comparison with brain damage in later life, pre-natal brain damage is less likely to result in specific deficits and more likely to result in a general lowering of academic and intellectual abilities because specialization of function does not occur until later in the development of the central nervous system.

Peri-natal brain insults associated with anoxia or cortical tissue damage can lead to later cognitive impairment and psychological adjustment problems (Aylward, 2009). A variety of birth complications are associated with such neurological damage including forceps delivery, breech delivery, a difficult passage through the birth canal and accidental twisting of the umbilical cord. The infant's post-natal medical status is typically expressed as an Apgar score. Apgar scores range from 0–10, with scores below 4 reflecting sufficient difficulties to warrant intensive care. The score is based on an evaluation of the infant's skin colour (with blue suggesting anoxia), respiration, heart rate, muscle tone and response to stimulation.

Premature infants are particularly susceptible to brain injury during birth. Because it is not sufficiently developed, the skull of the premature infant does not provide the protection offered by that of the full-term infant. Neurological damage sustained during the peri-natal period by premature infants is most commonly associated in later life with attention problems and hyperactivity (Aylward, 2009). While most premature infants suffer some developmental delay, with adequate medical care, maternal care and stimulation they catch up with their full-term counterparts before starting school.

Physical insults, injuries and illnesses

Childhood head injuries are associated with the development of cognitive impairment, disinhibition and behavioural problems, although the nature and extent of these sequelae depend upon pre-morbid IQ, the severity and location of the injury and the social context within which injury and recovery occur (Johnson et al., 2009; Semrud-Clikeman, 2001). For example, the overall psychological consequences for a child with an intellectual disability who sustains a severe head injury as a result of intrafamilial physical child abuse which leads to a multi-placement experience will be significantly worse than that of a child or normal intelligence who sustains a less severe injury through a road traffic accident and who recovers within a stable family context. A fuller discussion of head injury will be presented in Chapter 8.

Chronic diseases such as asthma or diabetes and life-threatening illnesses such as cancer or cystic fibrosis may impact on psychological adjustment insofar as they are biopsychosocial stresses which place chronic demands on the child and family (Roberts & Steele, 2009). In Chapters 14 and 24 the adjustment of children and their families to such conditions will be discussed.

Temperament and personality traits

Temperament refers to biologically based behavioural patterns present from birth (Zentner & Shiner, 2012). In certain social contexts particular temperaments may predispose children to develop psychological problems. In their 25-year longitudinal study of 133 children, Chess and Thomas (1995) classified infants into three sub-groups: difficult temperament, easy temperament and slow to warm up. Difficult temperament children, who constituted 10% of the group studied, had difficulty establishing regular routines for eating, toileting and sleeping. They tended to avoid new situations and responded to change with intense negative emotions. These difficult temperament children were found to be at risk for developing psychological difficulties, especially behavioural problems, a finding that has been replicated in many subsequent studies (Zentner & Shiner, 2012). Thomas and Chess found that difficult temperament children had more conflict with parents, peers and teachers. They elicited negative reactions from caretakers and tended to choose a peer group later in life that engaged in deviant, risky activities. Difficult temperament children adjust better when there is a *goodness-of-fit* between their temperament and parental expectations. Difficult temperament children need tolerant, responsive parents if they are to avoid developing psychological problems. Thomas and Chess found that easy temperament children, who constituted 40% of the sample, established regular patterns for feeding, toileting and sleeping. They approached, rather than avoided, new situations and adapted easily to such environmental changes while showing positive mood responses of mild or moderate intensity. Easy temperament children had a good prognosis. They attracted adults and peers to form a supportive network around them. Easy temperament is therefore a protective factor. Fifteen per cent of Thomas and Chess's sample were classified as slow to warm up and showed mild negative emotional responses to new situations. After repeated contact, adaptation occurred. These children were also characterized by moderate levels of regularity in feeding, toileting and sleeping. The prognosis for this group was halfway between that of the easy and difficult temperament groups. The remainder of the sample were not classifiable into one of these three categories.

Using a different framework, Kagan (2012) has classified children into those with inhibited and uninhibited temperaments. About one in six children may be classified as having inhibited temperament. Such children are shy, timid and withdrawn in new situations. A higher proportion of youngsters with an inhibited temperamental style have parents with anxiety and mood disorders. This temperamental style is a risk factor for anxiety and mood disorders in childhood.

Personality traits are enduring personal characteristics which influence behaviour, cognition and affect. Temperament and experience together provide a basis for the development of personality traits (De Pauw & Mervielde, 2010; Matthews et al., 2009). Through their interactions with parents, caregivers, teachers, peer groups and others, children with biologically based temperaments develop relatively enduring patterns of thinking, feeling and behaving. Certain traits render children vulnerable to developing psychological problems. For example, high levels of impulsivity may predispose young people to developing behavioural and substance use problems, while high levels of neuroticism may predispose children to developing anxiety, mood and eating disorders.

Cognitive ability and beliefs about self-worth and personal control

Certain personal psychological characteristics may render children vulnerable to developing psychological difficulties, notably limited cognitive ability or learning difficulties, negative self-evaluative beliefs and beliefs in personal powerlessness (Price & Zwolinski, 2010). Limited cognitive ability and learning difficulties as measured by IQ tests are risk factors for conduct disorders. Low self-evaluative beliefs as assessed by measures of self-esteem place children at risk for common psychological problems including conduct and emotional disorders, as well as other conditions such as eating disorders. Entrenched beliefs about having little control over significant aspects of one's life (especially sources of reinforcement) are also associated with a range of psychological problems. Such beliefs are reflected in an external locus of control (Rotter, 1966).

Personal maintaining factors

Once psychological problems have developed they may be maintained at a personal level by both biological and psychological and factors. At a biological level, dysregulation of various physiological systems, especially neurobiological systems, may maintain psychological problems (Charney et al., 2013; Roberts & Steele, 2009; Rutter et al., 2008). Beliefs about self-regulation and self-regulatory skills are important psychological maintaining factors. In particular, youngsters' psychological problems may be maintained by low self-efficacy beliefs, dysfunctional attributions, cognitive distortions, dysfunctional attitudes and coping strategies, and immature defence mechanisms (Bandura, 1997; Cramer, 2006; Folkman, 2011; Jacobs et al., 2008).

Biological maintaining factors

Abnormal levels of physiological arousal, dysregulation of neurotransmitter systems, dysregulation of neuroendocrine systems, abnormal circadian rhythms and a variety of abnormalities in other bodily systems have been implicated (with varying degrees of empirical support) in the maintenance of some psychological problems (Charney et al., 2013; Roberts & Steele, 2009; Rutter et al., 2008). Typically, specific biological maintaining factors are associated with specific conditions. For example, dysregulation of various neurotransmitter systems have been implicated in the maintenance of ADHD, anxiety, depressive and psychotic disorders (Chapters 11, 12, 16 and 18); megacolon (an enlarged colon) is associated specifically with the maintenance of encopresis (Chapter 7); and the neuroendocrine consequences of starvation are associated specifically with the maintenance of anorexia nervosa (Chapter 17). Because of the specificity of biological factors, further discussion of them will be reserved for Chapters 6–18, in which specific problems are discussed in detail.

Self-regulatory beliefs

Children's psychological problems may be maintained by problematic belief systems which compromise their capacity to regulate their emotions and behaviour. These include low self-efficacy beliefs, dysfunctional attitudes and attributions and cognitive distortions (Bandura, 1997; Jacobs et al., 2008). When children are successful at completing a task and when they attribute their successes to their abilities, they develop a sense of self-efficacy (Bandura, 1997). That is, a belief that they will be effective at similar tasks in the future. High levels of self-efficacy are associated with more effective task completion, but children with low self-efficacy tend not to persist in trying to solve their problems and so low self-efficacy may maintain psychological difficulties.

Where youngsters fail at academic, social or chronic illness management tasks and receive feedback from their parents or teachers that their failure was due to lack of ability or an uncontrollable disease process (rather than effort), they may develop a sense of learned helplessness and a depressive attributional style. That is, a belief that no matter how hard they try, they can never succeed, and a tendency to attribute failure to internal, global, stable factors such as lack of ability or physiological factors beyond their control. In contrast, successes are attributed to external, specific and transient factors such as luck (Abramson et al., 1978). Such a depressive attributional style may lead to inactivity which may maintain psychological problems, particularly low mood, school failure and lack of adherence to medical regimes.

School-based learned helplessness usually does not appear until middle childhood and is more common in girls than boys. Fortunately, it is reversible if learning tasks are carefully matched to the child's ability level, if positive feedback is given for all successes and corrective feedback is given which attributes errors to effort rather than ability (Yeager & Dweck, 2012). The opposite to learned helplessness is learned optimism. This is underpinned by an attributional style where successes are attributed to internal, global, stable factors (such as ability or skill) and failures to external, specific and unstable factors such as chance. Learned optimism is associated with better adjustment (Forgeard & Seligman, 2012).

Aggressive parenting leads to the development of a hostile attributional bias, and this cognitive style may maintain aggressive behaviour. Where parents inconsistently and unpredictably use verbal or physical aggression to discipline children, these youngsters learn to expect unpredictable aggression (like that shown by their parents) from others, unless there are very clear indications to suggest otherwise (Crick & Dodge, 1994). That is, these youngsters attribute hostile intentions to others especially where their behaviour is ambiguous. This hostile attributional bias leads to provocative behaviour; for example, threatening others. This provocative behaviour elicits retaliation or rejection from others, which in turn confirms the young person's hostile attributional bias. In this way, a dysfunctional hostile attributional bias may maintain persistent problems in regulating aggression.

A variety of other cognitive factors (other than depressive attributional style or hostile attributional bias) which entail problematic interpretations of situations may maintain youngsters' problems (Friedberg & McClure, 2002; Fruggle et al., 2012; Stallard, 2005). For example, dysfunctional attitudes and distortions which highlight the threat potential of situations may maintain anxiety.

Coping strategies

Repeated use of dysfunctional coping strategies may maintain children's problems. Coping strategies are used to manage situations in which there is a perceived discrepancy between stressful demands and available resources for meeting these demands (Folkman et al., 2011; Frydenberg, 2008). Distinctions may be made between emotion-focused, problem-focused and avoidant coping strategies. Emotion-focused coping strategies are appropriate for managing affective states associated with uncontrollable stresses such as bereavement. For controllable stresses such as sitting examinations, problem-focused coping strategies, which aim to directly modify the source of stress, are more appropriate. In some situations where time-out from active coping is required to marshal personal resources before returning to active coping, avoidant coping may be appropriate. For all three coping styles, a distinction may be made between functional and dysfunctional strategies. Some commonly used functional and dysfunctional coping strategies are listed in Table 2.1.

Table 2.1 Functional and dysfunctional problem, emotion and avoidance focused coping strategies

Type	*Aim*	*Functional*	*Dysfunctional*
		• Accepting responsibility	• Taking little responsibility for

		for solving the problem	solving the problem
Problem focused	Problem solving	• Seeking accurate information	• Seeking inaccurate information
		• Seeking dependable advice and help	• Seeking questionable advice
		• Developing a realistic action plan	• Developing unrealistic plans
		• Following through on the plan	• Not following through on plans
		• Postponing competing activities	• Procrastination
		• Maintaining an optimistic view of one’s capacity to solve the problem	• Holding a pessimistic view of one’s capacity to solve the problem
Emotion focused	Mood regulation	• Making and maintaining socially supportive and empathic friendships	• Making and maintaining destructive relationships
		• Seeking meaningful spiritual support	• Seeking meaningless spiritual support
		• Catharsis and emotional processing	• Unproductive wishful thinking
		• Reframing and cognitive restructuring	• Long-term denial
		• Seeing the stress in a humorous way	• Taking the stress too seriously
		• Relaxation routines	• Drug and alcohol abuse
		• Physical exercise	• Aggression
Avoidance focused	Avoiding source of stress	• Temporarily mentally disengaging from the problem	• Mentally disengaging from the problem for the long term
		• Temporally engaging in distracting activities	• Long-term engagement in distracting activities
		• Temporally engaging in distracting relationships	• Long-term engagement in distracting relationships

Note: Based on Zeidner & Endler (1996).

Dysfunctional coping strategies may lead to short-term relief, but in the long term they tend to maintain rather than resolve stress-related problems. Dysfunctional problem-focused coping strategies include accepting little responsibility for solving the problem, seeking inaccurate or irrelevant information, seeking support and advice from inappropriate sources (such as fortune tellers), developing unrealistic plans such as winning the lottery, not following through on problem-solving plans, procrastination and holding a pessimistic view of one's capacity to solve the problem. Dysfunctional emotion-focused coping strategies include making destructive rather than supportive relationships, seeking spiritual support which is not personally meaningful, engaging in long-term denial rather than catharsis, engaging in wishful thinking rather than constructive re-framing, taking oneself too seriously rather than looking at stresses in a humorous light, abusing drugs and alcohol rather than using relaxation routines and engaging in aggression rather than physical exercise. Psychologically disengaging from a stressful situation and the judicious short-term involvement in distracting activities and relationships are functional avoidant coping strategies. Avoidant coping strategies become dysfunctional when they are used as a long-term way of managing stress.

Defence mechanisms

Children's problems may be maintained by repeated use of immature defence mechanisms. Unlike conscious coping strategies (discussed earlier), defence mechanisms operate unconsciously and are used to reduce anxiety associated with conflict (Conte & Plutchik, 1995; Cramer, 2006). Conflict usually arises when a person wishes to pursue one course of action but fears the consequences of doing so. These consequences may be negative external events such as the angry reactions of parents or internal events such as the experience of guilt. For example, a youngster who is angry with his mother may wish to express his anger directly but fears the mother's retaliation or the personal experience of guilt. If he uses the primitive defence mechanism of passive aggression, he may regulate the negative emotions associated with this conflict by agreeing to do certain household chores but doing them slowly or inefficiently. If he uses a neurotic defence mechanism, he may deal with the conflict by displacing his anger onto siblings and fighting with them. If he uses a mature defence mechanism like sublimation, he may play football after doing chores to physically release the tension associated with the negative emotional state.

A defensive functioning scale is presented in Table 2.2 (American Psychiatric Association, 2000; Perry, 1990). On this scale, less adaptive or immature defences have greater potential to maintain psychological problems than more mature defences. At the action level, conflict-related negative affect is regulated by expressing it through behaviour; for example, aggressive or promiscuous sexual behaviour or social withdrawal. Where major image distortion is used to regulate negative affect associated with conflict, splitting is the prototypical defence. Here negative affect is regulated by viewing some people as 'all bad' and directing all unacceptable aggressive impulses towards them. Concurrently a subset of people are viewed as 'all good' and revered for this. Traditionally these defences are referred to as borderline since they occur in borderline personality disorder. At the next level, negative affect associated with conflict between unacceptable impulses and pro-social wishes is regulated by disavowal though denial, projection or rationalization. Minor image distortion of the self or others, through devaluation, idealization or omnipotence, occurs at the next level. Defences at this level regulate self-esteem by enhancing or exaggerating positive aspects of the image of the self and one's allies and exaggerating negative attributes of others. Traditionally these defences are referred to as narcissistic since they occur in narcissistic personality disorder. At the next level – the level of mental inhibitions or compromise formation – defences regulate negative affect by keeping unacceptable wishes out of consciousness. Of these, repression is the prototypical defence. Other defences at this level include displacement, dissociation, intellectualization, isolation of affect, reaction formation and undoing. At the adaptive level, defences regulate negative affect by allowing a balance to be achieved between unacceptable impulses and pro-social wishes or between demands and coping resources. This balance maximizes the possibilities of gratification. Also, while the balance is being achieved, the conflicting impulses and wishes, demands and personal resources and related emotions are all held in consciousness. Anticipation, affiliation, altruism, humour, self-assertion, self-observation, sublimation and suppression are adaptive defences. These adaptive defences may be viewed as protective factors, rather than problem maintaining factors.

Table 2.2 Defence mechanisms at different levels of maturity

Level	*Features of defences*	*Defence*	*The individual regulates emotional discomfort associated with conflicting wishes and impulses or external stress by…*
High adaptive level	Promote an optimal balance among unacceptable impulses and pro-social wishes to maximize gratification and permit conscious awareness of conflicting impulses	**Anticipation**	considering emotional reactions and consequences of these before the conflict or stress occurs and exploring the pros and cons of various solutions to these

and wishes		problematic emotional states
	Affiliation	seeking social support from others, sharing problems with them without making them responsible for them or for relieving the distress they entail
	Altruism	dedication to meeting the needs of others and receiving gratification from this (without excessive self-sacrificing)
	Humour	reframing the situation which gives rise to conflict or stress in an ironic or amusing way
	Self-assertion	expressing conflict-related thoughts or feelings in a direct yet non-coercive way
	Self-observation	monitoring how situations lead to conflict or stress and using this new understanding to modify negative affect
	Sublimation	channelling negative emotions arising from conflict or stress into socially

			acceptable activities such as work or sports
		Suppression	intentionally avoiding thinking about conflict or stress
Mental inhibitions: compromise formation level	Keep unacceptable impulses out of awareness	**Displacement**	transferring negative feelings about one person onto another, less threatening person
		Dissociation	experiencing a breakdown in the integrated functions of consciousness, memory, perception or motor behaviour
		Intellectualization	the excessive use of abstract thinking or generalizations to minimize disturbing feelings arising from conflict
		Isolation of affect	losing touch with the feelings associated with descriptive details of the conflict, trauma or stress
		Reaction formation	substituting acceptable behaviours, thoughts or feelings which are the opposite of unacceptable or unwanted

			behaviours, thoughts or feelings that arise from a conflict
		Repression	expelling unwanted thoughts, emotions or wishes from awareness
		Undoing	using ritualistic or magical words or behaviour to symbolically negate or make amends for unacceptable impulses
Minor image distorting level	Distort image of self and others to regulate self-esteem	**Devaluation**	attributing exaggerated negative characteristic to the self or others
		Idealization	attributing exaggerated positive characteristics to the others
		Omnipotence	attributing exaggerated positive characteristics or special abilities and powers to the self which makes oneself superior to others
		Denial	refusing to acknowledge the painful features of the situation or experiences which are apparent to

			others
Disavowal level	Keep unacceptable impulses and ideas out of consciousness with or without misattribution of these to external causes	**Projection**	attributing to others one's own unacceptable thoughts, feelings and wishes
		Rationalization	providing an elaborate self-serving or self-justifying explanation to conceal unacceptable thoughts, actions or impulses
Major image distorting level	Gross distortion or misattribution of aspects of the self or others	**Autistic fantasy**	engaging in excessive daydreaming or wishful thinking as a substitute for using problem solving or social support to deal with emotional distress
		Projective identification	attributing to others one's own unacceptable aggressive impulses. Then inducing others to feel these by reacting aggressively to them. Then using the other person's aggressive reactions as justification for acting out unacceptable aggressive

			impulses.
		Splitting of self-image or image of others	failing to integrate the positive and negative qualities of self and others and viewing self and others as either all good or all bad
Action level	Action or withdrawal from action	**Acting out**	acting unacceptably to give expression to the experience of emotional distress associated with conflict or stress
		Apathetic withdrawal	not engaging with others
		Help-rejecting complaining	making repeated requests for help and then rejecting help when offered as a way of expressing unacceptable aggressive impulses
		Passive aggression	unassertively expressing unacceptable aggression towards others in authority by overtly complying with their wishes while covertly resisting these
	Failure of defences to	**Delusional projection**	attributing to others one's own unacceptable thoughts, feelings and wishes to an

Level of defensive dysregulation	Failure of defences to regulate conflict-related feelings leading to a breakdown in reality testing		extreme degree
		Psychotic denial	refusing to acknowledge the painful features of the situation or experiences which are apparent to others to an extreme degree
		Psychotic distortion	viewing reality in an extremely distorted way

Note: Adapted from Perry (1990) and DSM-IV Defensive Functioning Scale (American Psychiatric Association, 2000, pp. 807–813).

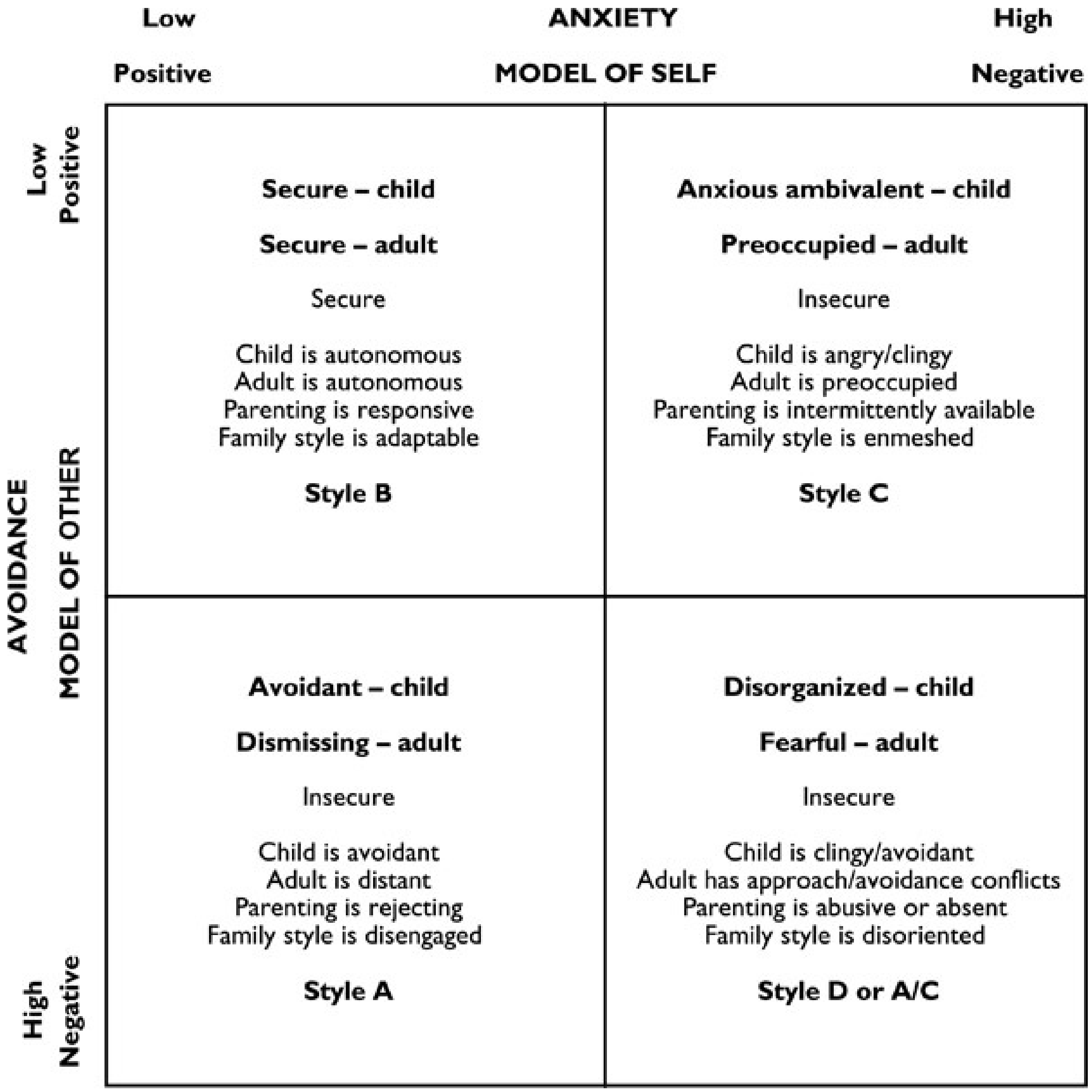
Contextual predisposing factors

While personal characteristics may predispose youngsters to developing psychological problems and maintain them once they emerge, a variety of contextual factors also render youngsters vulnerable to developing psychological difficulties and play a significant role in perpetuating such problems. These include specific features of the parent–child relationship, exposure to various ongoing parental and family problems, and specific stresses within the social environment including the school and peer group (Jenkins, 2008; Myers, 2011a; Sandberg & Rutter, 2008; Stein et al., 2008).

Parent–child factors in early life

The quality of parent–child attachment, the degree to which parents offer their children age-appropriate intellectual stimulation, and the way in which control and warmth are combined to form a parenting style have been shown to have highly significant effects on children's later psychological adjustment (Bradley et al., 2003; Cassidy & Shaver, 2008; Darling & Steinberg, 1993). Insecure attachment, lack of intellectual stimulation and non-optimal parenting styles are predisposing factors for psychological problems.

Attachment. Children who develop secure attachments to their caregivers develop emotional competence. Children who fail to do so may be at risk for developing psychological problems. Children develop secure emotional attachments if their parents are attuned to their needs for safety, security and physical care and if their parents are responsive to children's signals that they require their needs to be met. When this occurs, children learn that their parents are a secure base from which they can explore the world. John Bowlby (1988), who developed attachment theory, argued that attachment behaviour, which is genetically programmed and essential for survival of the species, is elicited in children between 6 months and 3 years when faced with danger. In such instances children seek proximity with their caretakers. Once they have been comforted by their parents, they return to the activity of exploring the immediate environment around their caretaker. The cycle repeats each time the child perceives a threat and their attachment needs for satisfaction, safety and security are activated. Over multiple repetitions, the child builds an internal working model of attachment relationships based on the way these episodes are managed by the caregiver in response to the child's needs for proximity, comfort and security. Internal working models are cognitive relationship maps based on early attachment experiences which serve as a template for the development of later intimate relationships. Internal working models allow people to make predictions about how the self and significant others will behave within relationships. In their ground-breaking text, *Patterns of Attachment*, Mary Ainsworth and colleagues (1978) described three patterns of mother–infant interaction following a brief episode of experimentally contrived separation and further empirical research with mothers and children led to the identification of a fourth category (Cassidy & Shaver, 2008). A summary of these four attachment styles is given in Figure 2.2. Later work on intimate relationships in adulthood confirms that these four relational styles show continuity over the lifecycle. Significant adult relationships and patterns of family organization may be classified into four equivalent categories which are also outlined in Figure 2.2.



ANXIETY

MODEL OF SELF

AVOIDANCE

MODEL OF OTHER

	Low Positive	High Negative
Low Positive	**Secure – child** **Secure – adult** Secure Child is autonomous Adult is autonomous Parenting is responsive Family style is adaptable **Style B**	**Anxious ambivalent – child** **Preoccupied – adult** Insecure Child is angry/clingy Adult is preoccupied Parenting is intermittently available Family style is enmeshed **Style C**
High Negative	**Avoidant – child** **Dismissing – adult** Insecure Child is avoidant Adult is distant Parenting is rejecting Family style is disengaged **Style A**	**Disorganized – child** **Fearful – adult** Insecure Child is clingy/avoidant Adult has approach/avoidance conflicts Parenting is abusive or absent Family style is disoriented **Style D or A/C**

Figure 2.2 Attachment styles

Note: Based on Cassidy & Shaver (2008) and from Carr (2012b, p. 174).

Securely attached children react to their parents as if they were a secure base from which to explore the world. Parents in such relationships are attuned and responsive to the children's or partner's needs. While a secure attachment style is associated with autonomy, the other three attachment styles are associated with a sense of insecurity. Anxiously attached children seek contact with their parents following separation but are unable to derive comfort from it. They cling and cry or have tantrums. Avoidantly attached children avoid contact with their parents after separation. They sulk. Children with a disorganized attachment style following separation show aspects of both anxious and avoidant patterns. Disorganized attachment is a common correlate of child abuse and neglect and early parental absence, loss or bereavement.

Intellectual stimulation. The level of sensorimotor and intellectual stimulation that parents provide for infants is critical for their intellectual development. A series of studies by Bradley and Caldwell has shown that the variety of play materials in the home and the number of opportunities used by parents to intellectually stimulate their children are associated with current intellectual level and future IQ (Bradley et al., 2003). Caldwell and Bradley used the Home Observation for Measurement of the Environment (HOME) rating scale in their studies (Caldwell & Bradley, 2003). The scale may be completed within a 1-hour home visit and measures among other factors maternal responsivity to the child, punitiveness, availability of play materials and opportunities for stimulation. Versions are currently available for infants, toddlers, children and young adolescents.

Parenting styles. Reviews of the extensive literature on parenting suggest that by combining the two orthogonal dimensions of warmth and control, four parenting styles may be identified: authoritative, authoritarian, permissive and neglecting (Darling & Steinberg, 1993). These four styles are presented in Figure 2.3. Each of these is associated with particular developmental outcomes. *Authoritative* parents who adopt a warm child-centred approach coupled with a moderate degree of control which allows children to take age-appropriate responsibility provide a context which is maximally beneficial for children's development as autonomous confident individuals (Larzelere et al., 2013). Children of parents who use an authoritative style learn that conflicts are most effectively managed by taking the other person's viewpoint into account within the context of an amicable negotiation. This set of skills is conducive to efficient joint problem solving and the development of good peer relationships and consequently the development of a good social support network. Children of *authoritarian* parents who are warm but controlling tend to develop into shy adults who are reluctant to take initiative. The parents' disciplinary style teaches them that unquestioning obedience is the best way to manage interpersonal differences and to solve problems. Children of *permissive* parents who are warm but lax in discipline lack the competence in later life to follow through on plans and show poor impulse control. Children who have been *neglected* and experienced little warmth from their parents coupled with inconsistent supervision develop adjustment problems.

There is a growing consensus that research on the effects of corporal punishment, which is often one element of an authoritarian or neglecting parenting style, shows that it has negative long-term effects. However, conclusions about the extent of these effects vary depending on the research methods used. In a meta-analysis of 45 longitudinal studies, Ferguson (2013) found that spanking or corporal punishment when children were on average 6 years of age has a small but statistically significant impact on externalizing and internalizing behaviour problems and cognitive performance 6.5 years later. In contrast, in a wide-ranging review of both longitudinal and cross-sectional studies, Straus et al. (2014) found that spanking has a strong association with anti-social behaviour in adolescence and adulthood.

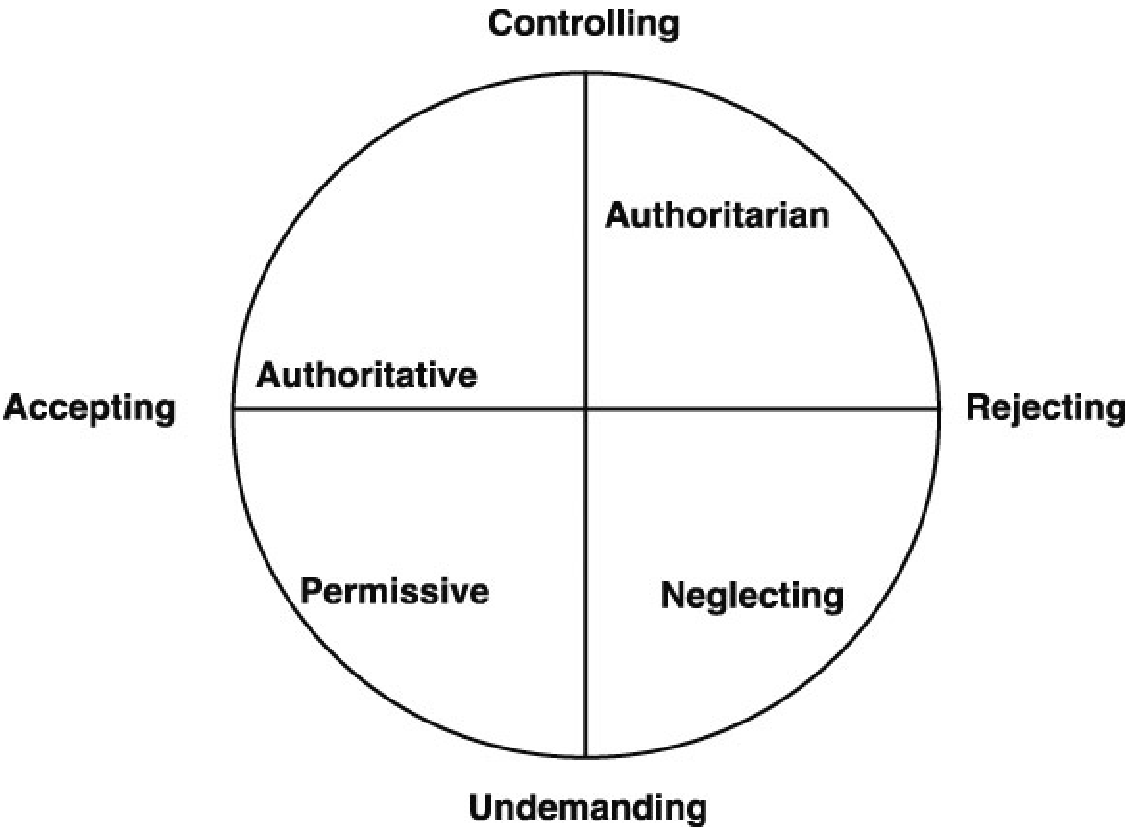


Figure 2.3 Patterns of parenting

Exposure to family problems in early life

Children whose parents have significant personal adjustment problems, who grow up in families characterized by disorganization and marital discord, and in which there are deviant siblings are at risk for developing psychological difficulties (Davies & Cummings, 2006; Jenkins, 2008; Lamb, 2012; Stein et al., 2008).

Parental problems. Parental adjustment problems such as depression, alcohol misuse or criminality may render children vulnerable to psychological difficulties for two main (non-genetic) reasons (McLaughlin et al., 2012; Stein et al., 2008). First, such problems may compromise parents' capacity to offer their children a secure attachment relationship, adequate intellectual stimulation and an authoritative parenting environment. For example, depressed mothers find it difficult to interpret their infant's distress signals and to respond appropriately and quickly so as to foster secure attachment. Fathers with alcohol problems often play a very peripheral role in family life, making little input to the child's parenting environment. The second reason why parental adjustment difficulties may predispose youngsters to developing psychological problems is because through a process of modelling and inadvertent shaping and reinforcement, such children may learn belief systems, behavioural patterns, defence mechanisms and coping strategies similar to those of their parents.

Marital discord. The presence of children within a family is associated with decreased marital satisfaction (Dillon & Beechler, 2010). From Figure 2.4 it may be seen that marital satisfaction varies over the course of the family lifecycle, with high levels of satisfaction occurring prior to the birth of children and after they have left home and lowest levels of satisfaction being associated with the period where families contain school-going children. This pattern occurs because while children bring parents joy and fulfilment, the financial and time costs and role conflicts associated with the childrearing process compromise marital satisfaction. Having said that, there is variability in couples' responses to childrearing which the pattern presented in Figure 2.4 masks, and longitudinal rather than cross-sectional studies have shown that some couples do not show the pattern in Figure 2.4 (Anderson et al., 2010). In families with strong social, psychological and economic resources and supports, children may have a less detrimental effect on marital satisfaction.

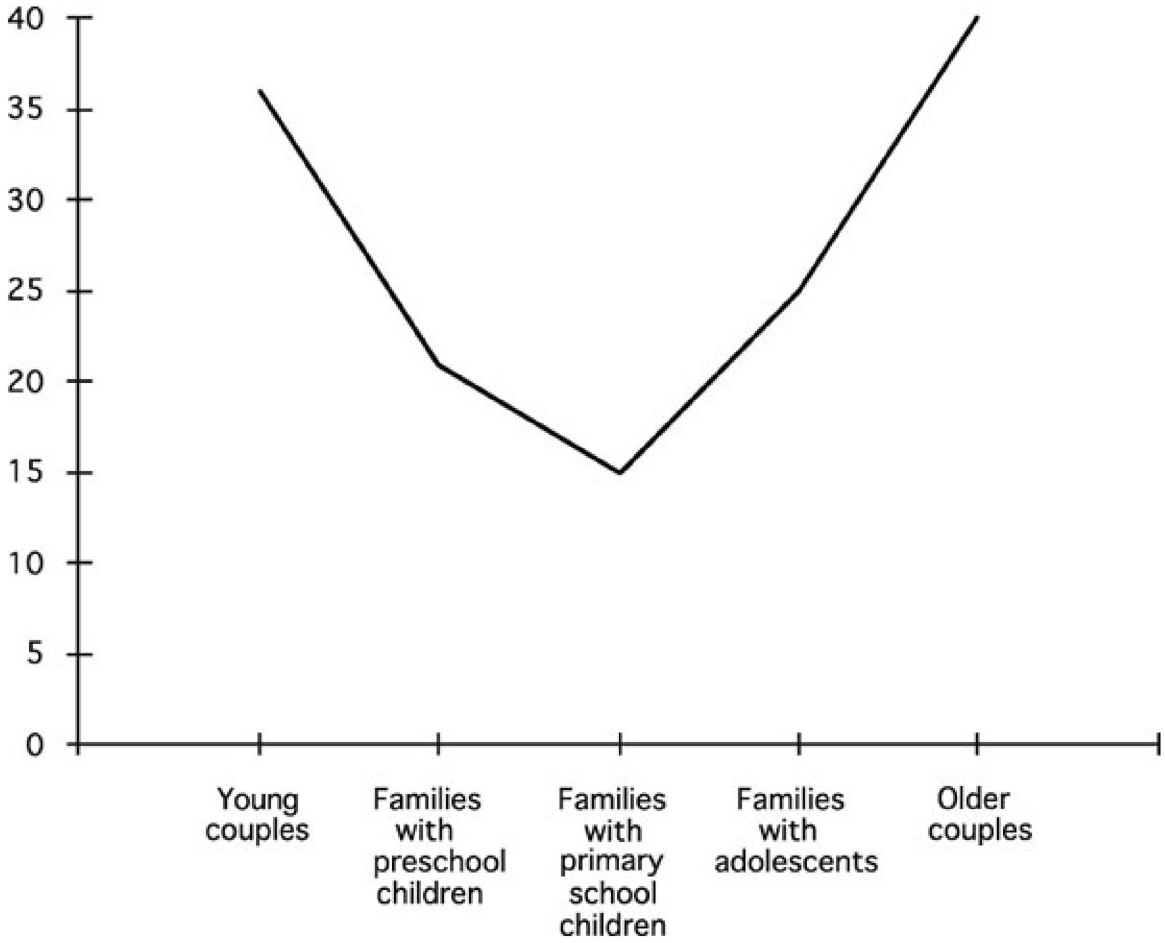


Figure 2.4 Marital satisfaction across the lifespan

Note: Adapted from Rollins & Feldman (1970).

In families characterized by marital discord children often develop psychological problems (Cummings & Davies, 2010). Exposure to severe marital discord, aggressive conflicts and violence predisposes children to developing psychological problems for a number of reasons. First, it threatens their sense of emotional security. Children may feel that their parents will not be able to resolve their conflicts and jointly meet their needs for safety, care, control and support. Second, children may become triangulated and experience pressure to side with one parent against another. This may be associated with a fear of losing the support of or being punished by the offended parent. Third, they may believe that they were responsible for the parental conflict and so are responsible for preventing or resolving the parents' difficulties. Fourth, they may become frightened that the aggression which their parents express towards each other will become directed at them and they will be hurt. Finally, marital discord may prevent parents from working together co-operatively to provide their children with an optimal parenting environment and a context for developing and maintaining secure attachment.

Parental co-operation is particularly important in cases where separation or divorce has occurred (Amato et al., 2011; Hetherington & Kelly, 2002). Two years following divorce 20% of children show clinically significant emotional and behavioural problems. Continued parental acrimony and detouring parental conflict through children is one of the most significant factors contributing to this sub-group's adjustment problems. Co-operative parenting, on the other hand, is associated with good post-divorce adjustment. Adjustment to divorce is discussed in Chapter 23.

Family disorganization. A chaotic family environment characterized by problematic adult–child and adult–adult relationships, limited communication and problem-solving skills, inconsistent rules, unclear roles and the absence of regular routines for meeting children's needs for care, control and intellectual stimulation may predispose youngsters to developing psychological problems (Lamb, 2012). Often families with these attributes have multiple problems and progress from one crisis to the next. Such family environments probably predispose youngsters to developing psychological problems because the unpredictability associated with such environments is highly stressful. Family disorganization is far more predictive of child adjustment than factors such as the number or gender of parents or caregivers within the child's household and the biological ties between children and caregivers. The majority of children in well-organized families cared for by single parents, gay same-gender parents or adoptive parents are not predisposed to developing psychological problems (Lamb, 2012).

Deviant siblings. Having older brothers or sisters who have conduct problems may predispose youngsters to developing conduct problems themselves (Defoe et al., 2013). Deviant older siblings (like deviant parents) may act as inappropriate role models and also shape and reinforce conduct problems in their younger brothers and sisters.

Stresses in early life

In the absence of adequate supports, major threats to the child's needs for safety, care, control or intellectual stimulation may predispose the child to developing psychological problems in later life. Chief among these early life stresses are bereavements, parent–child separations, child abuse, social disadvantage and institutional upbringing (Jenkins, 2008; Kessler et al., 2010; Myers, 2011a; van IJzendoorn et al., 2011). All of these early life stresses disrupt the child's relationship with their attachment figures.

Separation and bereavement. Significant early loss experiences such as separations from a parent or parental death may place children at risk for developing psychological problems later in life (Kessler et al., 2010).

Child abuse. Physical, sexual and emotional abuse in early childhood may make youngsters vulnerable to developing later emotional, conduct, interpersonal and educational problems (Myers, 2011a). In the interpersonal domain, children who have been abused are at risk for becoming involved in relationships in which they are repeatedly abused. They also are at risk for abusing others.

Social disadvantage. Chronic social disadvantage and poverty in early life is a risk factor for later psychological problems (Jenkins, 2008; Lamb, 2012). A variety of mechanisms may be involved. An inadequate physical environment and inadequate nutrition may adversely affect children's health, and this in turn may adversely affect children's psychological well-being. In addition, parents coping with the multiple stresses associated with social disadvantage may have few personal resources available for meeting their children's needs for safety, care, control and intellectual stimulation.

Institutional upbringing. Institutional upbringing predisposes children to developing psychological problems, and the severity of these problems is dependent upon the duration of institutional living and the degree of deprivation experienced (van IJzendoorn et al., 2011). Children brought up in institutions may show delays in physical growth, cognitive and language development, and social and emotional development. They may also show a range of behavioural problems including, in more severe cases, disinhibited attachment, autism-like features and hyperactivity.

Contextual maintaining factors

Once children develop psychological problems, these difficulties may persist because of the way in which members of the child's social network respond to them. Children's problems may be maintained by patterns of interaction within the family, by ongoing parental adjustment problems, by factors within the wider culture and social network including the school and community, and by the way in which the family engage with treatment agencies (Imber-Black, 1991; Jenkins, 2008; Lamb, 2012; Stein et al., 2008).

Family system factors

Within the family, parents and siblings may maintain psychological difficulties by engaging in problem-maintaining interaction patterns with the child who has psychological problems. There are many such interaction patterns, but a number deserve particular mention. These include interaction patterns characterized by inadvertent reinforcement, insecure attachment, coercion, over-involvement, disengagement, inconsistent parental discipline, confused communication and triangulation (Carr, 2012). Problem maintaining interaction patterns are more common in family systems characterized by chaotic organization, marital discord and father absence.

Inadvertent reinforcement. Children's psychological problems may be maintained if parents or siblings continuously or intermittently interact with the child when it occurs in ways that entail some pay-off or reinforcement for the child (Scott & Yule, 2008). This pay-off may be as simple as offering attention. Typically parents and siblings do not intend to reinforce problematic behaviour, but nevertheless do so inadvertently by, for example, repeatedly inquiring about a child's mood or commenting on their negative conduct. Furthermore, in many instances, children are unaware that their problem behaviour is being maintained by inadvertent parental reinforcement. Inadvertent reinforcement is a particularly powerful problem-maintaining factor when it is offered intermittently rather than continuously.

Insecure attachment. Where parents are not attuned to their children's needs and have difficulty meeting these needs in a timely and responsive way, children may not experience their parents as a secure base from which to explore the world (Cassidy & Shaver, 2008). That is, insecure attachment may develop, and this may maintain problem behaviours. In situations where separation is anticipated or has recently occurred, children may show one of the three insecure attachment styles diagrammed in Figure 2.2. They may engage in a variety of problematic proximity-seeking behaviours such as crying and clinging to their parents. They may engage in avoidant behaviours such as refusing to co-operate with their parents or sulking. Or they may alternate between avoidant and proximity-seeking behaviour.

Coercive interaction. Coercive interaction patterns, which involve mutual negative reinforcement, are central to the maintenance of children's conduct difficulties (Patterson, 1982). Children with conduct problems may become involved in escalating patterns of negative interaction with their parents. Within such patterns the child responds to escalating parental directives, criticism and reprimands with increasingly aggressive or destructive behaviour. Eventually, on some occasions, parents withdraw from these exchanges by, for example, leaving the room or psychologically withdrawing and indicating that they cannot cope with the situation. This withdrawal leads both the child and the parent to experience relief. This experience of relief negatively reinforces the behaviour of both the child and the parent that immediately preceded it. For the child, a high level of aggressive and destructive behaviour is reinforced because it stopped the parent's escalating critical demands. For the parent, withdrawal from the child is reinforced because it provided an escape from the child's escalating aggression and oppositional behaviour. Coercive interaction patterns may evolve within the context of a broader inconsistent parenting pattern, where on some occasions parents are extremely authoritarian, showing high level of control and a low level of warmth, and on other occasions are negligent, showing a low level of control and little warmth.

Over-involvement. Parental criticism and parental emotional over-involvement are the two main components that make up the construct of expressed emotion (EE). EE was originally shown to be associated with relapse in schizophrenia and subsequently has been found to influence the course of childhood psychological disorders (Hooley, 2007). Both the criticism and over-involvement components of EE probably reflect aspects of parents' attempts to cope with their children's difficult behaviour. Parents who construe their children's problems as within their control, and therefore as acts of disobedience, may respond to their children with criticism. In contrast, parents may respond to their children's problems by adopting an over-involved style if they construe these problems to be outside of the child's control, and due to factors such as illness or stress. Children may interpret parental over-involvement as a sign that their parents believe them to have particularly serious problems, and this belief may maintain their problems. In addition, over-involvement may be associated with parents inadvertently reinforcing children's problem behaviours. Over-involvement may also reflect a form of permissive parenting characterized by a high level of warmth and intrusiveness and a low level of control.

Disengagement. Psychological difficulties may be maintained by infrequent parent–child interaction, or neglect (Farrell-Erickson & Egeland, 2011). In some infants and young children, delays in language and cognitive development may be maintained by low-frequency, disengaged parent–child interaction patterns. During middle childhood and adolescence, disengaged parent–child relationships may maintain conduct problems. With a low level of supervision, youngsters are free to become involved with deviant peer groups and engage in delinquency. Disengaged parent–child relationships at any age may maintain a low sense of self-esteem since low rates of parent–child interaction may be interpreted by children as indicating that they are not valued by their parents.

Inconsistent discipline. Where the rules governing acceptable and unacceptable behaviour and the consequences associated with adherence to rules or rule violations are either unclear, or clear but inconsistently enforced, problem maintaining parent–child interaction patterns may emerge (Murrihy et al., 2010). Children may refuse to comply with parental requests because it is unclear what the consequences for compliance or defiance will be. In such situations, the child finds it difficult to internalize the rules for acceptable behaviour and so may continue to show problem behaviours.

Confused communication patterns. Children's psychological problems may be maintained by confused communication patterns (Carr, 2012). Confused communication patterns may be characterized by problematic parental listening or by giving unclear messages. Low self-esteem and related difficulties may be maintained by parent–child interaction patterns in which parents are unable to listen to their children and give them clear and direct feedback that their position has been heard and understood. A wide variety of conduct and emotional problems may be maintained by parent–child communication patterns in which parents and children fail to communicate directly with each other. For example, a parent who wants a child to tell the truth, rather than instructing the child directly, may say 'Sometimes I wish people would tell the truth.' This type of indirect communication is far less effective than a direct communication such as 'If we are going to trust each other, then we need to tell each other the truth. Now, please tell me what happened?' Many psychological problems may be maintained by parent–child communication patterns in which the parent's message to the child is unclear. For example, a parent may give a child a vague message, two conflicting verbal messages or a clear verbal message which conflicts with the non-verbal message. With all of these unclear messages, their negative impact on the child may be exacerbated if the child is incapable of or prevented from either requesting clarification or escaping from the ambiguous situation. From the child's perspective, this type of situation is very stressful when the conflicting messages are commands and disobedience will lead to punishment or loss of parental approval. This is because the child knows that if she carries out either instruction she will be disobeying the parent and there is no way of escaping or clarifying which is the right instruction to follow. This type of communication was first observed in families of people with schizophrenia, although subsequent research showed that it does not play an aetiological role in the psychoses (Carr, 2012). However, clinical experience shows that this type of double-binding communication is quite a common maintaining factor in conduct and emotional disorders.

Triangulation. Children's psychological difficulties may be maintained by triangulation. These are three-person interactional patterns, in which children become caught between conflicting parents (Carr, 2012; Cummings & Davies, 2010). Triangulation patterns may be overt or covert. With overt triangulation, parents openly criticize each other and ask their children to take sides in the marital conflict, tell them about the other parent's negative behaviour or convey negative messages to the other parent. Overt triangulation commonly occurs in families where there is a high level of conflict between parents. This type of triangulation maintains conduct and emotional problems because it involves inconsistent parenting, inadvertent or intentional reinforcement of problem behaviours, and because it threatens children's need for emotional security. This in turn may lead to a range of negative mood states including anxiety, anger and depression. Covert triangulation is more subtle, and typically occurs in families where parents are conflict avoidant. They avoid talking openly about how to address issues within their own relationship or the management of their children. A common covert triangulation pattern involves a secretive mother–child coalition to which the father is peripheral. With separation anxiety or conduct problems, the mother may inadvertently reinforce the child's problem behaviour and either intentionally or inadvertently undermines the father's attempt to contribute to the resolution of the child's difficulties.

Father absence. Father absence is associated in particular with conduct disorders (Cabrera & Tamis-LeMonda, 2013). This may be because there are fewer parenting resources in families in which the father is absent and also because mothers and absent fathers may involve their children in problem-maintaining triangulation patterns discussed in the previous paragraph. The greater the quantity and quality of time the father spends with children, the better the overall adjustment of children in the long term. Children from families with high levels of father involvement show greater instrumental and interpersonal competence and higher self-esteem. Research in family therapy and parent training has shown that father involvement in therapy is an important predictor of successful outcome (Carr, 2012; Panter-Bric et al., 2014).

Parental factors

Certain parental characteristics make it more likely that they will engage in problem-maintaining interaction patterns with their children (Reder et al., 2000, 2004; Reder & Lucey, 1995; Stein et al., 2008). Where parents have a similar problem to their children they may act as role models and so maintain their youngsters' behaviour in this way. Where parents have other psychological problems or have been involved in criminality, their personal resources for coping with the demands of parenting may be compromised or they may be unavailable due to hospitalization or imprisonment. Where parents have inaccurate knowledge of child development, they may misinterpret children's problem behaviour and engage in problem-maintaining interaction patterns. For example, a child crying in distress may be interpreted as intentionally punishing the parents and they may respond with criticism. Unsocialized aggression may be misinterpreted as a sign of depression and lead the parents to respond with over-involvement. Parents who have not experienced secure attachment to their own primary caregivers may lack internal working models for secure attachments and so be unable to offer their children this type of relationship. As a result, patterns of interaction based on insecure attachment may evolve and maintain children's psychological difficulties. Where parents lack the beliefs and skills necessary for emotional self-regulation, they may find it difficult to provide an authoritative parenting environment and find that their treatment of their children is fuelled by their immediate emotional reactions rather than planned responses. Thus low self-esteem, an external locus of control, low self-efficacy, a problematic attributional style, cognitive distortions, immature defences and dysfunctional coping strategies are parental characteristics that may underpin parents' involvement in problem-maintaining interaction patterns.

Social network factors

Certain features of children's social environments may maintain their psychological problems. These include high levels of stress and low levels of social support, inadequate school placements, deviant peer-group membership, and community-based problems including social disadvantage and challenges associated with ethnic minority group membership (Bronfenbrenner & Morris, 2006; Jenkins, 2008; Lamb, 2012; Nikapota & Rutter, 2008; Rubin et al., 2009; Rutter & Maughan, 2002; Ungar et al., 2013).

High stress. Major stressful life events such as parental unemployment, serious illness or bereavement, or an accumulation of minor stressful events such as transport problems or quarrels are examples of stresses that erode parents' and children's coping resources and promote problem-maintaining patterns of family interaction (Aldwin, 2011; Jenkins, 2008). Accumulations of these types of stresses are more common where families are socially disadvantaged or isolated and lack the psychosocial and economic resources to address many of these challenges.

Parents' work contexts may entail both stresses and supports which influence the degree to which they meet their children's needs. Parents who work are less likely than those who do not to develop mental health problems such as depression (Kahn, 2013). Along with meeting financial needs, work may meet parents' needs for social support, a purpose in life, achievement and status. However, work may also be a source of stress (Barling et al., 2004). Within the work context stress has been found to be consistently associated with jobs where there is a low level of control over responsibilities, resources and the working environment. Both excessive and minimal work loads are stressful with the latter leading to boredom and the former to burnout. Stress is also associated with work situations where an individual's responsibilities are unclear or ambiguous, where there is considerable time pressure and where work-related tasks are overly complex or extremely monotonous. Physically uncomfortable work environments and work situations where supportive relationships with co-workers, management and subordinates are absent are also stressful. For women, particularly, role strain associated with homemaking and working outside the home may be a significant source of stress. Work transitions which involve geographic relocation are particularly stressful if they involve the loss of the family's social support network. Promotion beyond the limits of a person's abilities may also prove stressful as may the lack of promotion if such advancement is expected.

Low social support. Children's psychological problems may be maintained by low levels of social support. In socially isolated families that have poorly developed social support networks, with little positive contact with the extended family and few friends, parents and children are more likely to become involved in problem-maintaining interaction patterns (Chu et al., 2010; Deater-Deckard, 2013; Jenkins, 2008). For parents and children, social support increases a personal sense of well-being and provides a forum for receiving advice on managing problems. Social support facilitates endocrine, cardiovascular and immune system functioning and prevents illness (Uchino, 2006). In the absence of social support, parents and children have fewer personal resources for coping with problems and so are more likely to drift into interaction patterns that maintain children's problems.

Unsuitable educational placement. Unsupportive, poorly resourced educational placements with inadequate staffing and staff training for dealing with children with psychological problems may maintain children's psychological problems (Komro et al., 2011; Rutter & Maughan, 2002). Children with learning difficulties may fall further behind in their attainments due to the lack of appropriate remedial tuition. As a result of school-failure experiences they may develop negative self-evaluative beliefs. They may also become involved in problem-maintaining interaction patterns with teachers and fellow pupils.

Deviant peer-group membership. Deviant peer-group membership may maintain children's problems through peer contagion processes (Dishion, 2013). Where youngsters with conduct or substance abuse problems become involved with deviant peers, interactions with these peers may maintain youngsters' problem behaviours through modelling and reinforcement.

Community problems. Children's psychological difficulties may be maintained by a variety of community problems including social disadvantage, having few employment opportunities, living in a high-crime area, being exposed to community violence, and encountering racism or social exclusion associated with ethnic-minority group membership (Jenkins, 2008; Masten, 2011, 2013; Nikapota & Rutter, 2008; Ungar et al., 2013).

Problem-maintaining treatment system factors

Children's psychological problems may be maintained by the way in which they and their families engage with treatment agencies and professionals within the health care, educational, juvenile justice and other relevant service-providing systems. Serious psychological adjustment problems are more likely to persist if they are denied by the child or significant family members or if family members are ambivalent about resolving the child's problems. This is a common problem where the referral is initiated by someone outside the family such as a teacher, a social worker or a probation officer. Denial of the problem or ambivalence about engaging in treatment leads children and families to develop problem-maintaining rather than problem-resolving interaction patterns. Problems are more likely to persist in situations where families have not successfully coped with similar problems before. In these cases parents and children have no grounds on which to believe that they have the skills or resources to solve their problems. Nor do they have the experience of making and maintaining a good working alliance with a mental health team. Children's difficulties are more likely to persistent in situations where the child and parents reject the treatment team's formulation of the problem and the treatment plan based on the formulation. A lack of co-ordination among professionals on a multi-disciplinary treatment team or in an inter-agency network may also maintain a child's problems, especially where different professionals have conflicting formulations and treatment plans. Families from ethnic minorities may have difficulty engaging with services which are insensitive to the needs, expectations, norms, beliefs and values of their ethnic minority culture. In such circumstances there may be difficulty in establishing a therapeutic alliance and clients may drop out of treatment. Thus, cultural insensitivity of agencies providing services to ethnic-minority families may maintain children's problems.

Precipitating factors

Some psychological problems, such as intellectual disability, are present at birth. Others, such as primary enuresis, reflect a delay in development. Here the child fails to develop a particular competency at the appropriate age. In some instances, the onset of psychological difficulties is quite gradual. For example, some youngsters with eating disorders become gradually anorexic over a period of months. In other instances, the onset of psychological problems is very sudden and in response to a clear stressor; for example, in the case of post-traumatic stress disorder. Despite these variations, it is conceptually useful to distinguish precipitating factors from predisposing and maintaining factors, while recognizing that precipitating factors may not be identifiable in all instances. Children's psychological problems may be precipitated by acute life stresses such as illness or injury, child abuse, bullying and births or bereavements (Sandberg & Rutter, 2008). They may also be precipitated by lifecycle transitions such as entry into adolescence, changing schools, loss of peer friendships and parental separation or divorce. Family stresses such as parental unemployment, moving house or financial difficulties may also precipitate the onset of psychological problems. Once an episode of a problem has been precipitated and then resolved, there is considerable variability in whether youngsters become 'sensitized' or 'steeled' to the next build-up of stressful life events (Goldstein & Brooks, 2013). Some youngsters become more resilient and are better able to cope with future stresses having successfully resolved a problem once. Others are rendered more vulnerable and require less stress to develop future problems.

Protective factors

The presence of personal and contextual protective factors that have been found to characterize children who show resilience in the face of stress and which typify cases that respond positively to psychological interventions may be used as a basis for judging the prognosis for a particular child referred for psychological consultation.

Personal protective factors

At a personal level both biological and psychological protective factors have been identified (Carr, 2009, 2011; Goldstein & Brooks, 2013; Masten, 2013; Rutter, 2013; Ungar et al., 2013; Zolkoski & Bullock, 2012).

Biological protective factors. Children are more likely to show good adjustment if they have good physical health. The absence of genetic vulnerabilities, an adequate intrauterine environment, an uncomplicated birth, no history of serious illnesses and injuries, adequate nutrition and regular exercise all contribute to robust physical health. Gender and age may also affect adjustment positively. Before puberty, girls manage stress better than boys, but after puberty it is boys who have the advantage. Young children are less adversely affected by trauma and stress than older children.

Psychological protective factors. An easy temperament, a high level of intellectual ability and high self-esteem are all associated with positive adjustment. Well-developed self-regulation skills and confidence in the use of these skills are also protective factors. Thus, positive adjustment is associated with an internal locus of control, high self-efficacy beliefs and an optimistic attributional style where successes are attributed to internal, global, stable factors such as ability and failures to external, specific, unstable factors like luck. With respect to self-regulatory skills, functional coping strategies and mature defence mechanisms such as those listed in Tables 2.1 and 2.2 are protective factors.

Where stresses are controllable, functional problem-focused coping strategies are appropriate to use. Indeed, resilience may be fostered by brief exposure to manageable stresses, and the effective use of problem-focused coping strategies, rather than by avoiding these opportunities for mastery (Rutter, 2013). Functional problem-focused coping strategies include accepting responsibility for solving the problem, seeking accurate information about the problem, seeking dependable advice and help, developing realistic action plans, carrying out plans either alone or with the help of other people, staying focused by postponing engaging in competing activities, and maintaining an optimistic view of one’s capacity to solve the problem. Where stresses are uncontrollable, emotion-focused coping strategies such as making and maintaining socially supportive friendships, particularly those in which it is possible to confide deeply felt emotions and beliefs are appropriate. An emotion-focused coping strategy related to seeking social support is catharsis. This is the process of verbally expressing in detail intense emotional experiences and engaging in processing of emotionally charged thoughts and memories within the context of a confiding relationship. Seeking meaningful spiritual support is another emotion-focused coping strategy. Re-framing, cognitive restructuring and looking at stresses from a humorous perspective are emotion-focused coping strategies where the aim is to reduce distress by thinking about a situation in a different way. Relaxation routines and physical exercise are other functional emotion-focused coping strategies used to regulate mood in a highly deliberate way. These emotion-focused coping strategies permit the regulation of negative mood states that arise from exposure to stress. Psychologically disengaging from a stressful situation and the judicious short-term involvement in distracting activities and relationship are functional avoidant coping strategies.

Anticipation, affiliation, altruism, humour, self-assertion, self-observation, sublimation and suppression are adaptive defences (Vaillant, 2000). Anticipation involves considering and partially experiencing emotional reactions and the consequences of these before the conflict or stress occurs and exploring various solutions to these problematic emotional states. Affiliation involves seeking social support from others, sharing problems with them and doing this without making them responsible for the problem or for relieving the distress it entails. Altruism is dedication to meeting the needs of others and receiving gratification from this without engaging in excessive self-sacrifice. When humour is used as a defence, we re-frame situations that give rise to conflict or stress in an ironic or amusing way. Self-assertion involves expressing conflict-related thoughts or feelings in a direct yet non-coercive way. Self-observation involves monitoring how situations lead to conflict or stress and using this new understanding to modify negative affect. Sublimation is the channelling of negative emotions arising from conflict or stress into socially acceptable activities such as work, sports or art. Suppression is the intentional avoidance of thinking about conflict or stress.

Contextual protective factors

Within the child's social context, features of the treatment system, aspects of the family system, individual characteristics of the child's parents or primary caregivers and features of the wider social network including the child's school may all have positive prognostic implications (Carr, 2009, 2011; Goldstein & Brooks, 2013; Komro et al., 2011; Masten, 2013; Masten et al., 2008; Rutter, 2013; Rutter & Maughan, 2002; Ungar et al., 2013; Zolkoski & Bullock, 2012).

Protective treatment system factors

When children and parents engage positively with treatment agencies and professionals within the health care, social welfare, educational, juvenile justice and other relevant service systems, usually this is a positive prognostic sign (Carr, 2009). Children are more likely to benefit from treatment if they and their families accept that there is a problem, are committed to resolving it, have coped with similar problems before and accept the formulation and treatment plan of the psychologist and treatment team. Children are also more likely to benefit from treatment where there is good co-ordination among professionals on a multi-disciplinary treatment team or in an inter-agency network that is sensitive to children's cultural and ethnic context.

Protective family system factors

A positive prognosis is associated with certain aspects of the family system (Goldstein & Brooks, 2013; Komro et al., 2011; Lamb, 2012). Better long-term adjustment may be expected in cases where the child has a secure attachment to a parent or primary caregiver and where parents adopt a warm and moderately controlling authoritative parenting style. Clear and direct communication within the family and a flexible pattern of family organization characterized by explicit rules, roles and routines facilitate a positive response to treatment. Where fathers are involved in the care of the child and where parents have a high level of marital satisfaction, a positive prognosis is more likely.

Protective parental factors

A number of protective parental characteristics have consistently been identified in research studies and clinical practice (Reder et al., 2000, 2004; Reder & Lucey, 1995). A positive response to treatment is probable when parents with high self-esteem who are well psychologically adjusted have an internal working model for secure attachment relationships and accurate knowledge and expectations about their children's development. Self-regulatory beliefs and skills including internal locus of control, high self-efficacy, an optimistic attributional style, mature defences and functional coping strategies are other important parental protective factors. This combination of attributes equips parents particularly well for providing their children with secure attachment relationships and an authoritative parenting environment for meeting children's needs for safety, care, control and intellectual stimulation. This type of parental profile is typical of parents who have had secure attachments to their own parents and who have not been exposed to high levels of life stress without adequate social support. Parents who have faced major challenges in their childhood, including bullying, major trauma and bereavement, but who have been supported through them by parents, peers, teachers or other significant support figures may develop the protective parenting profile outlined earlier.

Protective social network factors

Within the child and family's wider social network, the higher the level of social support and the lower the level of stress, the more probable it is that the child will respond positively to treatment (Carr, 2009; Goldstein & Brooks, 2013; Komro et al., 2011). Better treatment response occurs when children have higher socio-economic status, probably because high socio-economic status is associated with a lower level of stress. For children, day-care placements, pre-school placements, school placements and peer-group membership may be particularly important sources of social support and a forum within which children learn important self-regulatory skills and coping strategies.

Protective day-care placements. High-quality day care is characterized by a continuity in the relationship between the infant and the staff, responsivity in staff reactions to infants' signals and needs, a low ratio of infants to staff, and a safe, spacious and well-equipped physical facility (McGurk et al., 1993). Children who receive high-quality day care and whose parents adopt a responsive style in their interactions with them develop secure attachments to their parents. Where parents have difficulty in meeting their youngster's needs, high-quality day care may be an important source of social support for the children. Furthermore, such day-care placements may provide parents with an opportunity to work outside the home and receive the social support that work-based relationships can provide.

Protective pre-school placements. Pre-school early intervention educational programmes for socially disadvantaged and handicapped children can have long-lasting effects on psychosocial adjustment, cognitive development and school attainment, particularly if certain conditions prevail (Lange & Carr, 2002). A central factor is a good working relationship between the parents and the pre-school staff. Children and parents must also have access to positive role models who, by their example and success, show the value of schooling. Finally, a teaching method which incorporates the elements of planning activities, doing these activities and reviewing performance is vital to success. This *plan-do-review* cycle is premised on Vygotsky's (1962) analysis of effective instruction. Four life skills, the foundations of which are laid by successful pre-school programmes, distinguish those children who have positive outcomes. The first is the development of a goal-oriented and planful approach to solving scholastic and social problems. The second is the development of aspirations for education and employment. The third is the development of a sense of responsibility for one's own actions. The fourth is a sense of duty and responsibility towards others.

Protective school placements. In their ground-breaking study of secondary schools, Rutter et al. (1979) found that a series of features of the secondary school environment had a favourable influence on behaviour and attainment and these factors were independent of child and family characteristics. These features are:

- Firm authoritative leadership of the staff team by the principal
- Firm authoritative management of classes by teachers with high expectations of success, clear rules and regular homework which was graded routinely
- A participative approach to decision-making among the staff about curriculum planning and school management which fostered cohesion among the staff and the principal
- Many opportunities for pupils to participate in the running of the school, which fostered pupil loyalty to the school
- A balance of emphasis on both academic attainment and excellence in other fields such

as sport

- Teachers modelled good behaviour
- Teachers regularly appreciated, rewarded and praised academic and non-academic achievements
- A balance between intellectually able and less able pupils
- An attractive, comfortable and pleasant school environment

Subsequent research on both primary and secondary schools has supported and extended Rutter's original findings and shown that the following attributes are also associated with high attainment: presenting pupils with clear pre-determined goals or standards, creating an expectation of success, structuring material so that it is easily interpretable, using sufficient repetition to keep the pupils on task, presenting information clearly, providing extra help if necessary to ensure that goals are reached and providing feedback (Rathvon, 2008; Rutter & Maughan, 2002; Sylva, 1994). This type of approach to teaching requires moderate class sizes, a variable which has been consistently associated with pupil performance.

Protective peer-group membership. Peer friendships are important because they constitute a significant source of social support and a context within which to learn about the management of networks of relationships (Bryan et al., 2013; Malik & Furman, 1993; Rubin et al., 2009). Emotionally expressive children who have developed secure attachments to their parents and whose parents adopt an authoritative parenting style are more likely to develop good peer friendships. This is probably because their experience with their parents provides them with a useful cognitive model on which to base their interactions with their peers. Surveys of children referred to clinics for psychological consultation show that, in comparison with non-referred children, they have fewer stable friendships and their understanding of the reciprocities involved in friendship are less well developed. Children reared in institutions or whose parents use harsh or physical punishment have particular difficulty with peer relationships in their teens. This is unfortunate, since it is precisely these children who need the social support provided by positive peer relationships.

Implications for practice

This cursory review of factors that influence problem development has clear implications for clinical practice. When children and their families are referred for psychological consultation, their status on relevant personal and contextual predisposing, precipitating, maintaining and protective factors reviewed here and summarized in Figure 2.1 deserves assessment. Salient points from these investigations may then be integrated into a concise formulation which explains how the problem developed and which suggests how the child and family's problems may be treated. Effective psychological treatment and case management typically involves modifying personal and contextual problem-maintaining factors. Often this entails enhancing personal and contextual protective factors. Thus, some psychological interventions may aim to improve children's self-regulatory beliefs and skills through individual or group therapy and training. Other interventions aim to enhance parenting skills and the quality of the family environment through parent training and family therapy. Still other interventions may address the wider social system and aim to reduce stress and enhance extrafamilial support through working with the child's school, peer group, extended family or other involved agencies. The decision about which multi-systemic package of interventions to employ in a particular case should be based on the formulation and available treatment resources. A fuller general discussion of assessment, formulation and treatment planning will be given in Chapter 4. Guidelines for managing specific problems are given in Chapters 6–24.

Summary

The development of psychological problems may be conceptualized as arising from risk factors which predispose children to developing psychological problems, precipitating factors which trigger the onset or marked exacerbation of psychological difficulties, maintaining factors which perpetuate psychological problems once they have developed and protective factors which prevent further deterioration and have implications for prognosis and response to treatment. Most of these factors may be sub-classified as falling into the personal or contextual domains, with personal factors referring to biological and psychological characteristics of the child and contextual factors referring to features of the child's psychosocial environment including the family, the school and peer group. When children and their families are referred for psychological consultation, factors in each of these domains require assessment and salient points from these investigations are integrated into a concise formulation which explains how the problem developed. Treatment typically involves modifying personal and contextual problem-maintaining factors by enhancing personal and contextual protective factors.

Exercise 2.1

Work in pairs. One person take the role of interviewer and the other take the role of interviewee. The interviewer should take 20 minutes to ask the interviewee about influences on an episode of low mood (or some other minor problem) that they have experienced. The various factors mentioned in the chapter should be covered in this interview. The interviewer should then list the predisposing, precipitating, maintaining and protective factors associated with the problem. Then check with the interviewee for accuracy. Reverse roles and repeat the exercise.

Exercise 2.2

This exercise may be completed by an individual or a team. Read the following case and identify predisposing, precipitating, maintaining and protective factors using the framework set out in Figure 2.1.

Carla, aged 12, is an only child whose parents brought her for treatment because she has not been sleeping recently and is persistently tearful. She has been seen by the family doctor and the school counsellor, and it was her teacher who suggested the referral to your service. Her developmental history is relatively normal. She has always had a good relationship with both parents. Her parents take her viewpoint seriously but have clear rules about homework, house chores and pocket money. She also has a few very close friends and plays hockey for the school team. Carla is a determined student and does very well at school. The main problems in her life centre on her mother's illness. Her mother has been repeatedly hospitalized for depression since Carla was born. During these hospitalizations Carla normally stays with her grandmother. In the 2 years prior to the referral the grandmother developed dementia, and 3 months ago she moved into a residential centre. Shortly afterwards, Carla's mother was hospitalized and Carla was cared for by a live-in au pair. Carla's father is very worried about her and has tried to cut down on the amount of time he spends at work. He is a supervisor in a factory and works a shift-work schedule where he is on nights 1 week out of 3. Carla's father has been trying to follow the family doctor's advice of cheering her up by taking her out more and avoiding talking about the mother's depression or the grandmother's dementia. However, the school counsellor has advised that he should spend more time at home talking with her about the sadness she feels about her mother's and grandmother's problems.

Further reading

Rutter, M., Bishop, D., Pine, D., Scott, S., Stevenson, J., Taylor, E., & Thapar, A. (2008). *Rutter's child and adolescent psychiatry* (5th ed.). Oxford: Blackwell.

Chapter 3

Classification, epidemiology and treatment effectiveness

The classification of children and adolescents' psychological problems, their prevalence and the effectiveness of psychological treatment in ameliorating these problems are considered in this chapter. There will be a particular focus on the World Health Organization's (1992, 1996) *International Classification of Diseases* (ICD-10) and the fifth edition of the American Psychiatric Association's (2013) *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5). The characteristics and shortcomings of these classification systems will be outlined. Reference will also be made to the increasingly influential *Revised Diagnostic Classification of Mental Health and Developmental Disorders of Infancy and Early Childhood* (DC: 0–3R; Zero to Three, 2005). The results of some epidemiological studies of childhood psychological disorders will then be reviewed. Finally, research on the effectiveness of the psychological treatment of children's and adolescents' problems will be summarized.

Functions of classification

In clinical psychology, classification has three main functions. First, it facilitates the growth of a body of expert knowledge which includes information about clinical features of psychological difficulties, risk and protective factors associated with their aetiology and maintenance, and effective treatment and prevention programmes. This body of knowledge informs evidence-based clinical practice. Second, classification systems facilitate the development of epidemiological information about the incidence, prevalence and course of psychological problems. This sort of information is used to plan services and decide how to prioritize the allocation of sparse resources. Third, classification systems provide a language through which clinicians and researchers communicate with each other.

ICD-10 and DSM-5

Currently ICD-10 and DSM-5 are the two most widely used systems for classifying psychological problems. DSM-5 is the fifth edition of the American Psychiatric Association's

(2013) *Diagnostic and Statistical Manual of Mental Disorders*. ICD-10 is the tenth edition of the World Health Organization's (1992) *International Classification of Diseases*. Psychological problems are classified in Chapter 5 of this system. In clinical practice, DSM-5 is often viewed as the US alternative to the European ICD-10. However, ICD-10 is not exclusively European. It is the instrument through which the World Health Organization, a United Nations Agency, collects data and compiles statistics on all diseases in UN countries.

DSM and ICD classification systems have been revised on many occasions. These revisions have been influenced by advances in scientific knowledge and also by other factors such as vested interests of those involved in their revision. The American Psychiatric Association, which represents psychiatrists in the US, published the first edition of the *Diagnostic and Statistical Manual* in 1952 (American Psychiatric Association, 1952), and six subsequent revised versions over the next 6 decades (DSM-II, DSM-III, DSM-III-R, DSM-IV, DSM-IV-TR, and DSM-5; American Psychiatric Association, 1968, 1980, 1987, 1994, 2000, 2013). The first two versions of the DSM were influenced by the psychoanalytic tradition. Diagnoses were based on inferred psychodynamic processes rather than observable behaviour. One consequence of this was that many diagnostic categories lacked inter-rater reliability. Also, the system had limited coverage. Many cases presented with problems that fell outside the classification system. These shortcomings were addressed in 1980 in DSM-III. The coverage problem was partly solved by greatly increasing the number of diagnostic categories. The reliability of these categories was improved through the inclusion of explicit diagnostic criteria. While DSM-III was designed to be atheoretical, the biomedical tradition was a predominant influence on this and all subsequent versions of the DSM, which have led to vast increases in the number of children, adolescents and adults using psychotropic medication (Frances, 2013). The third and fourth editions of the DSM also included multi-axial systems to permit coding of additional information on medical and psychosocial functioning. Personality disorders were coded on axis II, medical conditions on axis III, psychosocial problems on axis IV and global functioning on axis V. However, the multi-axial system was dropped in DSM-5.

ICD is published by the World Health Organization in 41 languages and used worldwide for morbidity and mortality statistics, reimbursement systems and health care planning. Early versions of ICD, which date back to the late 1800s, were used to classify causes of death but not illnesses. It was not until 1949 with the publication of ICD-6 (World Health Organization, 1949) that diseases, including 'mental diseases', were listed in ICD. Chapter 5 of ICD-10, which lists psychological problems, was published in 1992 (World Health Organization, 1992). A multi-axial version of ICD-10 is available for the classification of child and adolescent psychological problems (World Health Organization, 1996). In this version of ICD-10 clinical syndromes are coded on axis I, developmental delays on axis II, intellectual level on axis III, medical conditions on axis IV, psychosocial problems on axis V and global functioning on axis VI.

From Table 3.1 it may be seen that ICD-10 contains the following groups of diagnoses of particular relevance to child and adolescent clinical psychology:

- mental retardation
- disorders of psychological development (e.g. language disorder, autism)
- behavioural and emotional disorders with onset usually occurring in childhood and adolescence (e.g. hyperkinetic disorder, conduct disorder, elective mutism, enuresis).

In addition, children and adolescents may have psychological problems that lead to ICD-10 diagnoses in the following broad diagnostic clusters which are not specific to childhood and adolescence:

- mental and behavioural disorders due to psychoactive substance use
- schizophrenia, schizotypal and delusional disorders
- mood disorders (e.g. recurrent depressive disorder, bipolar disorder)
- neurotic, stress-related and somatoform disorders (e.g. social phobia, post-traumatic stress disorder)
- behavioural syndromes associated with physiological disturbances and physical factors (e.g. anorexia nervosa, sleep terrors).

Table 3.1 Main ICD-10 disorders

ORGANIC, INCLUDING SYMPTOMATIC, MENTAL DISORDERS
Dementia in Alzheimer’s disease
Vascular dementia
Dementia in other diseases classified elsewhere (Pick’s, Creutzfeldt-Jakob, etc.)
Organic amnesic syndrome, not induced by alcohol and other substances
Delirium, not induced by alcohol and other psychoactive substances
Other mental disorders due to brain damage and dysfunction and to physical disease
Personality and behavioural disorder due to brain disease, damage and dysfunction

MENTAL AND BEHAVIOURAL DISORDERS DUE TO PSYCHOACTIVE SUBSTANCE USE
Harmful use
Dependence syndrome
Acute intoxication
Withdrawal state
Amnesic syndrome
Psychotic disorder
Residual and late-onset psychotic disorder

SCHIZOPHRENIA, SCHIZOTYPAL AND DELUSIONAL DISORDERS

Schizophrenia
Schizotypal disorder
Persistent delusional disorders
Acute and transient psychotic disorders
Induced delusional disorders
Schizoaffective disorders

MOOD DISORDERS
Bipolar affective disorder
Recurrent depressive disorder
Cyclothymia
Dysthymia

NEUROTIC, STRESS-RELATED AND SOMATOFORM DISORDERS
Agoraphobia
Social phobias
Specific phobias
Panic disorder
Generalized anxiety disorder
Obsessive-compulsive disorder
Post-traumatic stress disorder
Mixed anxiety and depressive disorder
Acute stress reaction
Adjustment disorders
Dissociative or conversion disorders
Somatoform disorders (somatization, hypochondriacal and persistent somatoform pain disorder)
Neurasthenia
Depersonalization/derealization syndrome

BEHAVIOURAL SYNDROMES ASSOCIATED WITH PHYSIOLOGICAL DISTURBANCES AND PHYSICAL FACTORS
Eating disorders
Anorexia nervosa
Bulimia nervosa
Overeating associated with other psychological disturbances

Non-organic sleep disorders
Non-organic insomnia
Non-organic hypersomnia
Non-organic disorder of the sleep–wake schedule
Sleepwalking

Sleep terrors
Nightmares

Sexual dysfunction, not caused by organic disorder or disease
Lack or loss of sexual desire
Sexual aversion and lack of sexual enjoyment
Sexual aversion
Lack of sexual enjoyment
Failure of genital response
Orgasmic dysfunction
Premature ejaculation
Non-organic vaginismus
Non-organic dyspareunia
Excessive sexual drive

Mental and behavioural disorders associated with the puerperium, not elsewhere classified

DISORDERS OF ADULT PERSONALITY AND BEHAVIOUR

Specific personality disorders
Paranoid personality disorder
Schizoid personality disorder
Dissocial personality disorder
Emotionally unstable personality disorder
Histrionic personality disorder
Anankastic personality disorder
Anxious [avoidant] personality disorder
Dependent personality disorder

Enduring personality changes, not attributable to brain damage and disease
Enduring personality change after catastrophic experience or psychiatric illness

Habit and impulse disorders
Pathological gambling
Pathological fire-setting [pyromania]
Pathological stealing [kleptomania]
Trichotillomania

Gender identity disorders
Transsexualism
Dual-role transvestism
Gender identity disorder of childhood

Disorders of sexual preference

Fetishism
Fetishistic transvestism
Exhibitionism
Voyeurism
Paedophilia
Sadomasochism

Psychological and behavioural disorders associated with sexual development and orientation

Sexual maturation disorder
Egodystonic sexual orientation
Sexual relationship disorder

MENTAL RETARDATION

DISORDERS OF PSYCHOLOGICAL DEVELOPMENT

Specific developmental disorders of speech and language

Specific speech articulation disorder
Expressive language disorder
Receptive language disorder
Acquired aphasia with epilepsy [Landau-Kleffner syndrome]

Specific developmental disorders of scholastic skills

Specific reading disorder
Specific spelling disorder
Specific disorder of arithmetical skills
Mixed disorder of scholastic skills
Specific developmental disorder of motor function

Pervasive developmental disorders

Childhood autism
Atypical autism
Rett’s syndrome
Asperger’s syndrome

BEHAVIOURAL AND EMOTIONAL DISORDERS WITH ONSET USUALLY OCCURRING IN CHILDHOOD AND ADOLESCENCE

Hyperkinetic disorders

Disturbance of activity and attention
Hyperkinetic conduct disorder

Conduct disorders

Conduct disorder confined to the family context
Unsocialized conduct disorder

Socialized conduct disorder
Oppositional defiant disorder

Mixed disorders of conduct and emotions
Depressive conduct disorder

Emotional disorders with onset specific to childhood
Separation anxiety disorder of childhood
Phobic anxiety disorder of childhood
Social anxiety disorder of childhood
Sibling rivalry disorder

Disorders of social functioning with onset specific to childhood and adolescence
Elective mutism
Reactive attachment disorder of childhood
Disinhibited attachment disorder of childhood

Tic disorders
Transient tic disorder
Chronic motor or vocal tic disorder
Combined vocal and multiple motor tic disorder [Tourette's disorder]

Other behavioural and emotional disorders with onset usually occurring in childhood and adolescence
Non-organic enuresis
Non-organic encopresis
Feeding disorder of infancy and childhood
Pica of infancy and childhood
Stereotyped movement disorders
Stuttering [stammering]
Cluttering

From Table 3.2 it may be seen that in DSM-5 the group of diagnoses listed under neurodevelopmental disorders are of particular relevance to child and adolescent clinical psychology since they are typically identified during the pre-school years. This group of disorders includes intellectual disability, communication disorders, autism spectrum disorder, attention deficit hyperactivity disorder, specific learning disorder, motor disorders and tic disorders. In addition, children and adolescents may have psychological problems that lead to DSM-5 diagnoses in the following groups which are not specific to childhood and adolescence:

- schizophrenia spectrum and other psychotic disorders
- bipolar and related disorders
- depressive disorders

- anxiety disorders (e.g. selective mutism, social anxiety disorder)
- obsessive-compulsive and related disorders
- trauma- and stressor-related disorders (e.g. post-traumatic stress disorder)
- dissociative disorders (depersonalization/derealization disorder)
- feeding and eating disorders (e.g. anorexia nervosa)
- elimination disorders (e.g. enuresis)
- sleep–wake disorders (e.g. sleep terrors)
- gender dysphoria
- disruptive, impulse-control and conduct disorders (e.g. conduct disorder)
- substance-related and addictive disorders.

Table 3.2 Main DSM-5 disorders

NEURODEVELOPMENTAL DISORDERS
Intellectual disability
Communication disorders
Autism spectrum disorder
Attention deficit hyperactivity disorder
Specific learning disorder
Motor disorders
Tic disorders
SCHIZOPHRENIA SPECTRUM AND OTHER PSYCHOTIC DISORDERS
Schizotypal personality disorder
Delusional disorder
Brief psychotic disorder
Schizophreniform disorder
Schizophrenia
Schizoaffective disorder
Substance/medication-induced psychotic disorder
Psychotic disorder due to another medical condition
Catatonia
BIPOLAR AND RELATED DISORDERS
Bipolar I disorder
Bipolar II disorder
Cyclothymic disorder
Substance/medication-induced bipolar and related disorder
Bipolar and related disorder due to another medical condition
DEPRESSIVE DISORDERS
Disruptive mood dysregulation disorder

Major depressive disorder, single and recurrent episodes
Persistent depressive disorder (dysthymia)
Premenstrual dysphoric disorder
Substance/medication-induced depressive disorder
Depressive disorder due to another medical condition

ANXIETY DISORDERS

Separation anxiety disorder
Selective mutism
Specific phobia
Social anxiety disorder (social phobia)
Panic disorder
Panic attack
Agoraphobia
Generalized anxiety disorder
Substance/medication-induced anxiety disorder
Anxiety disorder due to another medical condition

OBSESSIVE-COMPULSIVE AND RELATED DISORDERS

Obsessive-compulsive disorder
Body dysmorphic disorder
Hoarding disorder
Trichotillomania (hair-pulling disorder)
Excoriation (skin-picking) disorder
Substance/medication-induced obsessive-compulsive and related disorder
Obsessive-compulsive and related disorder due to another medical condition

TRAUMA- AND STRESSOR-RELATED DISORDERS

Reactive attachment disorder
Disinhibited social engagement disorder
Post-traumatic stress disorder
Acute stress disorder
Adjustment disorders

DISSOCIATIVE DISORDERS

Dissociative identity disorder
Dissociative amnesia
Depersonalization/derealization disorder

SOMATIC SYMPTOM AND RELATED DISORDERS

Somatic symptom disorder
Illness anxiety disorder
Conversion disorder (functional neurological symptom disorder)

Psychological factors affecting other medical conditions

Factitious disorder

FEEDING AND EATING DISORDERS
Pica
Rumination disorder
Avoidant/restrictive food intake disorder
Anorexia nervosa
Bulimia nervosa
Binge-eating disorder

ELIMINATION DISORDERS
Enuresis
Encopresis

SLEEP–WAKE DISORDERS
Insomnia disorder
Hypersomnolence disorder
Narcolepsy
Obstructive sleep apnoea hypopnea
Central sleep apnoea
Sleep-related hypoventilation
Circadian rhythm sleep–wake disorders
Sleepwalking
Sleep terrors
Nightmare disorder
Rapid eye movement sleep behaviour disorder
Restless legs syndrome
Substance/medication-induced sleep disorder

SEXUAL DYSFUNCTIONS
Delayed ejaculation
Erectile disorder
Female orgasmic disorder
Female sexual interest/arousal disorder
Genito-pelvic pain/penetration disorder
Male hypoactive sexual desire disorder
Premature (early) ejaculation
Substance/medication-induced sexual dysfunction

GENDER DYSPHORIA DISRUPTIVE, IMPULSE-CONTROL AND CONDUCT DISORDERS

Oppositional defiant disorder
Intermittent explosive disorder

Conduct disorder
Antisocial personality disorder
Pyromania
Kleptomania

SUBSTANCE-RELATED AND ADDICTIVE DISORDERS

Substance use disorder
Substance induced disorders (intoxication and withdrawal)
Specific use and induced disorders for alcohol, caffeine, cannabis, hallucinogens, inhalants, opioids, sedatives, stimulants, tobacco
Gambling disorder

NEUROCOGNITIVE DISORDERS

Delirium
Major neurocognitive disorder
Mild neurocognitive disorder

PERSONALITY DISORDERS

Cluster A Personality Disorders

Paranoid personality disorder
Schizoid personality disorder
Schizotypal personality disorder

Cluster B Personality Disorders

Antisocial personality disorder
Borderline personality disorder
Histrionic personality disorder
Narcissistic personality disorder

Cluster C Personality Disorders

Avoidant personality disorder
Dependent personality disorder
Obsessive-compulsive personality disorder

PARAPHILIC DISORDERS

Voyeuristic disorder
Exhibitionistic disorder
Frotteuristic disorder
Sexual masochism disorder
Sexual sadism disorder
Pedophilic disorder

Fetishistic disorder
Transvestic disorder

MEDICATION-INDUCED MOVEMENT DISORDERS AND OTHER ADVERSE EFFECTS OF MEDICATION, OTHER CONDITIONS THAT MAY BE A FOCUS FOR CLINICAL ATTENTION
Relational problems
Abuse and neglect
Educational or occupational problems
Housing and economic problems
Problems related to crime or interaction with the legal system
Other problems related to the social environment
Other related to other psychosocial, personal or environmental circumstances

From Tables 3.1 and 3.2 it is clear that in ICD-10 and DSM-5 the number of conditions listed and their organization into groups are not the same. ICD-11 is due for publication in 2016, and the intention is for Chapter 5 of ICD-11 to have a similar structure to DSM-5, so that both systems include the same list of disorders grouped in the same way. However, there is controversy about this because of limited evidence for the validity of current diagnostic categories (First, 2009; Uher & Rutter, 2012). The discrepancy between the number and organization of categories in ICD and DSM systems and their limited validity indicate that these classification systems are not ‘carving nature at its joints’, the criterion for a successful theory first proposed in Plato’s *Phaedrus* (Campbell et al., 2011).

Notwithstanding attempts to present DSM as atheoretical, both DSM and ICD are premised on a biomedical model of psychological difficulties. Within this tradition, which can be traced back to Emil Kraepelin (1899), the grandfather of modern psychiatry, it is assumed that psychological problems are symptoms of underlying organic ‘mental illnesses’. It is also assumed that ‘mental illnesses’ are not on a continuum with normal functioning. The aim of research conducted within the biomedical tradition is to identify the discrete causes of these conditions and the specific treatments which address these underlying causes.

Because evidence for the validity of biomedically based psychiatric diagnoses is sparse (with the exception of neuropsychological conditions, the dementias, and moderate to severe intellectual disability), and because the biomedical approach may lead to stigmatization and personal disempowerment, it may be unacceptable to many clinical psychologists (e.g. Bentall, 2009; Beutler & Malik, 2002; Johnstone, 2000; Newnes et al., 1999; Rapley et al., 2011; Smail, 2005). However, it is important that clinical psychologists be familiar with DSM and ICD systems and be able to use them in clinical practice because the administration and funding of clinical services and of some research programmes are framed in terms of DSM and ICD systems. Also, these classification systems are broadly accepted by most mental health professionals, many service users, the media and the general public.

Criticisms of psychiatric classification systems

DSM and ICD classification systems, the biomedical model which underpins these systems, and the process of psychiatric diagnosis and treatment associated with this overall approach to helping people with psychological problems have been extensively criticized. Many widely acknowledged limitations of DSM and ICD classification systems have been summarized by the Clinical Division of the British Psychological Society (2011) in an important position paper written in anticipation of the publication of DSM-5. In this paper it was proposed that DSM and ICD are flawed at a scientific level and also have a negative impact on service users. In each of these domains a series of detailed arguments were presented. The following are the main issues identified as scientific limitations of psychiatric diagnosis:

- subjective interpretation is presented as objective fact
- lack of reliability
- lack of validity
- lack of clinical utility
- over-emphasis on biological factors
- lack of emphasis on contextual factors
- lack of sensitivity to cultural and other types of diversity.

The following are the main issues identified as ways in which psychiatric diagnosis negatively impacts on clients:

- leads to discrimination and social exclusion
- leads to stigmatization which has a negative impact on identity
- marginalizes knowledge from lived experience
- rejection of diagnoses elicits negative responses from mental health professionals
- disempowers service users
- leads to over-reliance on medication.

Each of these issues will be addressed in detail.

Subjective interpretation is presented as objective fact

DSM and ICD diagnoses are frequently presented as objective statements of fact. Diagnoses are given in a manner which conveys that the client has a ‘real illness’, such as major depressive disorder, conduct disorder or ADHD, which requires treatment, and not that these diagnoses are subjective opinions or interpretations. A more accurate position would be that the diagnosing clinician has made a subjective judgement that the person's behaviour and account of their experiences meets the diagnostic criteria for a hypothetical condition. Two further problems are exposed by this more accurate position. The clinician's judgement may be biased by a wide range of factors, to such an extent that the client may be judged by another clinician not to meet the criteria for diagnosis of a psychiatric disorder. The more serious issue, however, is that the diagnosed hypothetical condition may have limited validity (Uher & Rutter, 2012).

Lack of reliability

A major problem with early versions of ICD and DSM systems was their poor inter-rater reliability (Kirk & Hutchins, 1994). This lack of reliability arose for three main reasons. First, diagnoses were based on inferred constructs rather than observable behaviour. Second, there were no explicit criteria for making psychiatric diagnoses, so clinicians were probably using different implicit diagnostic criteria for a given diagnostic category. Third, diagnoses were made on the basis of behaviour elicited by unstandardized interviews. This meant that two clinicians who interviewed the same patient might arrive at different diagnoses because their different interview styles elicited different samples of behaviour. The introduction of standardized diagnostic interviews such as those listed in Table 3.3 addressed this third problem. As was mentioned earlier, DSM-III addressed the other two problems by defining symptoms in observable terms and introducing explicit diagnostic criteria which stated the symptoms required for a diagnosis, the required duration and extent of these, and exclusion criteria. These two features have been retained in later versions of DSM including DSM-5. Despite these innovations, psychiatric diagnoses continue to have limited reliability. Reliability data for conduct disorder, attention deficit disorder, major depression and anxiety disorders are presented in Table 3.4. The data come from Hodges's review of seven major clinic-based studies involving structured interviews with 750 children (Hodges, 1993) and a multi-site field trial of DSM-5 (Regier et al., 2013). The most striking feature of these results is the fact that reliability coefficients all fall below the satisfactory criterion of .7.

Along with the use of diagnostic criteria, since the arrival of DSM-III there has been a gradual narrowing of definitions of disorders to reduce within-category heterogeneity and improve reliability. This effort to improve within-category homogeneity has led to the problem of poor coverage. That is, many cases typically referred for consultation cannot be classified into clearly defined categories. To deal with the poor coverage problem, undefined diagnostic categories have been included in DSM and ICD to accommodate individuals who show some but not all features of a diagnostic category, or constellations of symptoms which fall between two clearly defined clinical syndromes. These undefined diagnostic categories are termed *unspecified*, for example, unspecified depressive disorder. (Unspecified disorders have not been listed in Tables 3.1 and 3.2.) Establishing the reliability of unspecified diagnostic categories has proved challenging.

Table 3.3 Structured interviews and screening instruments for assessing psychological symptomatology in children and adoles

Acronym	*Instrument name*	*Websites and key references*
PAPA	Preschool Age Psychiatric Assessment	Duke University Center for Developmental Epidemiology http://devepi.duhs.duke.edu/papa.html Egger, H. L., Erkanli, A., Keeler, G., Potts, E., Walter, B. K., & Ar (2006). Test-retest reliability of the Preschool Age Psychiatri (PAPA). *Journal of the American Academy of Child & Adole Psychiatry*, *45*, 538–549.
CAPA	Child and Adolescent Psychiatric Assessment	Duke University Center for Developmental Epidemiology: http://devepi.mc.duke.edu/CAPA.html Angold, A., & Costello, E. (2000). The Child and Adolescent Psy Assessment (CAPA). *Journal of the American Academy of C Adolescent Psychiatry*, *39*, 39–48.
K-SADS-PL	Schedule for Affective Disorders and Schizophrenia for School-Age Children – Present and Lifetime Version	University of Pittsburgh Department of Psychiatry http://www.psychiatry.pitt.edu/node/8233 National Institute on Drug Abuse http://datashare.nida.nih.gov/content/schedule-affective-diso schizophrenia-school-age-children-present-and-lifetime-vers Kaufman, J., Birmaher, B., Brent, D. et al. (1997). Schedule for A Disorders and Schizophrenia for School-Age Children–Prese Lifetime Version (K-SADS-PL): Initial reliability and validity *of the American Academy of Child and Adolescent Psychiatr* 989.
DISC	Diagnostic Interview Schedule for Children	http://www.cdc.gov/nchs/data/nhanes/limited_access/interview Shaffer, D., Fisher, P., Lucas, C., Dulcan, M., & Schwab-Stone, M NIMH Diagnostic Interview Schedule for Children Version I DISC-IV): Description, differences from previous versions, a of some common diagnoses. *Journal of the American Acade and Adolescent Psychiatry*, *39*, 28–38.
DAWBA	Development and Well-Being Assessment	DAWBA: http://www.dawba.com/ Goodman, R., Ford, T., Richards, H., Gatward, R., & Meltzer, H. Development and Well-Being Assessment: Description and i validation of an integrated assessment of child and adolescen psychopathology. *Journal of Child Psychology and Psychiatr*
ASEBA	Achenbach System of Empirically	ASEBA: http://www.aseba.org/

	Based Assessment	
SDQ	Strengths and Difficulties Questionnaire	SDQ: http://www.sdqinfo.com/

Table 3.4 Kappa reliability coefficients for diagnoses of four childhood psychological disorders

Disorder	*DSM-III-R (Hodges, 1993)*	*DSM-5 (Regier et al., 2013)*
Conduct disorder	.62	.46
Attention deficit disorder	.52	.61
Major depression	.62	.28
Anxiety disorders	.52	–

Note: Reliability coefficients in this table are based on data presented in Table 1 of Hodges's (1993) review and Tables 4 and 5 in Regier et al.'s (2013) multi-site field trial of DSM-5.

Lack of validity

The validation of diagnostic categories within DSM and ICD systems involves conducting research programmes which demonstrate that cases which meet the diagnostic criteria for a particular category share common critical characteristics. These include predisposing risk factors, precipitating factors that trigger the onset of the disorder, maintaining factors that lead to persistence or exacerbation of the disorder and protective factors that modify the impact of aetiological factors. These factors may potentially fall within the biological, psychological or social domains, although within the biomedical tradition the primary emphasis is on biological factors. The course of the disorder over time and the response of cases to specific treatments should also be shared to a fairly marked degree by cases falling within the same valid diagnostic category. Despite extensive research on many disorders, it is difficult to point to any one condition where validity on all of these criteria has been established (Bentall, 2004; Boyle, 2002; Uher & Rutter, 2012). There is not a high level of specificity in the links between aetiological factors and the psychological problems of children and adolescents. Indeed, the literature reviewed in Chapter 2 underlines the degree to which many of the same predisposing, precipitating and maintaining factors are shared by different types of psychological problems. Furthermore, the course of any disorder and its response to treatment is highly variable and is strongly influenced for most disorders by co-morbidity and the number of risk factors present (Carr, 2009).

Lack of clinical utility

The limited reliability and validity of DSM and ICD classification systems constrain their usefulness for informing policy, commissioning and developing services, creating treatment guidelines, conducting clinical practice and carrying out research.

Very different interventions may be required by cases with the same DSM or ICD diagnosis, and very similar interventions may be required by cases with different diagnoses. A depressed teenager who has experienced chronic intrafamilial child abuse and a dysphoric adolescent who has sustained a sports injury and failed his exams may require very different treatment programmes, despite the fact that they both meet the criteria for major depressive disorder. The former may benefit from a complex multi-systemic intervention (Henggeler et al., 2002) and the latter from individual cognitive-behavioural therapy (Verduyn et al., 2009). An adolescent who presents with conduct disorder and another who presents with substance use disorder may both benefit from the same treatment, for example functional family therapy (Sexton, 2011). These very common examples highlight the limited utility of diagnostic categories for guiding clinical practice and service planning.

Over-emphasis on biological factors

As has been noted earlier, DSM and ICD classification systems have both evolved within a biomedical tradition which dates back to Emil Kraepelin (1899). Within this tradition psychological problems, abnormal and atypical experiences, and personal distress are conceptualized as symptoms of underlying psychopathology which is primarily biologically based. Research informed by this position has investigated the role of biological factors such as dysregulation of neurotransmitter systems, structural and functional brain abnormalities, and genetic vulnerabilities in the aetiology of psychological difficulties. The biomedical tradition has also advocated the use of biological intervention such as medication and electroconvulsive therapy (ECT) to treat psychological problems. Within this tradition psychological interventions are viewed as an adjunct to biological treatments which target the underlying neurobiological basis for 'mental illness'. The search for disorder-specific brain pathology has, so far, been unsuccessful (Uher & Rutter, 2012). While some medications are disorder specific (e.g. stimulants for ADHD), others such as serotonin reuptake inhibitors have wide applicability across a range of mood and anxiety disorders. Furthermore, without psychological interventions, biomedical interventions have limited long-term positive effects (Carr, 2009). In short, there is limited evidence for the idea implicit in DSM and ICD classification systems that most psychological problems are due to specific brain diseases which can be alleviated with specific medications. Unfortunately the dominance of the DSM and ICD biomedical model within public health services minimizes attention paid to psychosocial factors in the aetiology of psychological problems and personal distress and the need for psychological treatment programmes to be more widely available as first-line interventions (Boyle, 2013; Cromby et al., 2013; Moncrieff, 2008; Rapley et al., 2011).

Lack of emphasis on contextual factors

Because DSM and ICD classification systems have both evolved within a biomedical tradition where psychological problems and personal distress are viewed as symptoms of underlying biologically based ‘mental illnesses’, these systems may decontextualize psychological problems. The process of psychiatric diagnosis (and in many instances the prescription for psychotropic medication) may obscure the links between people’s psychological problems and their social and historical contexts. For most psychological problems, personal and contextual predisposing, precipitating, maintaining and protective factors may be identified (as outlined in Chapter 2). If clinical psychologists work in health care systems where ICD and DSM diagnoses are used, then offering comprehensive formulations along with diagnoses may go some way towards preventing the decontextualizing process associated with psychiatric diagnosis from occurring.

Because in some cases psychological problems are reactions to stresses inherent in the structure of society such as poverty, injustice, prejudice, racism, sexism, ageism and intolerance for nonconformity, there is a social activist role for clinical psychologists to play in highlighting the role of these contextual factors in the aetiology and maintenance of psychological problems (Johnstone, 2000; Newnes et al., 1999; Rapley et al., 2011; Szasz, 2010). Psychiatric diagnosis, with its implicit emphasis on biomedical factors in the aetiology of psychological problems and its privileging of physical treatment, draws attention away from important psychosocial and political changes that may be required to alleviate psychological distress and to preserve civil liberties.

Lack of sensitivity to cultural and other types of diversity

DSM and ICD classification systems have both evolved not just within a biomedical tradition, but within a patriarchal Western worldview. By definition, the process of diagnosis using these classification systems involves ethnocentric bias when clinicians are diagnosing people from groups that differ from their own in terms of ethnicity, sexuality, gender, class, spirituality and culture. Psychiatric diagnosis can be discriminatory to a diverse range of groups whose worldviews, values and lifestyles fall outside the norms of a mainstream patriarchal Western worldview (e.g. Bayer, 1987; Busfield, 1996; Fernando, 2010). If clinical psychologists work in health care systems where ICD and DSM diagnoses are used, then actively developing sensitivity to the worldviews, values and lifestyles of service users from other social and cultural groups may go some way towards preventing the ethnocentric bias inherent in the ICD and DSM diagnostic systems from adversely affecting clients (Patel et al., 2000).

Impact on clients

ICD and DSM diagnoses may have a positive or negative impact on clients. Some parents are relieved when they hear that their child has a diagnosis of ADHD, autism or selective mutism because these diagnoses help them to understand their child's condition, suggest ways that these conditions may be managed and may entitle them to special educational resources for their child. However, in other cases parents and children are distressed by a diagnostic label like major depressive disorder or post-traumatic stress disorder. They may prefer to view these conditions as understandable stress reactions to challenging life events rather than as stigmatizing 'mental illnesses'. What follows are some of the ways in which the Clinical Division of the British Psychological Society (2011) proposes that psychiatric diagnoses may have a negative impact on clients.

Leads to discrimination and social exclusion

Receiving an ICD or DSM diagnosis can lead to discrimination and social exclusion due to prevailing negative social attitudes towards those with a psychiatric diagnosis, particularly psychosis (Corrigan et al., 2011; Read et al., 2006).

Leads to stigmatization which has a negative impact on identity

The language of disorder, deficit and disability which is central to ICD and DSM classification systems may lead to stigmatization, a negative self-image and low self-esteem. Clients may come to view themselves predominantly in terms of their psychiatric diagnoses, deficits and disabilities, and fail to appreciate their strengths, resilience and personal resources (Barham & Hayward, 1995; Corrigan et al., 2011; Estroff, 1993; Honos-Webb & Leitner, 2001).

Marginalizes knowledge from lived experience

Clients typically make sense of their problems and the distress that these cause in terms of their personal lived experiences. These experiences may include challenges and stresses which they have encountered (e.g. bullying or bereavement), life transitions they are going through (e.g. starting school or moving house), coping strategies that they have used (e.g. drug use or running away), relationship problems (e.g. parental separation or domestic violence) and resource problems (e.g. poverty). These sorts of factors are not accorded a prominent place in ICD and DSM diagnostic systems and are viewed as relatively minor trigger factors within the biomedical model that underpins the ICD and DSM systems (Beresford, 2013). This marginalization of clients' understandings of their problems in terms of their lived experiences, in favour of biomedical explanations, without acknowledgement of the limitations of such explanations, may be distressing for clients.

Rejection of diagnoses elicits negative responses from mental health professionals

If ICD and DSM diagnoses are presented in an authoritarian way as objective facts rather than jointly arrived at in a collaborative way, with acknowledgement, as appropriate, of the limitations of the diagnostic system and the biomedical model, then clients may be more likely to disagree with their diagnoses. Where clients reject a diagnosis, this can be interpreted by mental health service providers as reflecting lack of insight, without acknowledging the limitations of the biomedical model or the interpersonal impact of an authoritarian approach to diagnosis (Terkelsen, 2009). This process can be distressing for clients.

Disempowers service users

Mental health services in which ICD and DSM diagnoses inform biomedical treatment of psychological problems may create a context within which service users are personally disempowered and in which they become dependent on mental health professionals for expert advice and treatment (Johnstone, 2000). Such biomedically based treatment systems run the risk of discouraging clients from making personal choices about their own recovery. Indeed, some recovery narratives include a rejection of diagnoses as a central part of the recovery process (Bassman, 2007; Deegan, 1993; Longden, 2010; May, 2000).

Thomas Szasz (2010) argued that service users involuntarily detained under mental health legislation suffer greater disempowerment than people imprisoned for criminal activity. Under mental health legislation, involuntary detention and treatment involves establishment of a psychiatric diagnosis which places the individual at risk of self-harm or causing harm to others.

Leads to over-reliance on medication

Mental health services in which ICD and DSM diagnoses inform biomedical treatment of psychological problems create a context where there is an over-reliance on medication, without acknowledgement of their limitations and side effects, and without appropriate resourcing of psychological alternatives (Moncrieff, 2008; Rapley et al., 2011).

Addressing the potential negative impact of diagnosis

Where clinical psychologists work in mental health service where ICD and DSM diagnoses are used to inform treatment, it is vital that they are mindful of the potential negative effects of diagnosis on clients, as outlined earlier, and that they take steps to reduce the negative impact of diagnosis on client well-being. Developing an empathic, positive, respectful, collaborative therapeutic alliance is central to this process. The therapeutic alliance will be discussed in more detail in Chapter 4.

Disease mongering for financial gain

In the US, Allen Frances (2013), head of the DSM-IV Task Force, has criticized DSM-5 for ‘disease mongering’ for financial gain. That is, many normal human experiences such as childhood tantrums, overeating, grief following loss and forgetfulness in later life have been defined in DSM-5 as psychiatric disorders. These disorders may then be diagnosed and treated with medication, yielding very significant profits for the profession of psychiatry and pharmaceutical companies that produce psychotropic medication. Where clinical psychologists work in mental health service in which ICD and DSM diagnoses are used to inform treatment, they have a role in questioning the medicalization of normal human experiences, and in proposing the use of psychological interventions to alleviate distress.

Alternatives to ICD and DSM

The modest reliability, limited validity and questionable utility of ICD and DSM classification systems are due to the fact that most psychological difficulties are not distributed within the population as disease-like categorical entities. Rather they occur as either normally distributed dimensional characteristics, or in the case of children and adolescents as complex interactional problems involving children and members of their social networks or combinations of both. It is therefore expedient for clinical psychologists to make use of dimensional systems such as Achenbach System for Empirically Based Assessment (ASEBA; Achenbach et al., 2012) and systemic frameworks (Carr, 2012) in assessing psychological problems in young people. For very young children, ICD and DSM classification systems are of limited developmental relevance. For children under 3 years the Diagnostic Classification of Mental Health and Developmental Disorders in Infancy and Early Childhood is increasingly used (DC: 0–3R; Zero to Three, 2005). The failure of diagnosis-based research to validate diagnostic categories led the US National Institute of Mental Health (NIMH) in 2013 to cease funding research exclusively based on DSM categories and to develop a dimensional framework known as Research Domain Criteria (RDoC; Cuthbert & Insel, 2013) to guide future research on developmental psychopathology. In the following sections an outline will be given of these alternatives to ICD and DSM.

Dimensional approaches

Psychometric studies involving factor analysis and other multi-variate methods indicate that children’s behaviour problems are most parsimoniously conceptualized as falling along dimensions which are normally distributed within the population. Internalizing and externalizing behaviour problems are two broadband dimensions which have consistently been identified in a wide range of cultural contexts, using a wide range of behaviour checklists and assessment instruments and a number of multi-variate statistical procedures (Achenbach et al., 2012). Internalizing behaviour problems include, for example, crying, worrying and withdrawal, and are most acutely problematic for the child rather than for parents or teachers. In contrast, externalizing behaviour problems, which include difficulties such as tantrums, fighting and disobedience are usually of most concern to parents and teachers rather than children.

Achenbach's System for Empirically Based Assessment (ASEBA; Achenbach, 2009), which includes behaviour checklists of children's problems for completion by parents, teachers, young people and other informants, is one of the most widely used approaches for dimensional assessment of behaviour problems. ASEBA is suitable for assessing children and adolescents aged 1.5–18 years. There are also ASEBA assessment instruments for adults. They yield scores for internalizing and externalizing behaviour problem scales, scores for seven or eight empirically derived syndromes (listed in Table 3.5) and scores on a small number of DSM-oriented scales. The latter contain groups of items judged by experts to closely match DSM diagnostic criteria for these disorders. The empirically derived syndromes listed in Table 3.5 were identified through factors analysis of ASEBA checklist items. It is notable just how few syndromes emerged from these factor analyses in comparison to the proliferation of categories and subcategories in DSM and ICD.

Table 3.5 Empirically derived syndromes assessed by the Child Behaviour Checklist and related ASEBA instruments

	Age 1.5–5	*Age 6–18*
Internalizing syndromes	Anxious-depressed	Anxious-depressed
	Withdrawn	Withdrawn-depressed
	Somatic complaints	Somatic complaints
	Emotionally reactive	
Externalizing syndromes	Aggressive behaviour	Aggressive behaviour
	Attention problems	Rule-breaking behaviour
Mixed syndromes	Sleep problems	Attention problems
		Thought problems
		Social problems

While the ASEBA system was developed in the US, the Strengths and Difficulties Questionnaire (SDQ, Goodman, 2001) multi-informant assessment system was developed in the UK. It is often viewed as the UK alternative to ASEBA, although both sets of instruments have been translated into many languages and both are widely used internationally (Achenbach et al., 2012). The SDQ checklists, which each contain about 25 items, are shorter than their ASEBA counterparts, which contain about 100 items. SDQ instruments yield scores for conduct, emotional, peer and ADHD problems only, as well as a pro-social behaviour score. Factor analyses of SDQ instruments yield internalizing and externalizing dimensions similar to those identified in factor analyses of ASEBA checklists (Achenbach et al., 2012).

Websites for SDQ and ASEBA instruments are listed in Table 3.3.

Dimensional conceptualizations of behavioural and learning problems offer a useful framework for assessing childhood psychological problems in many instances. The use of reliable and valid behaviour checklists and ability tests can readily be incorporated into routine clinical practice to provide assessments of the status of children on such dimensions. Cut-off scores can be used, when administratively necessary, to translate dimensional scores into diagnoses. Improvement or deterioration may be assessed in terms of changes in scores along dimensions. However, with any assessment system, account must be taken of the impact of the situation in which observations were made and the status of the informant. The degree of agreement between parents, teachers and youngsters about the severity of internalizing and externalizing behavioural problems vary substantially, with correlations between informants ranging from .3 to .8 (Achenbach, 2009).

While dimensional systems like ASEBA have much to recommend them, they also have limitations. Psychometric research using factor analysis and other multi-variate methods are useful for identifying relatively prevalent syndromes which contain many symptoms. However, they are less useful for identifying rare syndromes which are more parsimoniously conceptualized in categorical rather than dimensional terms (Coghill & Sonuga-Barke, 2012). These include, for example, bipolar disorder or those involving a single symptom such as encopresis. Thus, diagnostic categories are particularly useful for conceptualizing some disorders and single symptom presentations such as pica or night terrors. Specific learning disabilities, such as dyslexia, and severe intellectual disability are also distributed within the population as categorical entities. In contrast, mild and moderate intellectual disability appear to be distributed as the tail of a normal distribution of cognitive ability conceptualized in dimensional terms (Iarocci & Petrill, 2012).

Systemic approaches

Both categorical and dimensional approaches for conceptualizing childhood problems entail the assumption that psychological difficulties are inherent characteristics of the child. Of course, to some degree this is a useful way to think about such problems. However, children's problems are typically part of patterns of interaction that involve family members and members of the wider social and professional networks in which families are embedded (Carr, 2012). For example, many conduct problems evolve as part of a chaotic family system characterized by marital discord and parenting skills deficits within a social context where parents experience little social support and considerable stress. Similarly, separation anxiety is described in ICD and DSM systems as if it were an inherent characteristic of the child, when the evidence suggests that it is one part of an interactional pattern usually involving mutual concerns for safety expressed by both mother and child which occasionally fathers, members of the extended family and involved medical and educational professionals criticize as inappropriate or deviant. It is common for this type of system to evolve following some threat to the family's integrity such as a loss or bereavement. Research on conduct disorders and separation anxiety which support these views is considered in Chapters 10 and 12, respectively.

Categorical and dimensional individualistic models of psychological problems obscure the interactional embeddedness of most childhood difficulties. Families whose children are referred for psychological consultation may differ along a variety of contextual parameters which allow therapeutically useful distinctions to be made (Carr, 2012). These distinctions include:

- focal-problem families versus multi-problem families
- simple/traditional family structure versus complex/alternative family structure
- adaptively organized families versus rigidly or chaotically organized families
- emotionally close, enmeshed families versus emotionally distant, disengaged families
- families at different lifecycle stages
- families in which violence or abuse is occurring including physical, sexual and emotional abuse
- families adjusting to physical illness.

It may be useful for clinical psychologists to incorporate these types of distinctions into the way they organize the classification of referrals. In the audit form presented in Figure 5.9 in Chapter 5, cases are classified as focal problem or multi-problem referrals.

Diagnostic classification of mental health and developmental disorders in infancy and early childhood – DC: 0–3R

Dissatisfaction among clinicians about the applicability of DSM and ICD to children under 3 inspired the National Association for Children and Toddlers to develop the DC: 0–3. The DC: 0–3 was published in 1994 and a revised version, DC: 0–3R, in 2005. Zero to Three is a US multi-disciplinary organization concerned with promoting the well-being of infants (http://www.zerotothree.org). DC: 0–3R is a multi-axial system similar in some respects to the current ICD multi-axial system for children and adolescents (WHO, 1996), but cast in a way to take greater account of the developmental psychology of children under 3 years. A list of possible diagnoses on axis I of this system is presented in Table 3.6. This list reflects an extension of diagnostic categories available in the ICD and DSM systems, and diagnostic criteria have been refined for use with young children. On the second axis the quality of the relationship that the child has with the primary caregiver is coded, and this reflects the importance accorded to attachment and exposure to abuse in child development. Medical problems are coded on the third axis and exposure to psychosocial stresses on the fourth axis.

On the fifth axis emotional and social developmental level is coded. This axis has been included in recognition of the importance of achieving milestones in emotional competence during the first 3 years for long-term adjustment. The Preschool-Age Psychiatric Assessment (PAPA; Egger et al., 2006) listed in Table 3.3 is one of the very few structured interviews for making DC: 0–3R diagnoses. The DC: 0–3R is a useful attempt to develop a diagnostic classification system of relevance to children under 3, but because it rests on a categorical framework, it will probably be shown to have many of the difficulties entailed by the DSM and ICD systems.

Table 3.6 Main DC: 0–3R axis 1 clinical disorders

Post-traumatic stress disorder
Deprivation/maltreatment disorder
Disorders of affect
Prolonged bereavement/grief reaction
Anxiety disorders of infancy and early childhood
Separation anxiety disorder
Specific phobia
Social anxiety disorder
Generalized anxiety disorder
Anxiety disorder NOS
Depression of infancy and early childhood
Type I Major depression
Type II Depressive disorder NOS
Mixed disorder of emotional expressiveness
Adjustment disorders
Regulation disorders of sensory processing
Hypersensitive
Hypersensitive, type A: fearful/cautious
Hypersensitive, type B: negative/defiant
Hyposensitive/under-responsive
Sensory seeking/impulsive
Sleep behaviour disorders
Sleep onset disorder (protodyssomnia)
Night-waking disorder (protodyssomnia)
Feeding behaviour disorder
Feeding disorder of state regulation
Feeding disorder of caregiver–infant reciprocity
Infantile anorexia
Sensory food aversions
Feeding disorder associated with concurrent medical condition

Feeding disorder associated with insults to the gastrointestinal tract
Disorders of relating and communicating
Multi-system developmental disorder

RDoC – Research Domain Criteria

In the US, the failure of diagnosis-based research to validate diagnostic categories led the NIMH to cease funding research based exclusively on DSM diagnostic categories and to develop RDoC, which is a dimensional framework to guide future research on developmental psychopathology (Cuthbert & Insel, 2013). The principal systems within the RDoC matrix are negative valence systems (e.g. fear, anxiety and loss), positive valence systems (e.g. reward learning), cognitive systems (e.g. attention, perception and working memory), systems for social processes (e.g. attachment and communication) and arousal systems (e.g. sleep–wake cycle). In each of these domains researchers will identify the genetic, physiological and cognitive factors that subserve variation along behavioural dimensions on which clinical and non-clinical cases are distributed. This body of knowledge will eventually throw light on how dysfunctions in these underlying systems lead to difficulties such as internalizing and externalizing behaviour problems.

A framework for the classification of problems

The framework used in this book for classifying the main psychological problems of concern to psychologists working with children, adolescents and their families is presented in Table 3.7. Problems are organized developmentally by the stage of the child's life at which they usually emerge. Thus a distinction is made between those that typically occur first during the pre-school years, those that commonly emerge in middle childhood and those that are principally a concern in adolescence. Problems associated with two major sources of stress (abuse and developmental transitions such as bereavement or divorce) have been categorized separately.

Pre-school problems include difficulties associated with sleeping and toileting. Feeding difficulties (often included as a pre-school problem in other texts) are considered with neglect and non-organic failure to thrive. Specific learning difficulties, developmental delays, intellectual disability and autism spectrum disorders are also included as problems which first come to attention in the pre-school years.

Table 3.7 Broad problem areas in clinical child psychology

Problems in early childhood	Sleeping problems
	Toileting problems
	Learning disabilities
	Pervasive developmental disorders
	Conduct problems

Problems in middle childhood	Attention deficit hyperactivity disorder
	Anxiety problems
	Repetition problems
	Somatic complaints
Problems in adolescence	Drug abuse
	Mood regulation problems
	Eating disorders
	Schizophrenia
Problems associated with child abuse	Physical abuse problems
	Problems related to emotional abuse and neglect
	Sexual abuse–related problems
Problems associated with major developmental transitions	Substitutive childcare–related problems
	Separation and divorce adjustment problems
	Grief associated with bereavement and life-threatening illness

Conduct problems and attention deficit hyperactivity problems, both of which involve externalizing behavioural difficulties, are included in the list of problems which typically emerge in middle childhood. The internalizing behavioural difficulties which are included here are anxiety problems, somatic complaints and repetition problems such as obsessive-compulsive disorder, tics and Tourette’s disorder.

In adolescence, the main externalizing problem included is drug misuse, and the internalizing problems are depression, psychosis and eating disorders such as anorexia.

Under the general heading of problems associated with abuse, distinctions are made between those associated with physical abuse, sexual abuse and emotional abuse along with related problems such as neglect and non-organic failure to thrive. Under the heading of problems associated with developmental transitions, reactions to divorce, bereavement and placement in care are considered. Problems associated with abuse and major life transitions have been separated out from other difficulties because they may occur at any point in the child’s development and because they place unique types of demands on clinical psychologists.

The framework for classifying problems set out in Table 3.7 is by no means exhaustive. Many problems have been excluded. However, it covers most of the problems seen in routine clinical practice and offers an overall framework within which problems as defined in ICD and DSM systems and elsewhere may be incorporated.

Epidemiology

While the classification of childhood disorders address the question ‘How many different sorts of problems are there?’, the central question for epidemiology is ‘How many children in the population have these problems?’ Epidemiology is also concerned with the identification of factors associated with the distribution of diagnoses within populations.

Reviews of major international epidemiological studies of child psychopathology lead to the following conclusions (Costello et al., 2004; Merikangas et al., 2009). In westernized countries in any 3–6 month period about 1 in 4 children meet the diagnostic criteria for a psychological disorder. The prevalence of disruptive behaviour disorders (including oppositional defiant and conduct disorders) is about 6.2% (with a range of 4.6–13.8%); of ADHD, about 2.7% (with a range of 0.3–11.3%); of any anxiety disorder, about 8.1% (with a range of 1.9–23.8%); and of major depressive disorder, about 4% (with a range of 0.2–17%). The prevalence of eating disorders, autism spectrum disorders and psychotic disorders in children is under 1%.

Table 3.8 presents point prevalence rates for disorders assessed in two British Child and Adolescent Mental Health Surveys conducted in 1999 and 2004 with over 17,000 young people aged 5–15 and their families (Green et al., 2005; Meltzer et al., 2000). The following are some of the broad conclusions that can be drawn from Table 3.8:

- Overall, 9.5–9.6% of children have psychological disorders of some sort which cause significant impairment in functioning.
- Rates of psychological disorders increase with age. The rate for 5–10 year olds is 8.2% and for 11–15 year olds is 11.2%.
- Rates of psychological disorders are higher for boys. The rate for boys is 11.4–11.6% and for girls it is 7.5–7.6%.
- Conduct disorders are more prevalent than emotional disorders, which in turn are more prevalent than ADHD. Overall 5.3–5.9% have conduct problems, 3.5–4.3% have emotional problems, 1.4–1.5% have ADHD and fewer than 0.5% have less common problems (pervasive developmental disorders, eating disorders and tics).
- Conduct problems are twice as common in boys as girls, and rates of conduct problems increase with age.
- ADHD is five times more common in boys than girls, but rates do not increase with age.
- Overall rates of emotional disorders are similar in pre-adolescent boys and girls. Rates almost double in adolescence, but the increased rate is greater for girls.

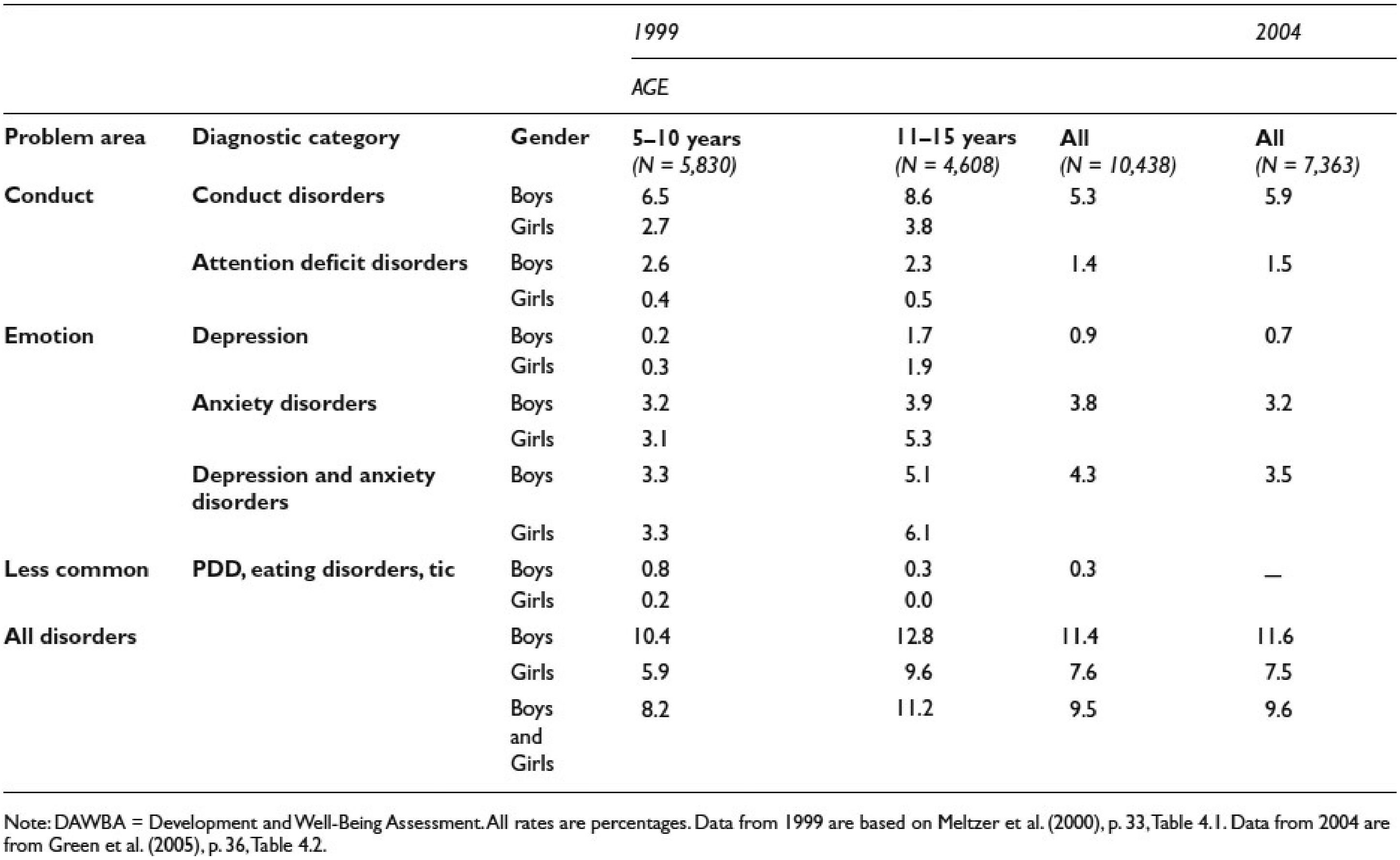
Table 3.9 shows that co-morbidity rates for conduct disorder, attention deficit hyperactivity disorder, depression and anxiety disorders in community samples range from 10–20%. Table 3.9 is based on aggregated data from four international community-based surveys involving a total of 2,662 cases in which structured interviews and DSM-III criteria were used

(McConaughy & Achenbach, 1994). Table 3.10 shows that co-morbidity is far more common in clinical compared with community samples. Co-morbidity rates among clinical cases range from 23–47%, whereas as co-morbidity rates in the community range from 12–28%. Co-morbidity rates in Table 3.10 are from McConaughy & Achenbach's (1994) study of 2,600 community and 2,707 clinical cases in the US, aged 4–16. Parents and youngsters over 11 years completed ASEBA checklists. Cases were given a positive diagnosis if they scored above the 95th percentile on empirical syndrome scales. These scales hold much in common with DSM diagnostic categories. The aggressive behaviour scale overlaps considerably with the DSM diagnosis of conduct disorder. The attention problem scale holds much in common with the DSM attention deficit hyperactivity disorder. Symptoms of both DSM depressive and anxiety disorders are contained in the anxious depressed scale. The somatic complaints scale contains items that are common in cases of both DSM separation anxiety and somatization disorder.

As children mature into teenagers there is a change in prevalence of psychological disorders, with distinct patterns for boys and girls. From childhood to adolescence there is an increase in rates of depression, panic disorder, agoraphobia and substance use disorders, and a decrease in rates of separation anxiety disorder and attention deficit hyperactivity disorder (Costello et al., 2011). Disruptive behaviour disorders are more common in boys and anxiety disorders are more common in girls. Before puberty, rates of depression are similar for boys and girls, but by the end of adolescence the rate of depression among girls is double that of boys (Merikangas et al., 2009).

Drawing definitive conclusions on the cross-cultural epidemiology of childhood psychopathology has been constrained by wide variability in types of standard interviews used for data collection and other methodological issues. In a review of international epidemiological studies of childhood psychological disorders from many countries, Achenbach et al. (2012) found that prevalence estimates varied greatly from country to country due to both actual prevalence differences and methodological variations across studies. However, in a re-analysis of ASEBA data from 44 countries, Rescorla et al. (2012) found that confirmatory factor analyses supported the ASEBA model of eight syndromes fitting within a hierarchical model beneath internalizing and externalizing behaviour problem dimensions for all 44 countries. Considerable consistency was found in problems that received relatively low, medium or high ratings, and for age and gender effects across societies. However, there were sufficient differences between societies to warrant culturally specific norms for ASEBA instruments. This suggests that each culture may have its own idioms of distress (Nichter, 2010).

Table 3.8 Point prevalence of psychological disorders as assessed by the DAWBA in boys and girls in the UK in 1999 and 2004



			1999			2004
			AGE			
Problem area	**Diagnostic category**	**Gender**	**5–10 years** (N = 5,830)	**11–15 years** (N = 4,608)	**All** (N = 10,438)	**All** (N = 7,363)
Conduct	**Conduct disorders**	Boys	6.5	8.6	5.3	5.9
		Girls	2.7	3.8		
	Attention deficit disorders	Boys	2.6	2.3	1.4	1.5
		Girls	0.4	0.5		
Emotion	**Depression**	Boys	0.2	1.7	0.9	0.7
		Girls	0.3	1.9		
	Anxiety disorders	Boys	3.2	3.9	3.8	3.2
		Girls	3.1	5.3		
	Depression and anxiety disorders	Boys	3.3	5.1	4.3	3.5
		Girls	3.3	6.1		
Less common	**PDD, eating disorders, tic**	Boys	0.8	0.3	0.3	–
		Girls	0.2	0.0		
All disorders		Boys	10.4	12.8	11.4	11.6
		Girls	5.9	9.6	7.6	7.5
		Boys and Girls	8.2	11.2	9.5	9.6

Note: DAWBA = Development and Well-Being Assessment. All rates are percentages. Data from 1999 are based on Meltzer et al. (2000), p. 33, Table 4.1. Data from 2004 are from Green et al. (2005), p. 36, Table 4.2.

Table 3.9 Co-morbidity in community populations for four major DSM diagnostic categories

	Conduct disorder	*Attention deficit disorder*	*Major depression*
Attention deficit disorder	23.3%		
Major depression	16.9%	10.5%	
Anxiety disorders	14.8%	11.8%	16.2%

Note: Figures in this table are based on aggregated data from four international studies involving 2,662 cases abstracted from McConaughy & Achenbach (1994), Table 2.

Table 3.10 Co-morbidity in community and clinic populations for four major syndromes on child and parent completed versions of ASEBA behaviour checklist

	Aggressive behaviour	*Attention problems*	*Anxious-depressed*
Attention problems	Comm. Parent rep 28% Comm. Child rep 26% Clinic Parent rep 47% Clinic Child rep 40%		
	Comm. Parent rep 26%	Comm. Parent rep 28%	

Anxious-depressed	Comm. Child rep 20% Clinic Parent rep 41% Clinic Child rep 34%	Comm. Child rep 25% Clinic Parent rep 43% Clinic Child rep 43%	
Somatic complaints	Comm. Parent rep 14% Comm. Child rep 16% Clinic Parent rep 23% Clinic Child rep 25%	Comm. Parent rep 12% Comm. Child rep 16% Clinic Parent rep 23% Clinic Child rep 25%	Comm. Parent rep 15% Comm. Child rep 20% Clinic Parent rep 30% Clinic Child rep 32%

Note: Figures in this table are abstracted from McConaughy & Achenbach (1994), Tables 3 and 5, and are based on 2,600 community and 2,707 clinical cases in the US, aged 4–16. Parents completed Child Behaviour Checklists and youngsters over 11 completed the Youth Self-Report Form. Cases were given a positive diagnosis if they scored above the 95th percentile on the syndrome scale. Bidirectional co-morbidity in all cells = Cases Da, Db / Cases Da, Db+ Cases Da, not Db+ Cases Db, not Da, where Da is diagnosis a and Db is diagnosis b.

The effectiveness of psychological therapy

Results of a series of meta-analyses reviewed in Carr (2009) involving over 350 treatment outcome studies showed that about 2 out of 3 young people improve as a result of psychological treatment, whereas if left untreated only about 1 in 3 cases improves (Carr, 2009). The average effect size from these meta-analyses was .77, indicating that the average treated case fared better than 78% of control group cases. This large effect size associated with the psychological treatment of children is similar to those obtained in meta-analyses of adult psychotherapy outcome studies. However, not all cases are equally likely to respond to treatment. Some of the more important variables that influence the degree to which cases are likely to respond to treatment are presented in Table 3.11. This list is based on reviews of the child psychotherapy and the family therapy process and treatment outcome literature (Carr, 2009; Fonagy et al., 2002; Weisz & Kazdin, 2010; Weisz & Weiss, 1993). From Table 3.11 the following conclusions of relevance to clinical practice may be drawn.

Table 3.11 Factors influencing the outcome of psychological treatment of children

Domain	*Variable*	*Good treatment response*	*Poor treatment response*
	Diagnosis	Internalizing and externalizing disorders	Pervasive developmental disorders
	Co-morbidity	Single diagnosis	Co-morbid

Child			diagnoses
	Severity	Mild problems	Severe problems
	Chronicity	Later age of onset and briefer duration	Chronic cases with early onset
	Age	Younger cases	Older cases
	Gender	Female	Male
Family	Parental adjustment	Good health and adjustment	Psychological or physical health problems
	Marital satisfaction	Marital satisfaction	Marital discord
	Family functioning	Flexible family functioning	Family disorganization
	Father absence	Father is involved	Father is not involved
	Socio-economic status	High socio-economic status	Low socio-economic status
Professional network	Agency involvement	Single agency involvement	Multi-agency involvement
	Coercive referral	Regular referral	Coercive referral
	Solicited referral	Solicited referral	Regular referral
Treatment system	Therapeutic alliance	Positive alliance	Poor alliance
	Therapeutic model	Cognitive-behavioural better than systemic, humanistic and psychodynamic models	–
	Therapeutic modality for internalizing behaviour problems	Individual, group and family modalities	–
	Therapeutic modality for externalizing and severe debilitating problems	Extensive family involvement	Individual or group formats
	Therapy duration	10 sessions and booster sessions	Less than 10 sessions without follow-up
	Therapist commitment to the model	Therapist is committed to the model	Therapist is not committed to the model

	Treatment manuals	Flexible use of manualized treatments	Rigid use of treatment manuals or non-manualized therapies
Evaluation system	Outcome measure	Specific measures of goal attainment	General measures
	Outcome rater	Independent observers, therapists and parents	Children receiving treatment, their peers and their teachers

Note: Information in this table is based on data reviewed in Carr, 2009; Fonagy et al., 2002; Weisz & Kazdin, 2010; Weisz & Weiss, 1993.

Child characteristics. Diagnosis, co-morbidity, severity, chronicity and the age and gender of the child all affect response to treatment. Cases where the principal diagnosis is a pervasive developmental disorder show less improvement than those characterized by internalizing and externalizing disorders. The presence of co-morbidity and severe problems is also associated with a poorer response to treatment. Cases with a later age of onset and briefer duration show greater improvement than chronic cases with early onset. Younger cases show greater improvement than older cases and girls show greater improvement than boys.

Family factors. Parental mental health, family dysfunction, marital discord and father absence all influence the degree to which cases respond to treatment. Cases in which parents have psychological or physical health problems or criminal involvement show less improvement than cases without these difficulties. Cases characterized by marital discord and severe family disorganization show less improvement than cases where these difficulties are absent. Cases where the father is not involved in the child's life or in the child's treatment show less improvement than cases where the father is involved, and these cases, like those where the family is from a lower socio-economic group, are more likely to drop out of therapy.

Professional network and referral system. Cases where many agencies and professionals are involved show less improvement than cases where only one agency or professional is involved. This is because cases with severe problems tend to be involved with multiple agencies and because multiple agencies often have co-ordination problems. Cases referred from a coercive referral source such as a child protection agency or probation service are more likely to drop out of treatment. This is usually because treatment is construed as a punitive rather than a supportive experience. Cases which are referred for treatment rather than solicited through newspaper advertisements for a treatment study show less improvement.

This is because solicited cases are more motivated to engage in treatment and often have less severe problems.

Treatment system. Cases where there is a positive therapeutic alliance characterized by warmth, empathy and positive regard show more improvement than cases where there is a poor alliance. Greater improvement occurs when the therapist is committed to the model. Interventions based on systemic, cognitive-behavioural and psychodynamic models are all associated with improvement. Overall, behavioural therapies are marginally more effective than other types of interventions. But many effective behaviour therapy programmes include extensive family involvement and a sensitivity to problems and strengths of family systems and their relationship to children's difficulties. For specific problems, specific techniques are associated with greater improvement. Individual, group and family modalities are effective formats for internalizing behaviour problems. For externalizing problems, pre-school problems, pervasive developmental disorders and psychoses, a treatment format that includes extensive family involvement is more effective than programmes which rely exclusively on individual or group formats. Most improvement is made rapidly in the first 10 sessions, and while improvement continues beyond this, it is at a far slower rate. Occasional follow-up review sessions prevent relapse particularly with externalizing behaviour problems. Greater improvement occurs when therapists flexibly use clearly articulated manualized treatments rather than rigidly adhering to treatment manuals or using non-manualized therapies.

Evaluation system. Greater improvement is detected by specific measures of goal attainment compared with general measures of improved functioning. Greater improvement is detected by independent observers, therapists and parents compared with children receiving treatment, their peers and their teachers.

Summary

Currently DSM-5 and ICD-10 classification systems are used in the US and Europe, respectively, to facilitate clinical practice, communication and research. In DSM-5 and ICD-10 the number of conditions listed and the organization of these into groups are not the same, although some attempt at harmonization is expected with the publication of ICD-11.

The Clinical Division of the British Psychological Society proposed that DSM and ICD are flawed at a scientific level, and also have a negative impact on service users. At a scientific level they lack reliability, validity and clinical utility and over-emphasize biological factors at the expense of contextual factors. They also lack sensitivity to cultural and other types of diversity. With regard to their negative impact on clients they lead to discrimination, social exclusion, stigmatization, disempowerment and over-reliance on medication. In the US, Allen Frances has criticized DSM-5 for medicalizing normal behaviour to provide financial gain for the profession of psychiatry and pharmaceutical companies. The limited reliability, validity and utility of ICD and DSM systems are due to the fact that most childhood psychological difficulties occur within the population as normally distributed dimensional characteristics or as complex interactional problems involving children and members of their social networks or combinations of both. Dimensional assessment systems such as ASEBA or family therapy–based systemic approaches to conceptualizing childhood problems are alternatives to categorical diagnostic systems. For young children DC: 0–3R offers a developmentally relevant alternative to ICD and DSM systems. RDoC provides a dimensional framework for future research in developmental psychopathology. In westernized countries, in any 3–6 month period about 1 in 4 children meets the diagnostic criteria for a psychological disorder. Prevalence rates for different disorders vary with gender and age. Co-morbidity rates for conduct disorder, attention deficit hyperactivity disorder, depression and anxiety disorders in community samples range from 10–20%, and rates in clinical samples are far higher. From childhood to adolescence there is an increase in rates of depression, panic disorder, agoraphobia and substance use disorders, and a decrease in rates of separation anxiety disorder and attention deficit hyperactivity disorder. Meta-analyses of treatment outcome studies show that about 2 out of 3 young people improve as a result of psychological treatment, compared with about 1 in 3 untreated cases. A variety of client, therapist, treatment and professional network variables effect outcome.

Exercise 3.1

Work in groups of three.

- Use the data in Table 3.8 to draw six graphs. Put age on the x-axis and prevalence rate on the y-axis. Use a solid line for males and a dotted line for females. Inspect the six graphs.
- Write down some hypotheses to account for the difference in patterning of prevalence rates of psychological problems for boys and girls at different ages as depicted in your graphs.

Further reading

American Psychiatric Association (APA) (2013). *Diagnostic and Statistical Manual of Mental Disorders, fifth edition (DSM-5).* Arlington, VA: American Psychiatric Association.

Carr, A. (2009). *What works with children, adolescents and adults? A review of research on the effectiveness of psychotherapy.* London: Routledge.

World Health Organization (WHO) (1996). *Multi axial classification of child and adolescent psychiatric disorders: ICD-10* *classification of mental and behavioural disorders in children and adolescents*. Cambridge: Cambridge University Press.

Zero to Three. (2005). *Diagnostic classification of mental health and developmental disorders in infancy and early childhood, revised edition (DC: 0–3R)*. Washington, DC: Zero to Three Press.

Websites

DC:0–3R: http://www.zerotothree.org/child-development/early-childhood-mental-health/dc-0-3r-multi-axial-system.html

DSM-5: http://www.dsm5.org/Pages/Default.aspx and http://www.psychiatry.org/dsm5

ICD: http://www.who.int/classifications/icd/en/ and http://www.who.int/classifications/icd/en/bluebook.pdf

RDoC: http://www.nimh.nih.gov/research-priorities/rdoc/index.shtml

Chapter 4

The consultation process and intake interviews

The framework set out in Figure 4.1 outlines the stages of consultation from the initial receiving of a referral letter to the point where the case is closed. In the first stage a plan for conducting the intake interview is made using the framework in Figure 4.2. The second stage is concerned with the processes of engagement, alliance building, assessment and formulation. In the third stage, the focus is on case management, the therapeutic contract and the management of resistance. In the final stage, disengagement or re-contracting for further intervention occurs. In this chapter, principles of good clinical practice for each of these stages of the consultation process will be given.

Stages of the consultation process

In clinical child psychology, consultation is usefully conceptualized as a developmental and recursive process. At each developmental stage, key tasks must be completed before progression to the next stage. Failure to complete the tasks of a given stage before progressing to the next stage may jeopardize the consultation process. For example, attempting to conduct an assessment without first contracting for assessment may lead to co-operation difficulties if the child or parents find the assessment procedures arduous. Consultation is a recursive process insofar as it is possible to move from the final stage of one episode of consultation to the first stage of the next. What follows is a description of the stages of consultation and the tasks entailed by each.

Stage 1: planning

In the first stage of consultation the main tasks are to plan whom to invite to the first session or series of sessions and what to ask them. If there is confusion about whom to invite, a network analysis may be conducted. In planning an agenda, a routine intake interview and a core test battery may be supplemented by questions and tests which take account of the specific features of the case.

Network analysis

To make a plan about whom to invite to the sessions, the psychologist must find out from the referral letter or through telephone contact with the referrer who is involved with the problem and tentatively establish what roles they play with respect to it. With some cases this will be straightforward. For example, where parents are concerned about a child's enuresis, it may be sufficient to invite the child and the parents. In other cases, where school, hospital staff or social services are most concerned about the case, the decision about whom to invite to the first interview is less straightforward. In complex cases it is particularly important to analyse network roles accurately before deciding whom to invite to the first session. Most network members fall into one or more of the following categories:

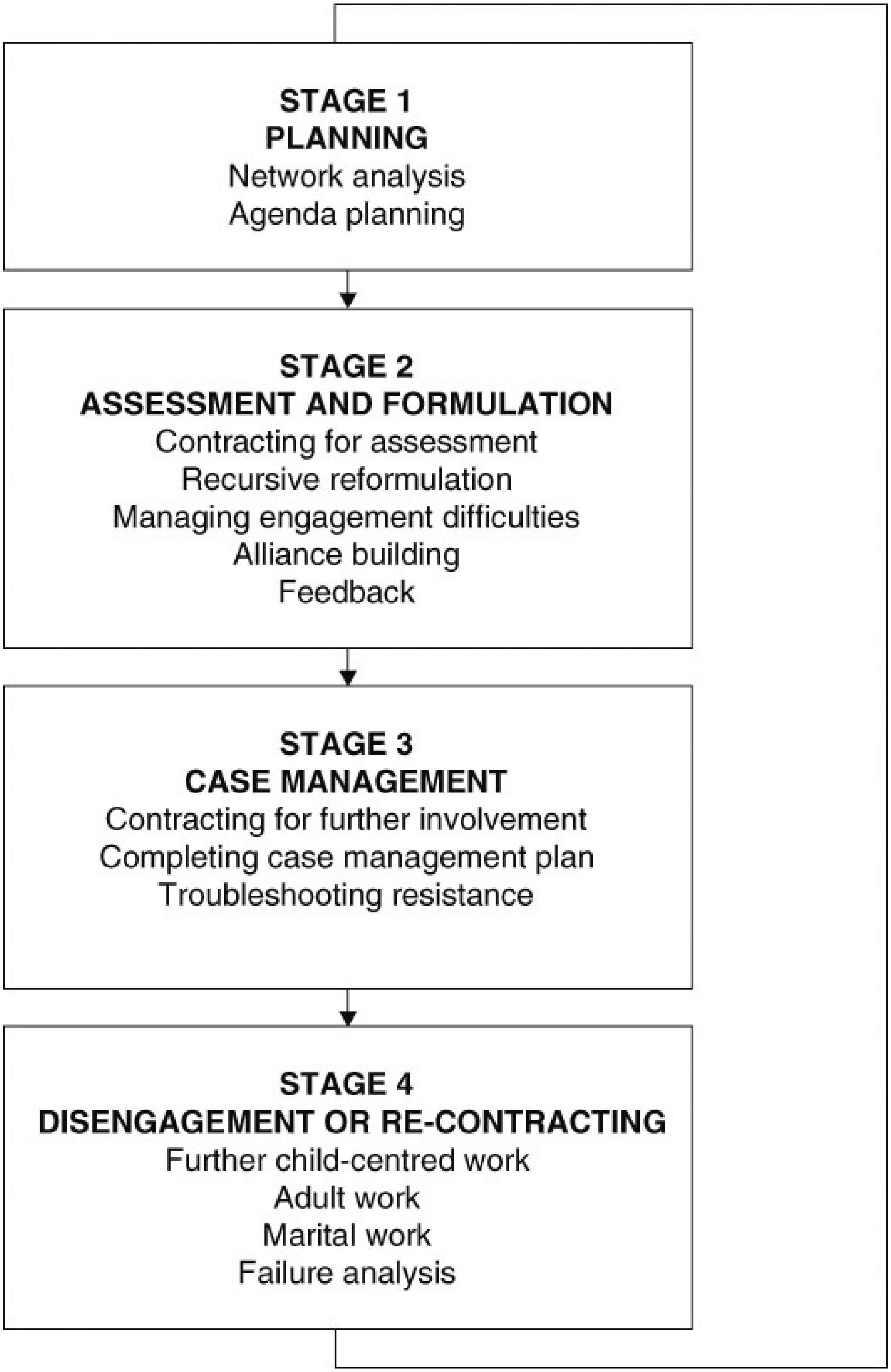
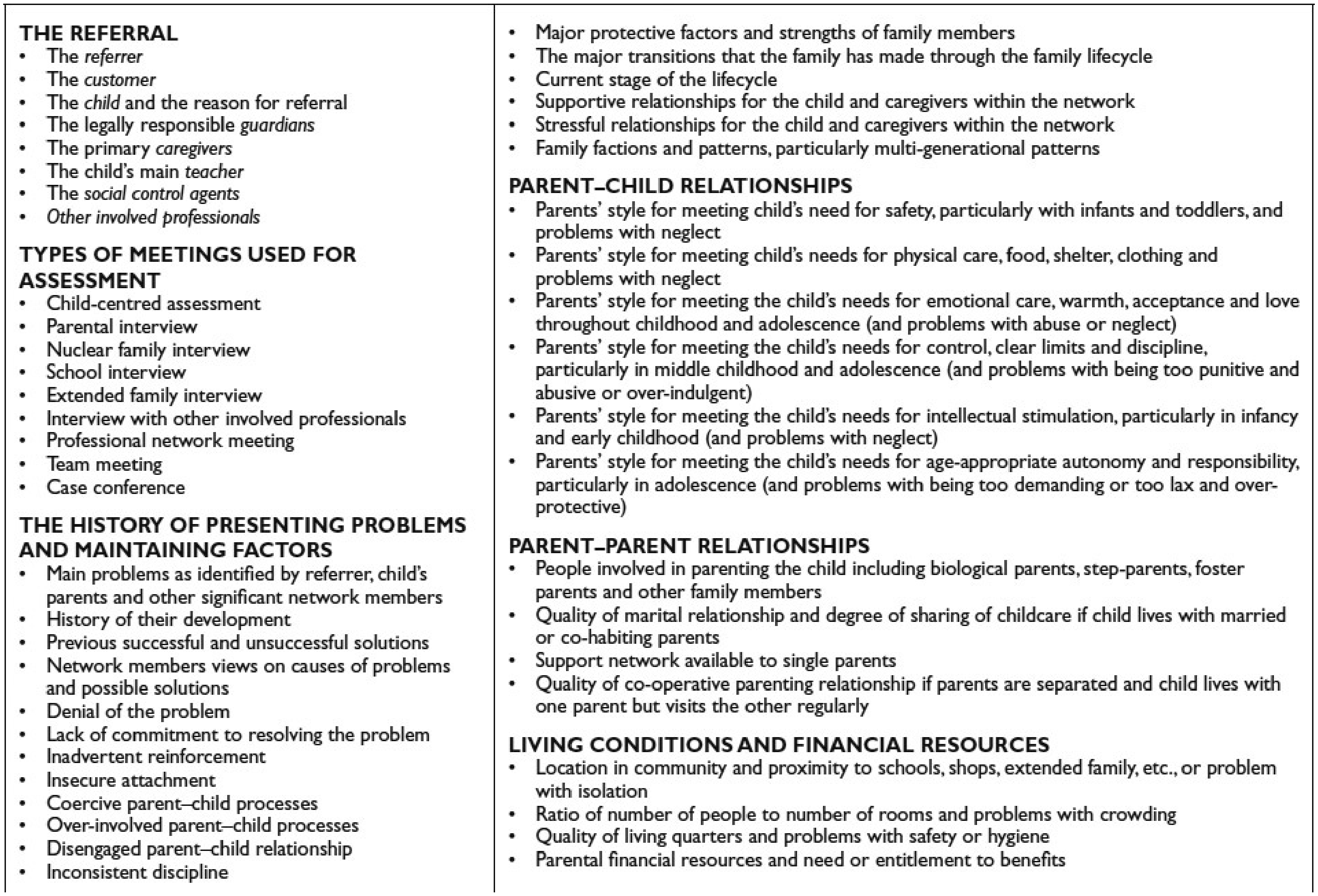


Figure 4.1 Stages of the consultation process

- the *referrer*, to whom correspondence about the case should be sent
- the *customer*, who is most concerned that the referral be made
- the *child* or children with the problem
- the legally responsible *guardians*, who are usually the parents but may be a social

worker or other representative of the state

- the primary *caregivers*, who are usually the parents but may be foster parents, residential childcare staff or nursing staff
- the child's main *teacher*
- the *social control agents*, such as social workers or probation officers
- *other involved professionals*, including the family doctor, the paediatrician, the school nurse, the parent's psychiatrist, etc.



THE REFERRAL

- The *referrer*
- The *customer*
- The *child* and the reason for referral
- The legally responsible *guardians*
- The primary *caregivers*
- The child's main *teacher*
- The *social control agents*
- *Other involved professionals*

TYPES OF MEETINGS USED FOR ASSESSMENT

- Child-centred assessment
- Parental interview
- Nuclear family interview
- School interview
- Extended family interview
- Interview with other involved professionals
- Professional network meeting
- Team meeting
- Case conference

THE HISTORY OF PRESENTING PROBLEMS AND MAINTAINING FACTORS

- Main problems as identified by referrer, child's parents and other significant network members
- History of their development
- Previous successful and unsuccessful solutions
- Network members views on causes of problems and possible solutions
- Denial of the problem
- Lack of commitment to resolving the problem
- Inadvertent reinforcement
- Insecure attachment
- Coercive parent–child processes
- Over-involved parent–child processes
- Disengaged parent–child relationship
- Inconsistent discipline
- Major protective factors and strengths of family members
- The major transitions that the family has made through the family lifecycle
- Current stage of the lifecycle
- Supportive relationships for the child and caregivers within the network
- Stressful relationships for the child and caregivers within the network
- Family factions and patterns, particularly multi-generational patterns

PARENT–CHILD RELATIONSHIPS

- Parents' style for meeting child's need for safety, particularly with infants and toddlers, and problems with neglect
- Parents' style for meeting child's needs for physical care, food, shelter, clothing and problems with neglect
- Parents' style for meeting the child's needs for emotional care, warmth, acceptance and love throughout childhood and adolescence (and problems with abuse or neglect)
- Parents' style for meeting the child's needs for control, clear limits and discipline, particularly in middle childhood and adolescence (and problems with being too punitive and abusive or over-indulgent)
- Parents' style for meeting the child's needs for intellectual stimulation, particularly in infancy and early childhood (and problems with neglect)
- Parents' style for meeting the child's needs for age-appropriate autonomy and responsibility, particularly in adolescence (and problems with being too demanding or too lax and over-protective)

PARENT–PARENT RELATIONSHIPS

- People involved in parenting the child including biological parents, step-parents, foster parents and other family members
- Quality of marital relationship and degree of sharing of childcare if child lives with married or co-habiting parents
- Support network available to single parents
- Quality of co-operative parenting relationship if parents are separated and child lives with one parent but visits the other regularly

LIVING CONDITIONS AND FINANCIAL RESOURCES

- Location in community and proximity to schools, shops, extended family, etc., or problem with isolation
- Ratio of number of people to number of rooms and problems with crowding
- Quality of living quarters and problems with safety or hygiene
- Parental financial resources and need or entitlement to benefits

- Confused communication
- Triangulation
- Chaotic family organization
- Father absence
- Marital discord

CHILD DEVELOPMENTAL HISTORY

The first 5 years

- Particular strengths shown in first 5 years
- Pregnancy and birth problems
- Physical health and early childhood illnesses
- Feeding and eating patterns and problems
- Sleeping pattern, age when first slept through night and sleep problems
- Physical growth and problems with height or weight being below third centile
- Sensory and motor development and delays in motor development
- Bowel and bladder control, age when toilet training was complete, and soiling or wetting problems
- Temperament and attachment problems
- Language development and language delays
- Cognitive development and problems with sustaining attention and solving puzzles and games
- Social development, adjustment to pre-school and peer problems
- Emotional regulation and problems with persistent crying
- Anger control and problems with tantrums

Middle childhood, 6–12 years

- Particular strengths shown in middle childhood
- Physical health and illnesses during middle childhood
- Academic performance and cognitive development and attainment problems
- Internalization of rules and moral development during middle childhood and conduct problems
- Emotional regulation, anxiety and depression in middle childhood
- Making and maintaining friendships and peer problems during middle childhood

Adolescence, 12–18 years

- Physical health and illnesses during adolescence
- Academic performance and cognitive development in adolescence and problems with schoolwork
- Rule-following in adolescence and conduct problems at home, at school or in the community
- Adjustment within the peer group in adolescence and problems with making and maintaining friendships or membership of deviant peer group
- Emotional regulation, anxiety and depression in adolescence
- Eating pattern in adolescence and indications of anorexia or bulimia
- Experimentation with or misuse of drugs and alcohol
- Psychotic features in adolescence

FAMILY DEVELOPMENTAL HISTORY AND GENOGRAM

- Current household membership
- Extended family membership
- Other network members
- Identifying information such as names, ages, occupations and locations of important family and network members
- Major illnesses and psychosocial problems including hospitalizations, physical and psychological problems and criminality

INVOLVEMENT WITH OTHER PROFESSIONALS AND AGENCIES

- List of other involved agencies
- Duration of involvement
- Reasons for involvement

SCHOOL CONTACT

- Current and past academic performance (including standardized test scores if available)
- Current and past performance at sports, drama and other non-academic pursuits
- Current and past relationships with teachers
- Current and past relationships with peers
- Teacher's role in the network
- Teacher's beliefs about the problem and solution
- Teacher's prediction about how the case will work out
- Availability of remedial tuition
- Degree of parent–teacher co-operation
- Amount of child–teacher contact
- Expectations for good conduct
- Expectations for academic attainment
- Pupil involvement in school affairs
- Use of praise-based motivation

OBSERVATIONS OF CHILD AND CHILD'S VIEWPOINT

- Child's account of problem, coping strategies and defences
- Child's account of parents' and teacher's views of problem
- Child's genogram and lifeline
- Child's perception of relationships with parents and teachers
- Child's cognitive and academic strengths and weaknesses
- Child's self-esteem, locus of control, self-efficacy and attributional style
- Child's capacity to make and maintain friendships and social problem-solving skills
- Child's account of situations requiring protective action (abuse or suicidal intent)
- The child's wishes for the future
- Child's account of situations requiring major changes in living arrangements (parental custody or foster care)
- Child's capacity to engage in individual group or family therapy and to respond to behavioural programmes

FORMULATION

- Predisposing factors
- Precipitating factors
- Maintaining factors
- Protective factors

POSSIBLE INTERVENTION OPTIONS

- Take no immediate action
- Re-assess periodically
- Refer to another professional within the team for consultation
- Refer to another professional or residential facility outside the team
- Offer low-intensity focal intervention to the child, parents, family or school
- Offer high-intensity multi-systemic intervention alone or with other professionals or residential facility to the child, parents, family or school

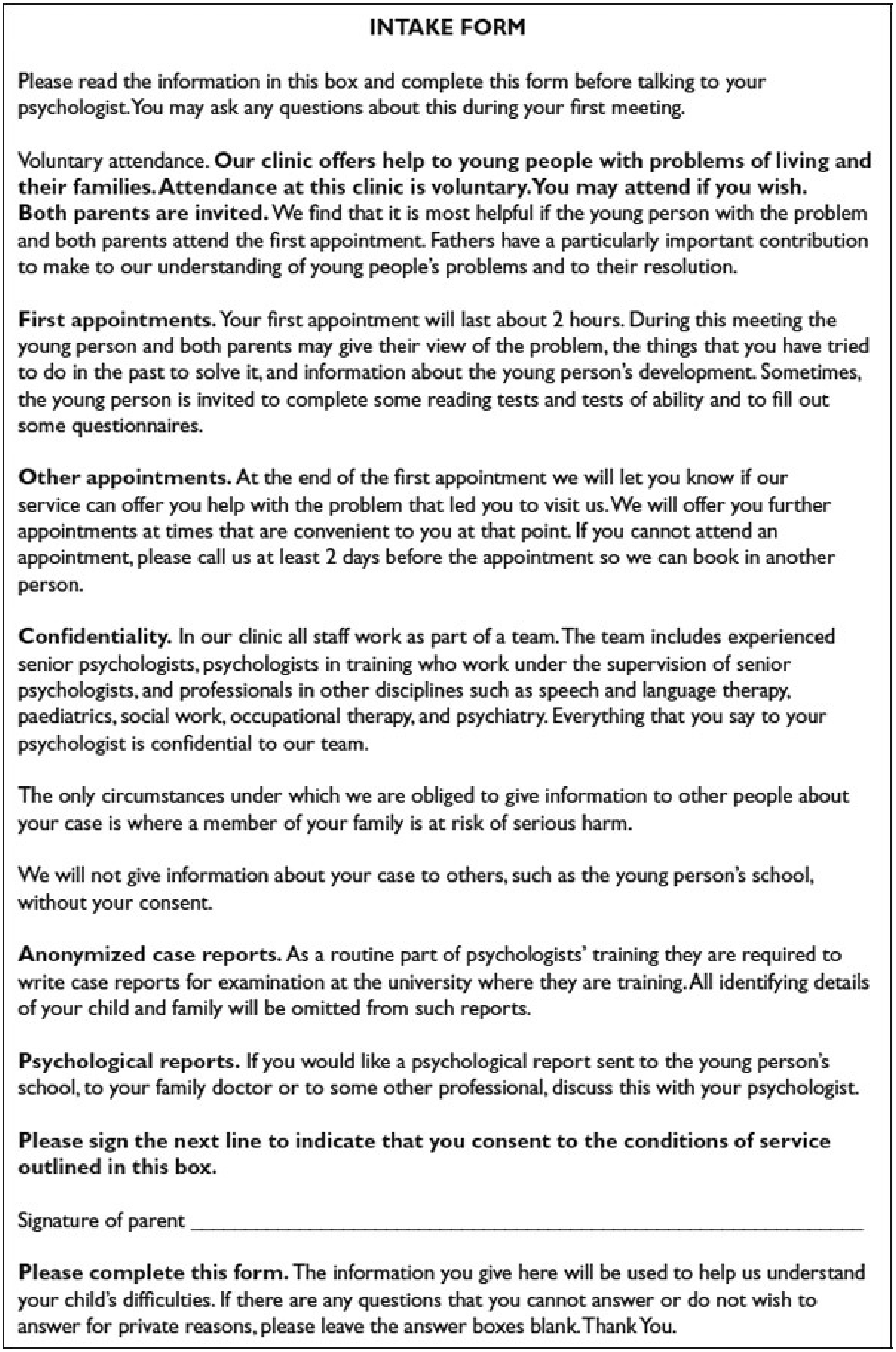
Figure 4.2 Framework for planning the agenda for assessment interviews

Certain key network members constitute the minimum sufficient network necessary for effective case management. These include the customer, the legal guardians, the caregivers and the referred child. Psychologists and members of their clinical teams cannot work effectively without engaging with these key network members. Ideally, all members of the minimum sufficient network should be invited to an intake meeting. If this is not possible, then individual meetings or telephone calls may be used to connect with these key members of the network. Where psychologists are working as part of multi-disciplinary teams, often the main customer for a psychological assessment is another team member. In such instances it is often useful to meet with the parents of the child and the referring team member briefly to clarify the reason for the referral and the implications of the psychologist's report for the type of service the child and his family will receive once the assessment is completed. Failure to convene such meetings often results in confusion or co-operation difficulties. Other common engagement difficulties have been described elsewhere (Carr, 2012).

Often the assessment process is conducted over a number of sessions. To develop a thorough understanding of the presenting problems and related issues a number of different types of assessment meetings may be conducted. These may include some or all the following depending upon the case:

- child-centred assessment interview and testing session
- parental interviews
- nuclear family interviews
- school interviews
- extended family interviews
- interviews with other involved professionals
- clinical team meetings
- professional network meetings
- statutory case conferences.

Following an intake interview, some combination of these various types of meetings will typically be planned to achieve certain assessment goals. It is important to distinguish between these different types of meetings and to keep records of which network members attended particular meetings, the reasons for their attendance, the information obtained and the case management decisions made particularly in statutory cases. Record keeping and report writing will be discussed fully in Chapter 5. Written or verbal consent must be obtained from parents or guardians when other involved professionals or teachers are to be contacted as part of the assessment procedure. In the child information form set out in Figure 4.3, requests for consent to contact the child's teacher, family doctor and other involved professionals have been included. This form may be sent to literate parents to complete before the intake interview or it may be completed as part of routine intake interviewing procedures.



INTAKE FORM

Please read the information in this box and complete this form before talking to your psychologist. You may ask any questions about this during your first meeting.

Voluntary attendance. **Our clinic offers help to young people with problems of living and their families. Attendance at this clinic is voluntary. You may attend if you wish.**
Both parents are invited. We find that it is most helpful if the young person with the problem and both parents attend the first appointment. Fathers have a particularly important contribution to make to our understanding of young people's problems and to their resolution.

First appointments. Your first appointment will last about 2 hours. During this meeting the young person and both parents may give their view of the problem, the things that you have tried to do in the past to solve it, and information about the young person's development. Sometimes, the young person is invited to complete some reading tests and tests of ability and to fill out some questionnaires.

Other appointments. At the end of the first appointment we will let you know if our service can offer you help with the problem that led you to visit us. We will offer you further appointments at times that are convenient to you at that point. If you cannot attend an appointment, please call us at least 2 days before the appointment so we can book in another person.

Confidentiality. In our clinic all staff work as part of a team. The team includes experienced senior psychologists, psychologists in training who work under the supervision of senior psychologists, and professionals in other disciplines such as speech and language therapy, paediatrics, social work, occupational therapy, and psychiatry. Everything that you say to your psychologist is confidential to our team.

The only circumstances under which we are obliged to give information to other people about your case is where a member of your family is at risk of serious harm.

We will not give information about your case to others, such as the young person's school, without your consent.

Anonymized case reports. As a routine part of psychologists' training they are required to write case reports for examination at the university where they are training. All identifying details of your child and family will be omitted from such reports.

Psychological reports. If you would like a psychological report sent to the young person's school, to your family doctor or to some other professional, discuss this with your psychologist.

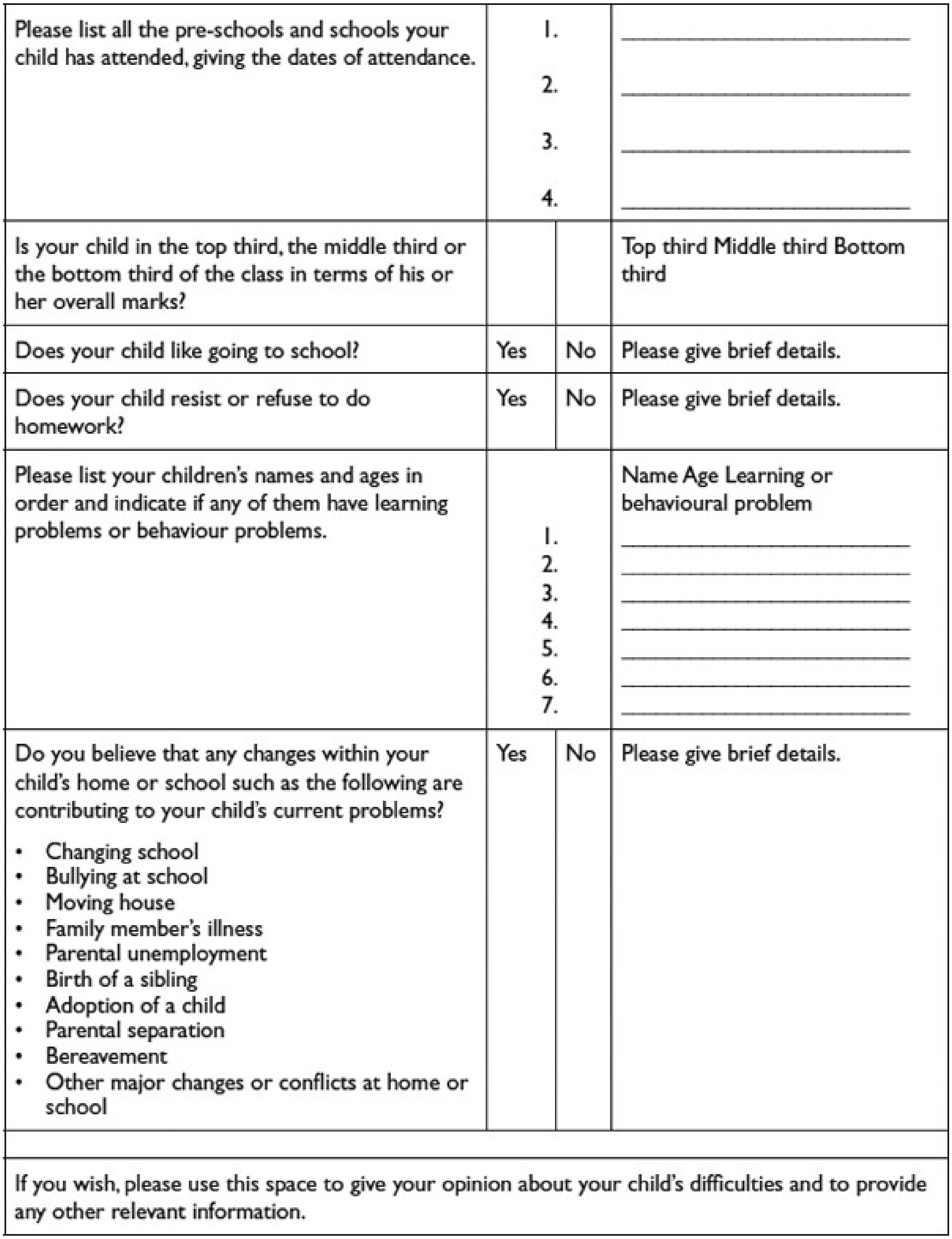
Please sign the next line to indicate that you consent to the conditions of service outlined in this box.

Signature of parent ____

Please complete this form. The information you give here will be used to help us understand your child's difficulties. If there are any questions that you cannot answer or do not wish to answer for private reasons, please leave the answer boxes blank. Thank You.

Please put your name and address and telephone number in the box opposite.			
What is your child's name?			
What is your child's age?			
What is your child's date of birth?			
What is your main concern about your child's behaviour and/or schoolwork?			
Please name anyone outside the family who is particularly concerned about your child's behaviour or schoolwork, such as a teacher, social worker or family doctor.			
Who is your family doctor?			
May I contact your family doctor?	Yes	No	Please sign, if you give your consent. I ______________________ consent for _______________ to contact my family doctor.
What is your child's present school and class, and what is the name of your child's main teacher?			
May I contact your child's main teacher?	Yes	No	Please sign, if you give your consent. I ______________________ consent for _______________ to contact my child's teacher.
Can you please send me a recent end-of-term school report?	Yes	No	If you have not given it to me already, please enclose this when returning the questionnaire.
Was your child assessed by a psychologist, social worker or doctor before?	Yes	No	Please give brief details.
If a report was prepared, may I contact this person and ask them to send it to me?	Yes	No	Please sign, if you give your consent. I ____________________ consent for_________________ to contact ___________________ ____________________
Has your child received treatment or educational support for his or her problems?	Yes	No	Please give brief details.
Has your child language problems?	Yes	No	Please give brief details.

Has your child problems with reading or other schoolwork?	Yes	No	Please give brief details.
Is your child very disobedient or disruptive at home?	Yes	No	Please give brief details.
Is your child very disobedient or disruptive at school?	Yes	No	Please give brief details.
Is your child sad, frightened, withdrawn or upset at home?	Yes	No	Please give brief details.
Is your child sad, frightened, withdrawn or upset at school?	Yes	No	Please give brief details.
Has your child sleeping or feeding problems?	Yes	No	Please give brief details.
Has your child toileting problems?	Yes	No	Please give brief details.
Has your child a medical condition, such as one of these listed, that caused particular stress? • Headaches • Stomach aches • Asthma • Head injury • Other	Yes	No	Please give brief details.
Have any of the child's relatives (including yourself or the child's other parent) got language problems, reading problems, behaviour problems, mood problems or medical problems?	Yes	No	Please give brief details.
Was the pregnancy with this child normal?	Yes	No	Please give brief details.
Was the delivery normal?	Yes	No	Please give brief details.
Has your child had any major illnesses? If so, please give details.	Yes	No	Please give brief details.
Has your child's hearing always been normal?	Yes	No	Please give brief details.
Does your child wear glasses?	Yes	No	Please give brief details.
In your opinion, was the development of your child's ability to walk, run, jump and so forth normal?	Yes	No	Please give brief details.
Is your child left-handed?	Yes	No	Please give brief details.
In your opinion, was your child's language development normal?	Yes	No	Please give brief details.
Has your child always been able to make friends?	Yes	No	Please give brief details.



Please list all the pre-schools and schools your child has attended, giving the dates of attendance.	1. 2. 3. 4.		____ ____ ____ ____
Is your child in the top third, the middle third or the bottom third of the class in terms of his or her overall marks?			Top third Middle third Bottom third
Does your child like going to school?	Yes	No	Please give brief details.
Does your child resist or refuse to do homework?	Yes	No	Please give brief details.
Please list your children's names and ages in order and indicate if any of them have learning problems or behaviour problems.	1. 2. 3. 4. 5. 6. 7.		Name Age Learning or behavioural problem ____ ____ ____ ____ ____ ____ ____
Do you believe that any changes within your child's home or school such as the following are contributing to your child's current problems? • Changing school • Bullying at school • Moving house • Family member's illness • Parental unemployment • Birth of a sibling • Adoption of a child • Parental separation • Bereavement • Other major changes or conflicts at home or school	Yes	No	Please give brief details.
If you wish, please use this space to give your opinion about your child's difficulties and to provide any other relevant information.			

Figure 4.3 Intake form

Agenda planning

Planning what questions to ask or what investigative procedures to use in a preliminary consultation session and subsequent assessment sessions will depend upon the problem posed in the referring letter, the preliminary hypothesis that the clinician has about the case and the routine assessment procedures typically used by the psychologist in such cases.

If the referrer's concerns are vague, much time may be saved by phoning the referrer and requesting clarification. In short, by asking 'What question do you want answered?' or 'What problem do you want solved?'

For example, a family doctor who initially asked for a psychological assessment for a 9 year old boy (Ronny Boyle) during a clarification phone call indicated that there were three main problems: (1) encopresis, (2) school attainment problems and (3) home-based behavioural difficulties. An assessment of all three was required along with recommendations for the school on the management of the scholastic difficulties and behavioural family therapy for the other two problems. Clinical psychologists have a responsibility to educate those that use their services about types of cases that may be referred to them and the types of assessment, treatment and case management services that they offer. Clarifying referral questions is one way of educating referrers about these issues.

Agendas for parent and family interviews. It is important to acknowledge that psychologists do not typically begin intake interviews with a completely open mind about the presenting problems. The referrer's question, along with the information provided by the referrer and in the intake information form (contained in Figure 4.3), will give rise to certain hunches or hypotheses. These are typically informed by experience with similar cases and knowledge of the relevant literature. The more explicit these hypotheses are made the better, since these hypotheses will inform some of the lines of questioning followed in a preliminary interview or some of the tests used in a preliminary consultation session.

For all problems, it is important to include in preliminary hypotheses or formulations and related lines of questioning a consideration of predisposing, precipitating, maintaining and protective factors. Literature about such factors has been reviewed in Chapter 2. Predisposing, precipitating, maintaining and protective factors to consider in all cases are summarized in Figure 2.1. Specific factors to consider for particular problems are given in Chapters 6–24. Predisposing factors are those biological or psychological features of the child or negative aspects of the early parent–child relationship or family situation that have rendered the child or members of the network vulnerable to developing either the problem behaviour or the behaviours which maintain it. Precipitating factors are those events that have led to the onset of the problem. These may take the form of acute life stresses, illness or injury, and transitions in the individual or family lifecycle. Maintaining factors are those biological and psychological characteristics of the child or parents along with patterns of interaction within the family, the treatment system or the wider social network which allow the problem to persist. Protective factors are those biological and psychological characteristics of the child or parents along with patterns of interaction within the family, the treatment system or the wider social network which prevent problems from deteriorating and which have positive implications for response to treatment and prognosis.

In the case of Ronny Boyle, one hypothesis was that his reading difficulties arose from a genetic predisposition of the type which typically underpins specific reading difficulties and that it was maintained by a lack of adequate recognition and remediation. A second hypothesis was that conflictual parent–child and teacher–child relationships predisposed Ronny to developing tantrums and encopresis. For the encopresis, there may also have been a predisposing organic factor. For both of these problems, it was assumed that specific life stresses precipitated their onset or exacerbation. With respect to maintaining factors, the hypothesis was that the parents and teacher were probably engaged in a pattern of interaction with Ronny that inadvertently reinforced all three problems. Also, academic failure and related self-esteem problems, it was guessed, might also maintain the behaviour problems. A psychometric assessment of Ronny's abilities (of the type described in Chapter 8) and interviews with the parents and teachers largely supported these hypotheses.

History of the problem. The opening item on the agenda of the parent interview, once a contract for assessment has been established, is usually the history of the presenting problems. This typically involves questions about the nature, frequency and intensity of the problems; previous successful and unsuccessful solutions to these problems; and family members' views on the causes of these problems and possible solutions that they suspect may be fruitful to explore in the future. In listening to replies to these inquiries and requesting elaboration about the social context within which the problems have been occurring, particular attention should be paid to possible problem-maintaining interaction patterns associated with any of the following processes, all of which have been described in Chapter 2:

- denial of the problem
- lack of commitment to resolving the problem
- inadvertent reinforcement
- insecure attachment
- coercive parent–child processes
- over-involved parent–child processes
- disengaged parent–child relationship
- inconsistent discipline
- confused communication
- triangulation
- chaotic family organization
- father absence
- marital discord.

Child developmental history. For inquiring about the child's development, it is useful to routinely employ a fairly comprehensive framework based on the material covered in Chapter 1. In inquiring about the first 5 years the following broad areas deserve consideration:

- particular strengths shown in first 5 years
- pregnancy and birth problems
- physical health and any early childhood illnesses
- feeding and eating patterns and problems
- sleeping pattern, age when first slept through night and sleep problems
- physical growth and any problems with height or weight being below third centile
- sensory and motor development and delays in motor development
- bowel and bladder control, age when toilet training was complete and soiling or wetting problems
- temperament, attachment and attachment problems
- language development and language disorders
- cognitive development and problems with sustaining attention, solving puzzles or playing games
- social development, adjustment to pre-school and attachment or peer problems
- emotional regulation and problems with persistent crying
- anger control and problems with tantrums.

With regard to the middle childhood period from 6–12 years, the following areas should be investigated in some detail when taking a developmental history:

- particular strengths shown in middle childhood
- physical health and illnesses during middle childhood
- academic performance and cognitive development and attainment problems
- internalization of rules and moral development during middle childhood and conduct problems
- emotional regulation, anxiety and depression in middle childhood
- making and maintaining friendships and peer problems during middle childhood.

Inquiries about development in adolescence should cover the following areas:

- physical health and illnesses during adolescence
- academic performance and cognitive development in adolescence and problems with schoolwork
- rule-following in adolescence and conduct problems at home, at school or in the community
- adjustment within the peer group in adolescence and problems with making and maintaining friendships or membership of deviant peer group
- emotional regulation, anxiety and depression in adolescence
- eating pattern in adolescence and indications of anorexia or bulimia

- experimentation with or abuse of drugs and alcohol
- psychotic features in adolescence.

Family development. In addition to a child developmental history it is important to include family development and interaction as part of the agenda for the intake interview. Information yielded by observations made during a family interview and interview material may be recorded in narrative form or as part of a genogram. Symbols for genogram construction are set out in Figure 4.4. Inquiries about family membership, structure and development should cover the following areas:

- current household membership
- extended family membership
- other network members
- identifying information such as names, ages, occupations and locations of important family and network members
- major illnesses and psychosocial problems including hospitalizations, physical and psychological problems and criminality
- major protective factors and strengths of family members
- the major transitions that the family has made through the family lifecycle
- current stage of the lifecycle
- supportive relationships for the child and caregivers within the network
- stressful relationships for the child and caregivers within the network
- family factions and triangulation patterns, particularly multi-generational patterns.

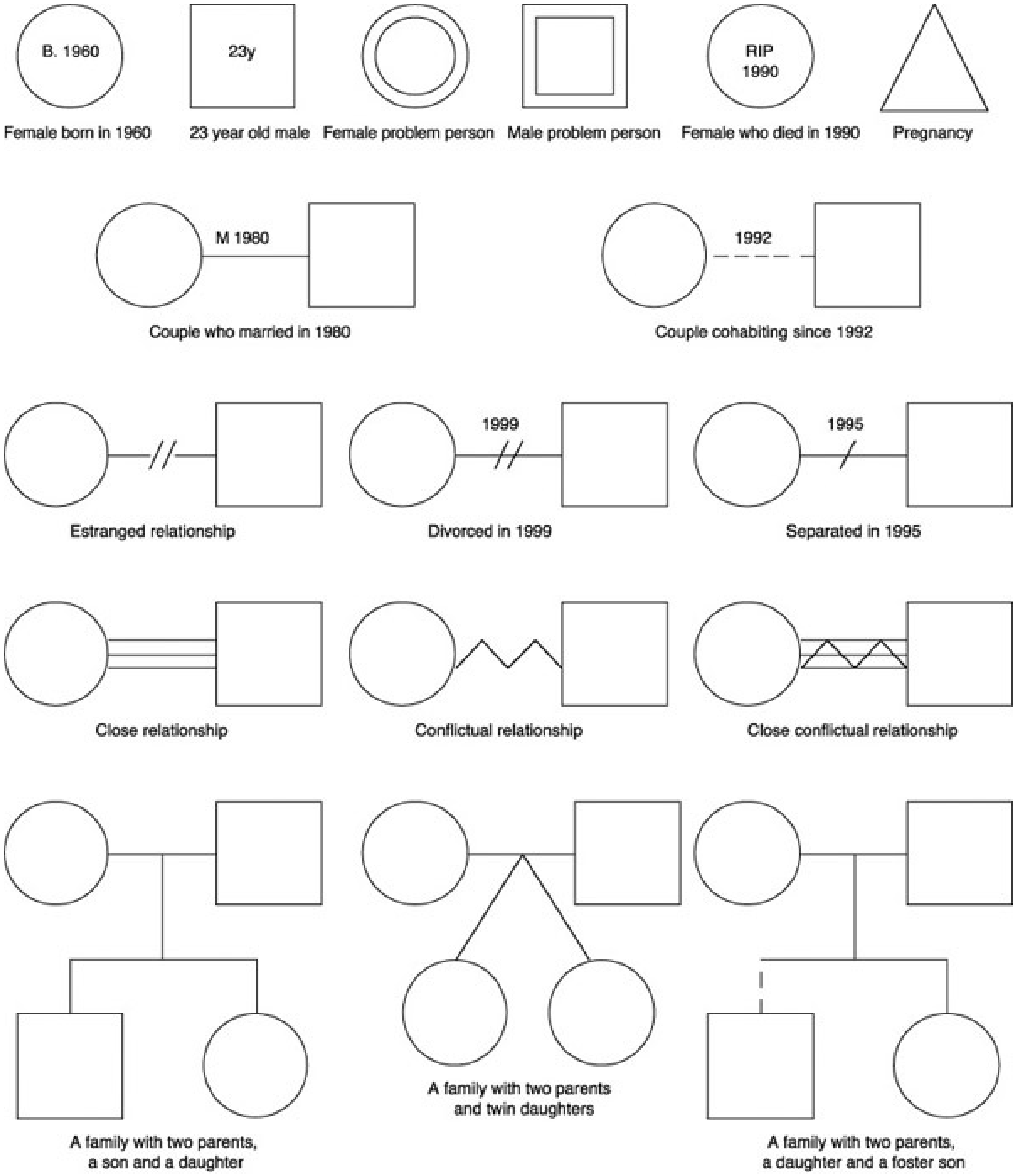


Figure 4.4 Genogram symbols

In observing and inquiring about parent–child relationships, the following points which have been discussed in Chapters 1 and 2, when relevant, should form part of the intake agenda:

- parents' style for meeting child's need for safety, particularly with infants and toddlers, and problems with neglect
- parents' style for meeting child's needs for physical care, food, shelter, clothing and problems with neglect
- parents' style for meeting the child's needs for emotional care, warmth, acceptance and

love throughout childhood and adolescence (and problems with abuse or neglect)
- parents' style for meeting the child's needs for control, clear limits and discipline, particularly in middle childhood and adolescence (and problems with being too punitive and abusive or over-indulgent)
- parents' style for meeting the child's needs for intellectual stimulation, particularly in infancy and early childhood (and problems with neglect)
- parents' style for meeting the child's needs for age-appropriate autonomy and responsibility, particularly in adolescence (and problems with being too demanding or too lax and over-protective).

A consideration of the relationships between parents and their capacity to jointly meet the child's needs should also be part of the family assessment agenda. The following points deserve routine exploration:

- people involved in parenting the child including biological parents, step-parents, foster parents and other family members
- quality of marital relationship and degree of sharing of childcare, if the child lives with married or co-habiting parents
- support network available to single parents
- quality of co-operative parenting relationship if parents are separated and the child lives with one parent but visits the other regularly.

The physical and social context of the family is a further issue for inclusion on the family assessment agenda. Some important issues requiring routine assessment include the following:

- location of the family in the community and proximity to schools, shops, extended family, etc. or problems with isolation
- ratio of number of people to number of rooms and problems with crowding
- quality of living quarters and problems with safety or hygiene
- parental financial resources and need or entitlement to benefits.

When working with multi-problem families, in which there is multi-agency involvement, it is critical to clarify the following points as part of the broader ecological assessment of the family:

- list of other involved agencies
- duration of involvement
- reasons for involvement.

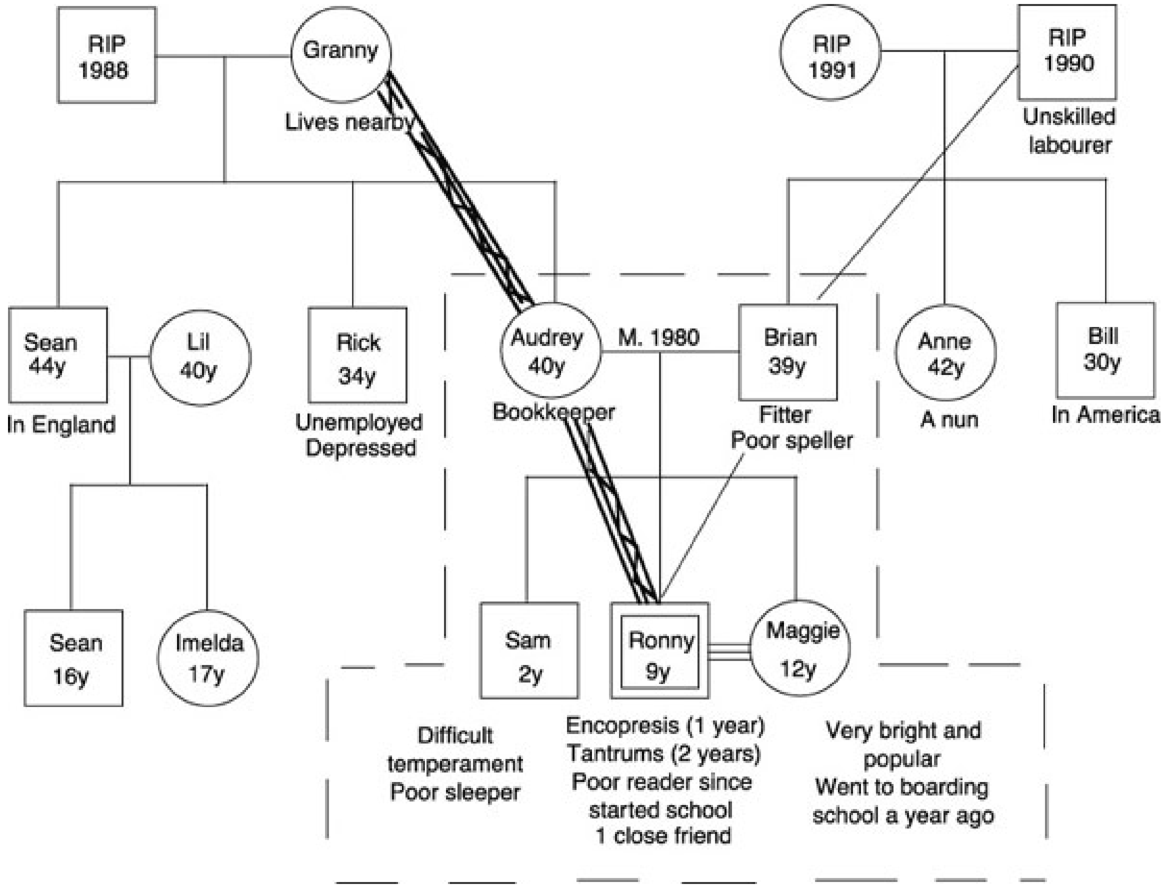


Figure 4.5 The Boyle genogram completed in 1994

The developmental interviewing framework presented here and summarized in Figure 4.2 is based on the material covered in Chapters 1 and 2. The framework outlines the content areas that are important to cover when conducting a routine child and family assessment and may serve as a template for interviewing parents and other members of the child's network.

An example of a genogram for Ronny Boyle based on a family interview is presented in Figure 4.5. From this case example, it is apparent that Ronny is a middle child living with his mother, father and siblings. His father, like Ronny, has a history of literacy problems. Ronny's tantrums date back 2 years to the birth of his brother, and his encopresis dates back a year to his older sister's departure to boarding school. This event was a major loss for Ronny because he has a close relationship with his sister. Ronny has a close conflictual relationship with his mother and a distant relationship with his father (a pattern which commonly maintains rather than resolves child behaviour problems), and these relationships between Ronny and his parents resemble the types of relationships that the parents had in their families of origin. Overall, the Boyles have experienced a considerable build-up of life stress in the 4 years prior to the referral. There have been two bereavements in the father's family of origin, the birth of a difficult temperament child and the older daughter's departure to boarding school. The stresses may have compromised the parents' capacity to manage Ronny's difficulties. This example illustrates the way genograms may offer a pictorial summary of significant individual developmental and family factors in complex cases. A fuller account of genogram construction is given in McGoldrick et al. (2008) and Carr (2012).

Agendas for child-centred interviews. In addition to parental or family interviews it is good practice to routinely conduct a child-centred assessment. The following are key areas to include in child-centred assessments:

- child's account of problem, coping strategies and defences
- child's response to parents' and teacher's views of problem
- child's genogram and lifeline
- child's perception of relationships with parents and teachers
- child's cognitive and academic strengths and weaknesses
- child's self-esteem, locus of control, self-efficacy and attributional style
- child's capacity to make and maintain friendships and social problem-solving skills
- child's account of situations requiring protective action (abuse or suicidal intent)
- child's account of situations requiring major changes in living arrangements (parental custody or foster care)
- child's wishes for the future
- child's capacity to engage in individual, group or family therapy and to respond to behavioural programmes.

It is usually more fruitful to conduct a child-centred assessment once the views of significant adults in the child's network are known, since it is then possible to ask the child about his or her responses to their parents' and teachers' views of the problem.

With pre-adolescent children, the emotional climate of the family as perceived by the child, and the child's response to significant life events that he or she mentions in giving a biographical account, may be assessed using the symbols presented in Figure 4.6. The child is introduced to the four faces that represent the emotions of happiness, sadness, anger, and worry or fear. A genogram may then be drawn with the child and inquiries made about who in the family is happiest, saddest, most angry and most worried. A wavy line may then be drawn, with one end reflecting birth and the other end reflecting the present moment. It may be divided into 1-year sections and the child asked about significant events that happened in each year. It is best to begin with the past year and work backwards, since recent events are more easily recalled. The child may be asked what type of feelings he or she experienced during the significant events and these may be recorded onto the lifeline.

In Figure 4.6, an example of Ronny Boyle's personal genogram and lifeline is given. From the genogram it is apparent that Ronny saw everyone in the family, except his sister who has left for boarding school, as experiencing negative emotions. He viewed himself and his mother as sad, his brother as worried and his father as angry. His lifeline shows that this was not always the case. His pre-school years were happy except when he went to hospital following a fall. However, once he started school he became sad, because no matter how hard he tried he could never read as well as the other children. He became convinced that he was stupid and it was this belief that made him feel sad. His brother, who didn’t sleep well and cried a lot, made his mother continually irritable, and Ronny became very angry. Then when his older sister, Maggie, went to boarding school about a year before the assessment, he became very sad. The lifeline is a succinct graphic representation of the child’s perception of his or her developmental history and may be routinely used in conjunction with the genogram to obtain children’s views of their life situation. In light of his lifeline and genogram, Ronny’s wishes were for his sister to visit home more often, for him to succeed in school and for his parents to be happier.

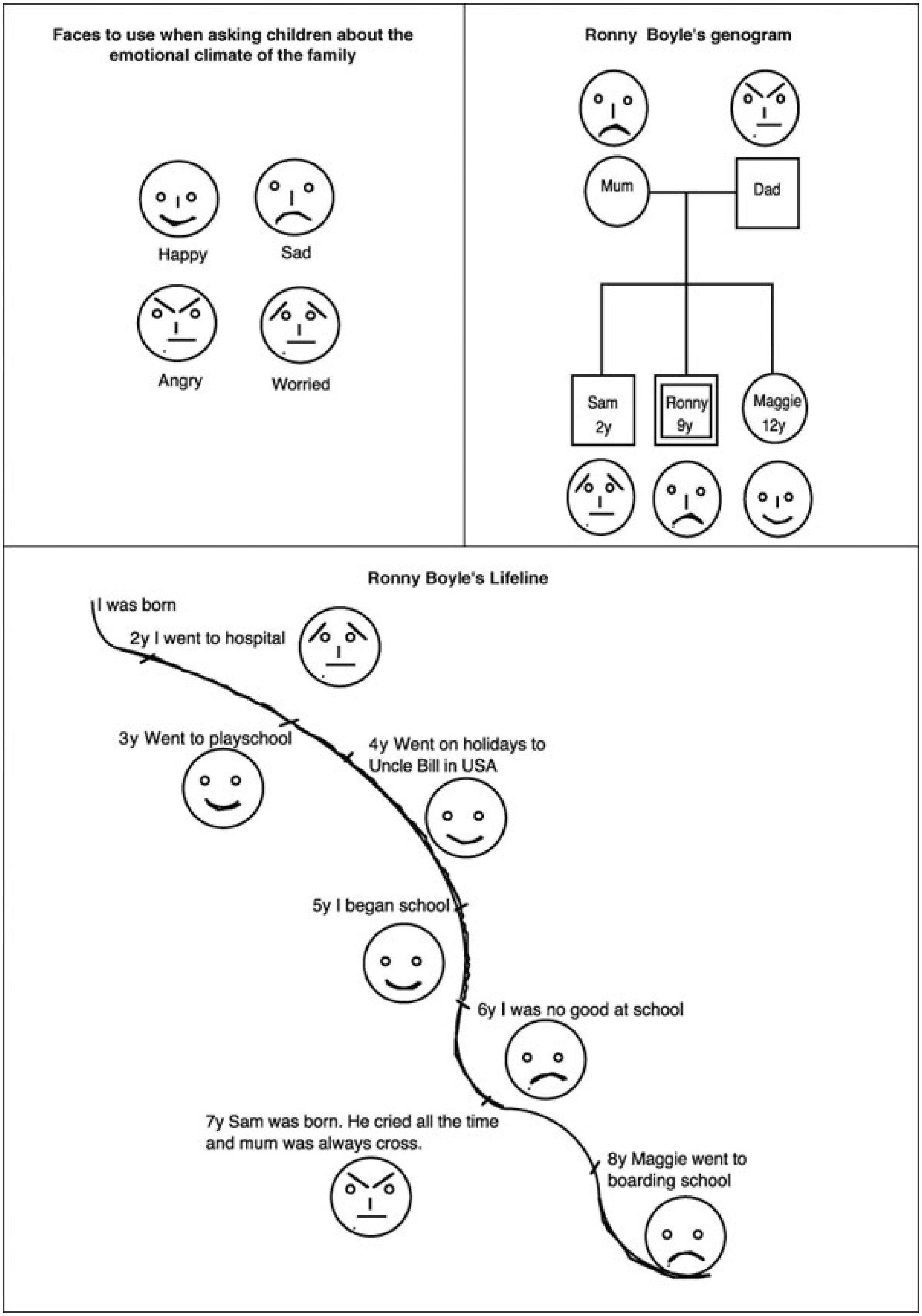


Figure 4.6 Child-centred assessment: Example of a genogram, lifeline and indicators of emotional climate used in a child-centred assessment

Special areas to address in child-centred assessments are described in other chapters. Procedures for conducting psychometric assessments of abilities are described in Chapter 8. An approach to interviewing children where there may be a suicide risk is given in Chapter 16. Chapters 19–21 contain suggestions on interviewing children in child protection cases. A guide to interviewing children about custody and access where parents have separated is given in Chapter 23.

Agendas for school contact. What follows is a list of items which may form the agenda for an interview with children's teachers or school staff:

- current and past academic performance (including standardized test scores or psychometric reports if available)
- current and past performance at sports, drama and other non-academic pursuits
- current and past relationships with teachers
- current and past relationship with peers
- teacher's role in the network
- teacher's beliefs about the problem and solution
- teacher's prediction about how the case will work out
- availability of remedial tuition
- degree of parent–teacher co-operation
- amount of child–teacher contact
- school's expectations for good conduct from the child
- school's expectations for academic attainment
- pupil's involvement in school affairs
- teacher's use of praise-based motivation.

This agenda is based on the relevant material covered in Chapters 1 and 2. In the case of Ronny Boyle, the teacher was highly sympathetic to Ronny and guessed that he might have a learning difficulty, but the school was under-resourced and so little had been done about Ronny's reading difficulties. The teacher was willing to work closely with the parents but had not done so because he felt they were antagonistic to the school. Fortunately, this was not the case, and a paired reading programme (described in Chapter 8) was set up.

Psychometric assessment agendas. Some paper-and-pencil instruments that may be used as an adjunct to clinical interviews are listed in Table 4.1, and examples are given in Figures 4.7–4.10. Some of these may be routinely included in a brief *core battery*.

For particular problems, in addition to this core battery of general measures, more specific instruments may be used. In Chapters 6–24 specialist instruments for use with specific clinical problems are listed. Corcoran and Fischer's (2013) compendium of brief problem-focused assessment scales contains assessment instruments for a wide range of specific problems.

Table 4.1 Psychometric instruments that may be used routinely as an adjunct to clinical interviews in the assessment of child

Construct	*Instrument*	*Publication*	*Com*

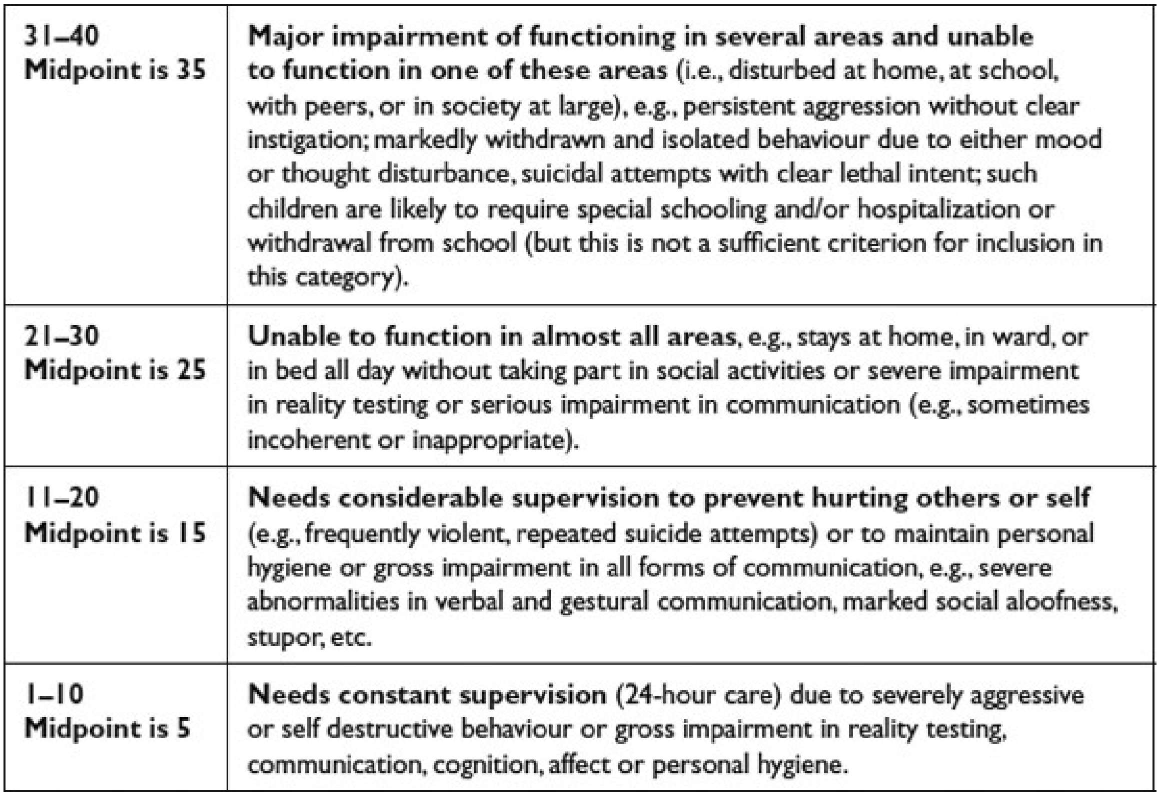
Child's behaviour problems	Strengths and Difficulties Questionnaire (SDQ)	Goodman, R. (2001). Psychometric properties of the Strengths and Difficulties Questionnaire (SDQ). *Journal of the American Academy of Child and Adolescent Psychiatry, 40*, 1337–1345. http://www.sdqinfo.com/	Each ins co 25 yi co en hy pe an be ag 15 pa an ve No ba
	Achenbach System for Empirically Based Assessment (ASEBA)	Achenbach, T. M. (2009). *The Achenbach System of Empirically Based Assessment (ASEBA): Development, findings, theory, and applications*. Burlington: University of Vermont Research Center for Children, Youth and Families. http://www.aseba.org/	Each AS ins co 11 yi pr sc int an ex be pr sc eig en de sy sc DS sc ar ch 6– ad

		ar
Behavior Assessment System for Children – Second Edition (BASC-2)	Reynolds, C., & Kamphaus, R. (2004). *Behavior Assessment System for Children, Second Edition (BASC-2).* Circle Pines, MN: American Guidance Service.	Each ins co 16 yi pr sc in an ex be pr ra sc ar te se ve su yo 2– N ba
Health of the Nation		HoN cli sc yi sc sc ar so be ov se su mi scl lar ph or pr ha

	Outcome Scales for Children and Adolescents (HoNOSCA)	Gowers, S. G., Harrington, R. C., & Whitton, A. (1998). *HoNOSCA Report on research and development*. London CRU. http://www.liv.ac.uk/honosca/Links.htm	an so sy en sy re se re an at Ra ma po an an ra of in al Th wa in
	Children's Global Assessment Scale (C-GAS)	Shaffer, D., Gould., M., Brasis, J., Ambrosini, P., Fisher, P., Bird, H., & Aluwahlia, S. (1983). A Children's Global Assessment Scale (C-GAS). *Archives of General Psychiatry, 40*, 1228–1231. http://depts.washington.edu/wimirt/Index.htm	This ra as ch fu
Family functioning	Systemic Clinical Outcome and Routine Evaluation (SCORE)	Fay, D., Carr, A., O'Reilly, K., Cahill, P., Dooley, B., Guerin, S., & Stratton, P. (2013). Irish norms for the SCORE-15 and 28 from a national telephone survey. *Journal of Family Therapy, 35*, 24–42.	These ite in co ad ad sc fo sc fa ad fa fa str fa

		di fa co Th ha va th no
Global Assessment of Relational Functioning Scale (GARF)	Yingling, L. C., Miller, W. E., McDonald, A. L., & Galewaler, S. T. (1998). *GARF Assessment Sourcebook: Using the DSM-IV Global Assessment of Relational Functioning*. New York: Brunner/Mazel.	This i ra in ap DS gi of fa fu

CGAS ratings are made by staff following an intake interview or periodically during an intervention programme. Base CGAS rating on observations and accounts of behaviour at home, school, in the clinical setting and with peers in the **past week**. First **decide on the range** within which the rating falls; then decide if the rating is above or below the midpoint of the range. **If in doubt, give a midpoint rating.**	
91–100 **Midpoint is 95**	**Superior functioning in all areas** (at home, at school and with peers); involved in a wide range of activities and has many interests (e.g., has hobbies or participates in extracurricular activities or belongs to an organized group such as Scouts, etc.); likeable, confident; 'everyday' worries never get out of hand; doing well in school; no symptoms.
81–90 **Midpoint is 85**	**Good functioning in all areas**; secure in family, school, and with peers; there may be transient difficulties and 'everyday' worries that occasionally get out of hand (e.g., mild anxiety associated with an important exam, occasional 'blowups' with siblings, parents or peers).
71–80 **Midpoint is 75**	**No more than slight impairments in functioning at home, at school, or with peers**; some disturbance of behaviour or emotional distress may be present in response to life stresses (e.g., parental separations, deaths, birth of a sibling), but these are brief and interference with functioning is transient; such children are only minimally disturbing to others and are not considered deviant by those who know them.
61–70 **Midpoint is 65**	**Some difficulty in a single area but generally functioning well** (e.g., sporadic or isolated antisocial acts, such as occasionally playing hooky or petty theft; consistent minor difficulties with schoolwork; mood changes of brief duration; fears and anxieties which do not lead to gross avoidance behaviour; self doubts); has some meaningful interpersonal relationships; most people who do not know the child well would not consider him/her deviant but those who do know him/her well might express concern.
51–60 **Midpoint is 55**	**Variable functioning with sporadic difficulties or symptoms in several but not all social areas**; disturbance would be apparent to those who encounter the child in a dysfunctional setting or time but not to those who see the child in other settings.
41–50 **Midpoint is 45**	**Moderate degree of interference in functioning in most social areas or severe impairment of functioning in one area**, such as might result from, for example, suicidal preoccupations and ruminations, school refusal and other forms of anxiety, obsessive rituals, major conversion symptoms, frequent anxiety attacks, poor to inappropriate social skills, frequent episodes of aggressive or other antisocial behaviour with some preservation of meaningful social relationships.



31–40 **Midpoint is 35**	**Major impairment of functioning in several areas and unable to function in one of these areas** (i.e., disturbed at home, at school, with peers, or in society at large), e.g., persistent aggression without clear instigation; markedly withdrawn and isolated behaviour due to either mood or thought disturbance, suicidal attempts with clear lethal intent; such children are likely to require special schooling and/or hospitalization or withdrawal from school (but this is not a sufficient criterion for inclusion in this category).
21–30 **Midpoint is 25**	**Unable to function in almost all areas**, e.g., stays at home, in ward, or in bed all day without taking part in social activities or severe impairment in reality testing or serious impairment in communication (e.g., sometimes incoherent or inappropriate).
11–20 **Midpoint is 15**	**Needs considerable supervision to prevent hurting others or self** (e.g., frequently violent, repeated suicide attempts) or to maintain personal hygiene or gross impairment in all forms of communication, e.g., severe abnormalities in verbal and gestural communication, marked social aloofness, stupor, etc.
1–10 **Midpoint is 5**	**Needs constant supervision** (24-hour care) due to severely aggressive or self destructive behaviour or gross impairment in reality testing, communication, cognition, affect or personal hygiene.

Figure 4.7 Children's Global Assessment of Functioning Scale (C-GAS)

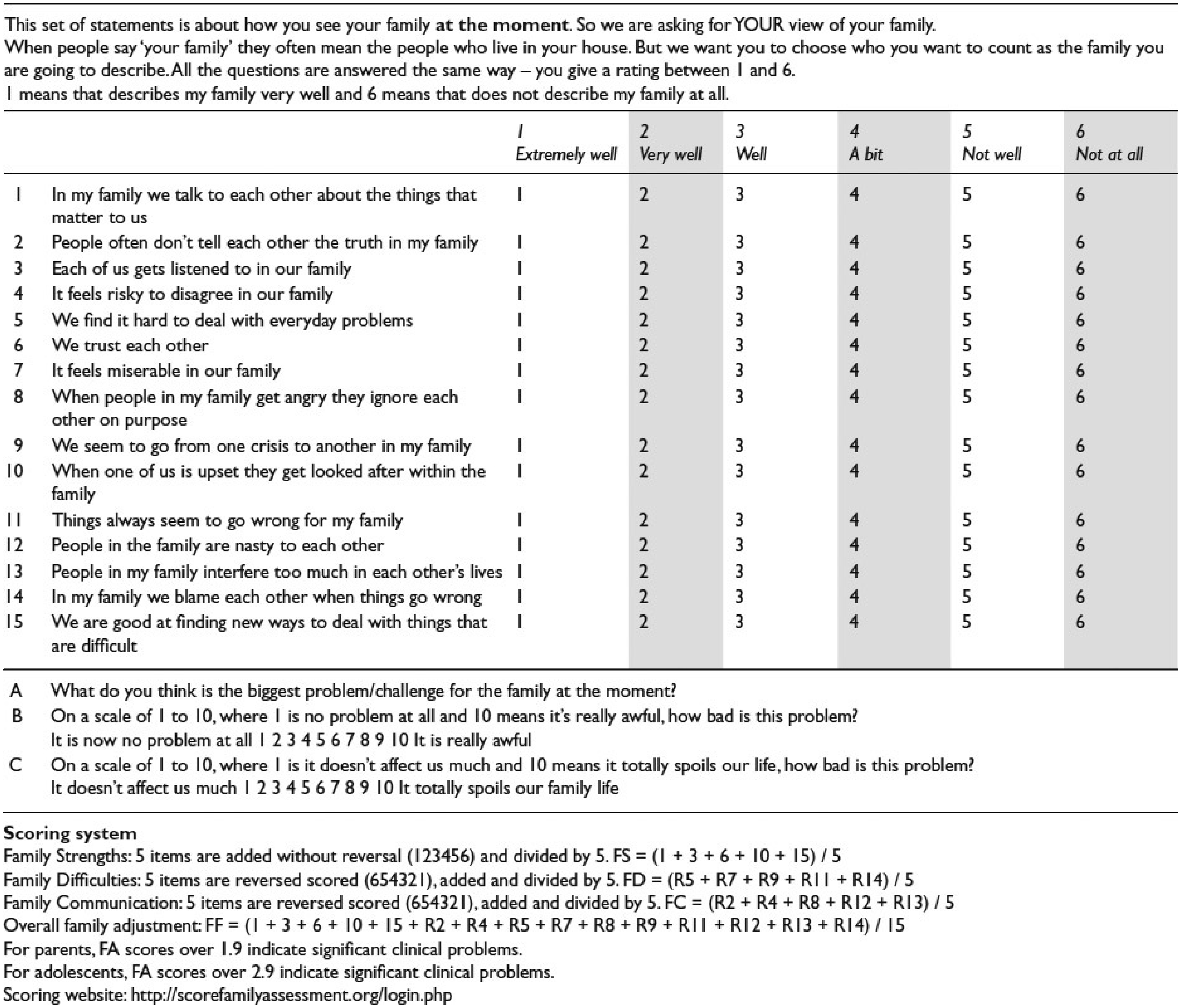
Note: Shaffer et al. (1983). Copyright © American Medical Association. Reprinted with permission.

Stage 2: assessment and formulation

The more important features of the assessment and formulation stage, which may span a number of sessions, are establishing a contract for assessment, working through the assessment agenda and recursively refining the preliminary formulation in the light of the information obtained, dealing with engagement problems, building a therapeutic alliance and giving feedback.

Contracting for assessment

At a cognitive level, contracting for assessment involves the psychologist and clients clarifying expectations and reaching an agreement to work together. The first task is to explain what assessment involves and to offer the parents, the child and each relevant member of the network a chance to accept or reject the opportunity to complete the assessment. For most parents, this will involve outlining the way in which the interviews and testing procedures will be conducted. The concept of a family interview with adjunctive individual interviews and testing session is unusual for many parents. Most parents need to be told about the time commitment required. An assessment will usually require between one and three sessions. It is important to highlight the voluntary nature of the assessment. It is also important to clarify the limits of confidentiality. Normally, the contents of sessions are confidential unless there is evidence that a family member is a serious threat to self or to others. For example, where there is evidence of suicidal intent or child abuse, confidentiality may be breached.



This set of statements is about how you see your family **at the moment**. So we are asking for YOUR view of your family.
When people say 'your family' they often mean the people who live in your house. But we want you to choose who you want to count as the family you are going to describe. All the questions are answered the same way – you give a rating between 1 and 6.
1 means that describes my family very well and 6 means that does not describe my family at all.

		1 *Extremely well*	*2* *Very well*	*3* *Well*	*4* *A bit*	*5* *Not well*	*6* *Not at all*
1	In my family we talk to each other about the things that matter to us	1	2	3	4	5	6
2	People often don't tell each other the truth in my family	1	2	3	4	5	6
3	Each of us gets listened to in our family	1	2	3	4	5	6
4	It feels risky to disagree in our family	1	2	3	4	5	6
5	We find it hard to deal with everyday problems	1	2	3	4	5	6
6	We trust each other	1	2	3	4	5	6
7	It feels miserable in our family	1	2	3	4	5	6
8	When people in my family get angry they ignore each other on purpose	1	2	3	4	5	6
9	We seem to go from one crisis to another in my family	1	2	3	4	5	6
10	When one of us is upset they get looked after within the family	1	2	3	4	5	6
11	Things always seem to go wrong for my family	1	2	3	4	5	6
12	People in the family are nasty to each other	1	2	3	4	5	6
13	People in my family interfere too much in each other's lives	1	2	3	4	5	6
14	In my family we blame each other when things go wrong	1	2	3	4	5	6
15	We are good at finding new ways to deal with things that are difficult	1	2	3	4	5	6

A What do you think is the biggest problem/challenge for the family at the moment?
B On a scale of 1 to 10, where 1 is no problem at all and 10 means it's really awful, how bad is this problem?
It is now no problem at all 1 2 3 4 5 6 7 8 9 10 It is really awful
C On a scale of 1 to 10, where 1 is it doesn't affect us much and 10 means it totally spoils our life, how bad is this problem?
It doesn't affect us much 1 2 3 4 5 6 7 8 9 10 It totally spoils our family life

Scoring system
Family Strengths: 5 items are added without reversal (123456) and divided by 5. FS = (1 + 3 + 6 + 10 + 15) / 5
Family Difficulties: 5 items are reversed scored (654321), added and divided by 5. FD = (R5 + R7 + R9 + R11 + R14) / 5
Family Communication: 5 items are reversed scored (654321), added and divided by 5. FC = (R2 + R4 + R8 + R12 + R13) / 5
Overall family adjustment: FF = (1 + 3 + 6 + 10 + 15 + R2 + R4 + R5 + R7 + R8 + R9 + R11 + R12 + R13 + R14) / 15
For parents, FA scores over 1.9 indicate significant clinical problems.
For adolescents, FA scores over 2.9 indicate significant clinical problems.
Scoring website: http://scorefamilyassessment.org/login.php

Figure 4.8 Systemic Clinical Outcome and Routine Evaluation (SCORE)

Note: Fay et al. (2013). Copyright © 2013 by John Wiley & Sons, Inc. Reprinted by permission of John Wiley & Sons, Inc.

GARF ratings are made by staff following an intake interview or periodically during an intervention programme.
Give a GARF rating for the family including all family members with whom the child who was referred to the service has regular contact.
This may include non-resident parents in separated families.
Base all ratings on observation's and accounts of behaviour of family members in the **past week**.
Base the rating of overall functioning on the mean of ratings from the 3 areas.
Overall GARF rating = (Problem solving rating and communication rating + organization rating + emotional climate rating) / 3
For each of the 3 areas, first **decide on the range** within which score falls; then decide if the rating is above or below the midpoint of the range.
If in doubt, give a midpoint rating.

81–100 **Midpoint is 90**	**Overall functioning.** The family is functioning satisfactorily from members' self-reports and from the perspective of observers. **Problem solving and communication.** Agreed routines exist that help meet the needs of the family. There is flexibility for change in response to unusual demands or events. Occasional conflicts and stressful transitions are resolved through effective problem solving and communication. **Organisation.** There is a shared understanding and agreement about roles and tasks. Decision-making is established for each functional area. There is recognition or the unique characteristics and merits of each subsystem (parents/spouses, siblings/children, individuals). **Emotional climate.** There is a situationally appropriate optimistic atmosphere. A wide range of feelings is freely expressed and managed within the family. There is a general atmosphere of warmth, caring and sharing values among all family members. Sexual relations are satisfactory.
61–80 **Midpoint is 70**	**Overall functioning.** The functioning of the family is somewhat unsatisfactory. Over a period of time many, but not all difficulties are resolved without complaints. **Problem solving and communication.** Daily routines that help meet the needs of the family are present. There is some pain and difficulty in responding to unusual demands or events. Some conflicts remain unresolved but do not disrupt family functioning. **Organisation.** Decision-making is usually competent, but efforts to control one another quite often are greater than necessary or are ineffective. Individuals and relationships are clearly demarcated. Sometimes a specific subsystem is deprecated or scapegoated. **Emotional climate.** A range of feelings is expressed, but instances of emotional blocking and tension are evident. Warmth and caring are present but are marred by a family member's irritability and frustrations. Sexual relations are reduced or problematic.
41–60 **Midpoint is 50**	**Overall functioning.** The family have occasional times of satisfying and competent functioning together, but clearly dysfunctional, unsatisfying relationships tend to predominate. **Problem solving and communication.** Communication is frequently inhibited by unresolved conflicts that often interfere with daily routines. There is significant difficulty in adapting to family stress and transitional change. **Organisation.** Decision-making is only intermittently competent and effective. Either excessive rigidity or significant lack of structure is evident at these times. Individual needs are quite often submerged by a partner or coalition. **Emotional climate.** Pain or ineffective anger or emotional deadness interferes with family enjoyment. Although there is some warmth and support between members, it is usually unequally distributed. Troublesome sexual difficulties between adults are often present.
21–40 **Midpoint is 30**	**Overall functioning.** The family is obviously and seriously dysfunctional. Forms and time periods of satisfactory relating are rare. **Problem solving and communication.** Family's routines do not meet the needs of members. They are grimly adhered to or blithely ignored. Lifecycle changes, such as departures or entries into the family, generate painful conflict and obviously frustrating failures in problem solving. **Organisation.** Decision-making is tyrannical or quite ineffective. The unique characteristics of individuals are unappreciated or ignored by either rigid or confusingly fluid coalitions. **Emotional climate.** There are infrequent periods of enjoyment of life together. Frequent distancing or open hostility reflects significant conflicts that remain unresolved and quite painful. Sexual dysfunction among adult members is commonplace.
1–20 **Midpoint is 10**	**Overall functioning.** The family has become too dysfunctional to retain continuity of contact and attachment. **Problem solving and communication.** Family routines for eating, sleeping, entering and leaving the home etc. are negligible. Family members do not know where others are or when they will be in or out. There is little effective communication among family members. **Organisation.** Family members are not organised in such a way that personal or generational responsibilities are recognized. Boundaries of the family as a whole and its subsystems cannot be identified or agreed on. Family members are physically endangered or injured or sexually assaulted. **Emotional climate.** Despair and cynicism are pervasive. There is little attention to the emotional needs of others. There is almost no sense of attachment, commitment or concern about one another's welfare.

Figure 4.9 Global Assessment of Relational Functioning Scale (GARF)

Note: Yingling et al. (1998). Reprinted with permission © Brunner/Mazel.

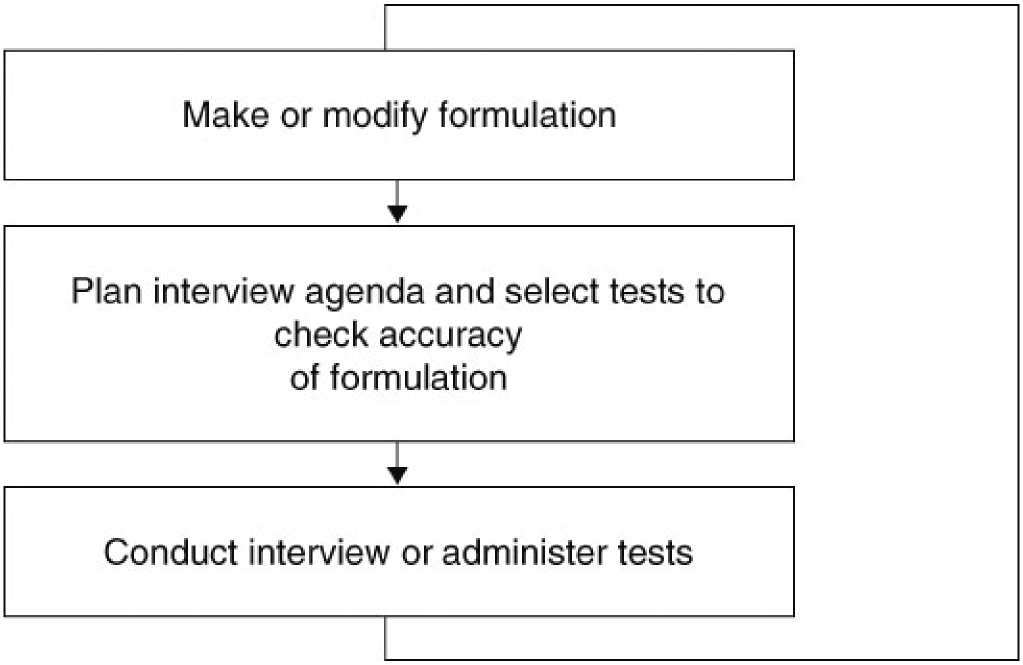


Figure 4.10 Process of recursive re-formulation

With children and teenagers, misconceptions need to be dispelled. For example, some children think that they will be involuntarily admitted to hospital and others believe that they will be put in a detention centre. In some instances, children may not wish to complete the assessment but their parents may be insistent. In others, parents may not wish to complete the assessment but a referring physician or social worker may forcefully recommend attendance. In such situations, the therapist may facilitate the negotiation of some compromise between parties. The contracting for assessment is complete when family members have been adequately informed about the process and have agreed to complete the assessment.

Recursive re-formulation

The assessment phase of the overall consultation process involves conducting the interviews or administering tests to check out the accuracy of the formulations and hypotheses made during the planning phase and modifying the formulations or hypotheses in the light of the information gained in the interview or testing sessions. In practice, the first round of interviewing and testing may not only lead to a modification of the preliminary formulation but may raise further hypotheses that need to be checked out with further interviews or tests. This recursive process, which characterizes the assessment and formulation stage, is diagrammed in Figure 4.10. The process comes to an end when a formulation has been constructed that fits with significant aspects of the child's problems, with network member's experiences of the child's problems and with available knowledge about similar problems described in the literature. This formulation should point to one or more options for case management. Options for case management will be dealt with later.

Engagement difficulties

The process of contracting for assessment does not always run smoothly. Engagement problems are to be expected. Non-attendance and inaccurate referral information are two of the more important obstacles to establishing a contract for assessment. When none of the people invited to the intake interview attend, phone the person that you have identified as the customer immediately and clarify why the family have not shown up. Non-attendance, in our experience, may be due either to practical difficulties or to a failure to identify the true customer for consultation. Non-attendance due to an inaccurate analysis of the problem system is best dealt with by arranging a meeting with the referrer to clarify who the customer for consultation is. Non-attendance due to practical problems occurs most frequently with chaotic families invited to attend a public clinic. In these instances, intake interviews may best be conducted in the clients' homes. Sometimes the information contained in the referral letter, or indeed through a referral phone call, is inaccurate and clients indicate that the child-centred referral problem was only a red flag to mark an adult mental health or marital difficulty. It is good practice to acknowledge the validity of clients using small child-focused problems as a way of checking out the therapist's trustworthiness before mentioning more profound difficulties with which they require assistance. Re-contracting or referral on to another service for adult mental health or marital work is usually deferred until after the child-focused problems have been dealt with. A fuller description of engagement difficulties is given elsewhere (Carr, 2012).

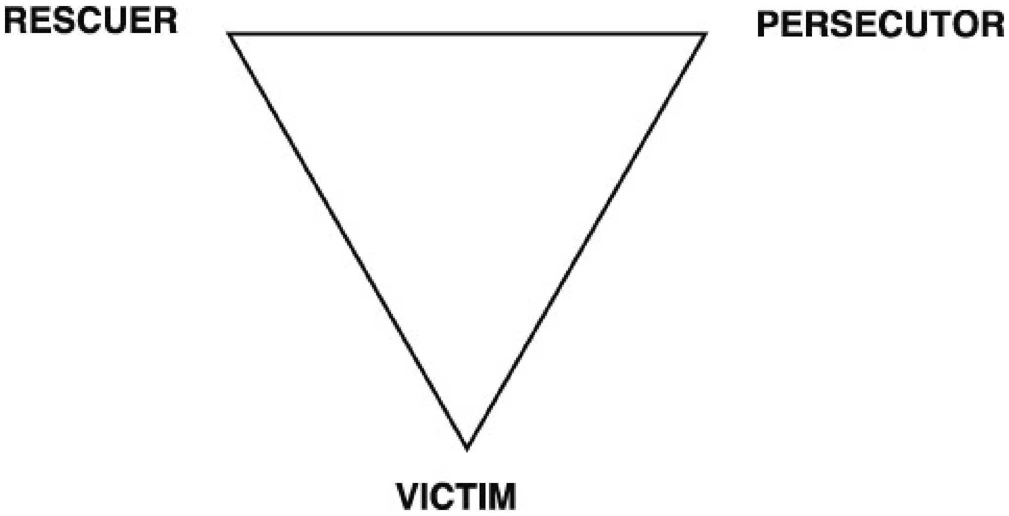


Figure 4.11 Karpman's triangle

Alliance building

In addition to providing information, the process of assessment also serves as a way for the psychologist, the child, the parents and members of the network to build a working alliance. Building a strong working alliance with the child and key members of the child's family and network is essential for valid assessment and effective therapy. *All other features of the consultation process should be subordinate to the working alliance*, since without it clients drop out of assessment and therapy or fail to make progress. The only exception to this rule is where the safety of child or family member is at risk, and in such cases protection takes priority over alliance building. Research on common factors that contribute to a positive therapeutic outcome and ethical principles of good practice point to a number of guidelines which psychologists should employ in developing a working alliance (Carr, 2009).

- When communicating with the child, parents and network members, warmth, empathy and genuineness should characterize the psychologists' communication style.
- The psychologist should form a collaborative partnership with the child, the parents and other members of the child's network.
- Assessment should be conducted from the vantage point of respectful curiosity.
- An invitational approach should be adopted in which children and family members are invited to participate in assessment and case management procedures.
- The inevitability of transference and countertransference reactions within the therapeutic relationship should be acknowledged.

Warmth, empathy and genuineness. Warmth, empathy and genuineness have repeatedly been shown to be significant contributors to therapeutic progress since Carl Rogers (1961/1995) first highlighted their importance. When communicating with the child, parents and network members, warmth, empathy and genuineness should characterize the psychologists' communication style so that all members of the network experience the psychologist as understanding (but not necessarily condoning) their actions and their viewpoint. Warmth, empathy and genuineness allow clients to have the experience of being accepted and understood. There is no place for blaming within the therapeutic relationship. While parents may create a context within which children's problems develop, usually this occurs inadvertently. Where it occurs intentionally, typically wider social or historical factors have created a context within which the parents' intention to harm a child has evolved. Blaming is a concept useful in the judicial system where seeking justice is the primary goal. Within psychological practice where understanding and promoting problem formulation and problem resolution are the main goals, warmth, empathy and genuineness are the most important features of the relationship. This guideline is relevant to work with all families including those where abuse, neglect and domestic violence have occurred. This is because understanding the position of a person who has abused another does not necessarily entail condoning the abuse.

Collaborative partnership. The psychologist should attempt to form a collaborative partnership with the child, the parents and other members of the child's network so that responsibility for the tasks of assessment and case management may be shared. This feature of the therapeutic alliance has been highlighted by cognitive therapists (Beck et al., 1979). Psychologists and families with whom they work are both experts, but in different areas. Family members are experts on the specific features of their own family and details of their unique problems. Psychologists are experts on general scientific and clinical information relevant to child and family development and the broad class of problems of which the client's is a specific instance. In managing the task of empowering parents and children to find solutions to their problems, psychologists bring expert knowledge about the psychology of such problems in general to bear on the clients' specific problem. This expertise comes from scientific literature, clinical training, clinical experience and personal psychotherapeutic work. However, the children and families whom psychologists help are experts on the details of their own problems and the way in which these are managed within their own families.

Respectful curiosity. Systemic therapists have argued that the danger of undermining the complexity of clients and their problems may be avoided if the psychologist adopts a position of respectful curiosity (Cecchin, 1987). With respectful curiosity, it is assumed that there are always multiple ways of understanding problems and the constellation of maintaining factors within which they are embedded. So the psychologist continually strives to uncover new information about the problem and potential solutions and invites the family to consider what the implications would be if the difficulties were viewed from multiple different perspectives. Ultimately the aim of the consultation process is not to find the *true* formulation of a problem but to construct the *most useful* formulation of a problem, which both fits with the facts of the situation and which opens up many feasible options for problem resolution. An attitude of respectful curiosity helps us avoid sterile diagnostic labelling or forcing clients to occupy theoretical Procrustean beds.

An invitational approach. With an invitational approach, all attempts to influence children and their parents are presented as invitations to action. Coercive directiveness or inappropriate non-directiveness are avoided. This position has been most clearly articulated by George Kelly (1955), the founder of personal construct psychology. The invitational approach allows family members to have the experience of choosing to participate in activities which constitute the consultation process and to avoid the experience of being neglected through excessive non-directiveness or coerced through excessive directiveness. This experience of choice associated with an invitational approach increases the probability that family members will co-operate with arduous tasks such as keeping diaries or completing a cognitive assessment. In treatment, an invitational approach offers children and parents a sense of control and ownership when they choose to accept the invitation to be coached in the development of new skills or are offered new ways of construing their problems and possible solutions to these.

Transference and countertransference. Transference and countertransference reactions are an inevitable feature of the therapeutic alliance, and the acceptance of this may help psychologists manage co-operation difficulties which often occur in the course of the consultation process. Clients and therapists inadvertently bring to the working alliance attitudes, expectations, emotional responses and interactional routines from early significant care-giving and care-receiving relationships. These transference and countertransference reactions, if unrecognized, may compromise therapeutic progress. However, if recognized and accurately understood, they may contribute significantly to resolving presenting problems (Malan, 1995).

Often children, parents or network members do not follow through on tasks that they have agreed to complete; fail to turn up to appointments; or insist on prolonging the consultation process apparently unnecessarily. This occurs despite their avowed wish to solve presenting problems! Clients' co-operation difficulties and resistance require careful analysis, and methods for doing this will be described in a later section. At this point it is sufficient to mention that in some instances clients have difficulty co-operating with therapy because of transference. That is, they transfer onto the psychologist relationship expectations that they had as infants of parents they experienced as either extremely nurturing or extremely neglectful. Karpman's triangle (1968), which is set out in Figure 4.11, is a useful framework for understanding transference reactions. Clients may treat the psychologist as a nurturing parent who will rescue them from psychological pain caused by some named or unnamed persecutor, without requiring them to take responsibility for solving the presenting problems. For example, a demoralized parent may look to the psychologist to rescue them from what they perceive to be a persecuting child who is aggressive and has poor sleeping habits. Alternatively clients may treat the psychologist as a neglectful parent who wants to punish them, and so they refuse to fulfil the consultation contract. For example, a father may drop out of therapy if he views the psychologist as persecuting him by undermining his values or authority within the family. In some instances, clients alternate between these extreme transference positions. When parents develop these transference reactions, it is important to recognize them and once again discuss with clients their goals and the responsibilities of the psychologist and family members within the assessment or treatment contract. In other instances, it may be appropriate to interpret transference by pointing out the parallels between a client's current relationship with the psychologist and their past relationship with their parent. However, such interpretations can only be offered in instances where a strong therapeutic alliance has developed and where clients are psychologically minded.

Most psychologists experience some disappointment or frustration when clients do not follow through on tasks that they have agreed to complete, when they fail to turn up to appointments or where they insist on prolonging the consultation process without making progress towards treatment goals. These negative emotions are experienced whether the co-operation problems are due to transference or other factors. In those instances where psychologists' negative reactions to co-operation problems are out of proportion to the clients' actual behaviour, psychologists are probably experiencing countertransference. That is, they are transferring relationship expectations based on early life experience onto current relationships with clients. Karpman's triangle (set out in Figure 4.11) offers a valuable framework for interpreting such reactions. Inside many clinical psychologists there is a *rescuer* who derives self-esteem from saving the client/*victim* from some *persecuting* person or force. Thus, in situations where the child is perceived as the victim and the parent fails to bring the child for an appointment, a countertransference reaction which I have termed *rescuing the child* may be experienced. With multi-problem families, in which all family members are viewed as victims, there may be a preliminary countertransference reaction of *rescuing the family* (from a persecuting social system). If the family do not co-operate with therapy or insist on prolonging therapy without making progress, the countertransference reaction of rescuing the family may be replaced by one of *persecuting the family*. When this countertransference reaction occurs repeatedly, burnout develops (Carr, 1997).

The origin of the urge to rescue experienced by many clinical psychologists is complex and unique to each of us. A consistent theme, however, among helping professionals is the need to rescue others as a symbolic way of rescuing some archaic vulnerable aspect of the self. This aspect of the self often owes its genesis to the experience of some unmet childhood need. Indeed, the value of personal therapy as part of psychologists' continuing professional development is that it allows us to gain insight into these intrapsychic dynamics and work through them so that we are free to take a neutral and curious stance when dealing with our clients' resistances.

Countertransference reactions may also be sparked off by particular personal characteristics of clients or the types of problems with which they present. Some therapists may find that they are particularly attracted to rescuing the women and children in families and to persecuting the males. Others may find that this pattern of countertransference only occurs in families where a bereavement has occurred or where delinquency is the presenting problem. Families where child abuse has occurred typically elicit strong countertransference reactions to both clients and other professionals, and these are discussed in Chapter 21 (Carr, 1997).

Formulation and feedback

The assessment is complete when the presenting problem and related difficulties are clarified; related predisposing, precipitating, maintaining and protective factors have been identified; a formulation has been constructed; possible goals have been identified; options for case management or treatment have been identified; and these have been discussed with the family.

A formulation is a mini-theory that explains why the presenting problems developed, why they persist, and what protective factors either prevent them from becoming worse or may be enlisted to solve the presenting problems. To construct a formulation, first a problem list is drawn up which includes all the significant problems that have been identified during the assessment, such as encopresis, attainment problems, conduct difficulties and so forth. Second, salient points from all of the assessment interviews and testing sessions are abstracted, labelled and listed. These salient points are those which may have a role in causing the child's problems, such as stressful life events or problematic parent–child relationships. Third, salient points are then categorized as those which may play a role in maintaining one or more of the problems, those which precipitated either the onset of the problems or made the problems sufficiently severe to warrant referral, and those background factors which predisposed the child to developing his or her current difficulties. These predisposing factors, precipitating factors and maintaining factors may then be linked into the most useful and coherent mini-theory possible. In addition, protective factors that may have implications for treatment and the prognosis of the case should be listed.

Abstracting, classifying and combining salient points into coherent formulations is a demanding process which requires both clinical acumen and a good knowledge of the literature. Frameworks for identifying salient points and categorizing them for a variety of specific problems are presented throughout the text and all are variations on the framework presented in Figure 2.1. For example, in Chapter 10 a framework is given for identifying predisposing, precipitating and maintaining factors in cases where conduct problems are the central concern.

The importance of formulation cannot be over-emphasized. The process of constructing a formulation is the process of linking academic knowledge of theory and research to clinical practice. If the working alliance is the engine that drives the therapeutic process, formulation is the map that provides guidance on what direction to take.

With the Boyle family, it appeared that Ronny was predisposed to developing reading problems (his reading quotient of 80 was significantly below his full scale IQ of 125) for genetic reasons and the difficulties were maintained by lack of remedial tuition at school. The multiple family bereavements, birth of a difficult temperament child, and transition of the oldest daughter to boarding school in the 4-year period prior to referral placed a high level of stress on the whole family and so predisposed all family members to have difficulty in resolving new difficulties. Against a backdrop of these predisposing factors, it appears that the change in family relationships that accompanied the birth of Ronny's younger brother, Sam, precipitated the onset of his tantrums and conduct difficulties. He probably felt displaced from his role as the youngest and only male child. A year later, the loss of social support which occurred when Ronny's eldest sister moved to boarding school precipitated the onset of the encopresis. The conduct and toileting difficulties appeared to be maintained by entrenched behaviour patterns and belief systems. Ronny was regularly involved in failure experiences in school and coercive interactions with his mother, to which his father was peripheral. Underpinning these interaction patterns were Ronny's belief system characterized by low self-esteem and low self-efficacy, his mother's increasingly negative beliefs about him, and his father's minimization of these difficulties.

However, a large number of protective factors were also present in the Boyle case. Ronny was a bright child, of easy temperament, with good planning skills and a sense of humour, and was capable of making and maintaining friendships. He had experienced no early losses, originally had a secure attachment to his mother, and was placed in a school which was under-resourced but his teacher was sympathetic to his reading problems. Furthermore the family as a whole had a good social support network.

Once a formulation such as this has been constructed, feedback is given to the family about the formulation, and options for future management of the case are considered. The level of detail used in giving feedback needs to be matched to the family's cognitive ability to comprehend it and their emotional readiness to accept it. As part of the alliance-building process it is usually easiest for families if the protective factors are listed first, and then the section of the formulation explaining the aetiology of the problem is given. This process of presenting protective factors first generates a sense of hope. It is also important to empathize with each person's position when outlining the way in which the problem appears to have evolved. Usually family members are well intentioned, but under stress and without adequate information they inadvertently contribute to problem development or maintenance. In the process of feeding back some or all of the formulation to family members, in order to maintain a good working alliance it is useful to regularly check that the family have understood and accepted the formulation so far. Once the family have understood and accepted the formulation, broad options for case management may be outlined. It is futile to discuss case management options if the parents or legal guardians deny the problem or refuse to accept even part of the formulation.

Case management options. These may be derived from the formulation by speculating about what features of problem maintaining behaviour patterns and belief systems would have to change in order for the problem to be resolved. The literature on effective treatments in similar cases should be considered. Most case management options fall into the following categories:

- take no immediate action
- psychoeducation and periodic re-assessment
- refer to another professional within the psychologist's multi-disciplinary team for consultation; for example, audiology, speech therapy, social work or physiotherapy
- refer to another professional or residential facility outside the multi-disciplinary team
- offer a low-intensity, focal and circumscribed psychological intervention to the child, parents, family or school
- offer multi-systemic intervention alone or in conjunction with other professionals or

residential facility to the child, parents, family or school.

In some cases, the process of assessment and formulation leads to problem resolution, and no further action is required. Two patterns of assessment-based problem resolution are common. In the first, the problem is re-framed so that the family no longer see it as a problem. For example, the problem is redefined as a normal reaction, a developmental phase or an unfortunate but transient incident. In the second, the process of assessment releases family members' natural problem-solving skills and they resolve the problem themselves. For example, many parents, once they discuss their anxiety about handling their child in a productive way during a family assessment interview, feel released to do so.

In cases of specific or general physical, linguistic, academic or intellectual disabilities, psychoeducation and periodic re-assessment may be a central recommendation. Psychoeducation may involve the provision of oral and written information about the condition and about support groups and legal educational or remedial entitlements. Reassessment may be advised on an annual basis or at critical points in the lifecycle where major placement or resourcing decisions have to be made such as school entry, changing schools or leaving school.

In cases of sensory, physical, linguistic or intellectual disabilities, multi-disciplinary assessment is vital. Referrals to paediatric medicine, physiotherapy, speech and language therapy, occupational therapy, social work and audiology should all be considered. A referral to paediatric medicine is critical to consider if there is a suspicion that psychological symptoms may reflect an underlying organic condition such as thyrotoxicosis (which may present as an anxiety-like disorder) or seizure disorder (which may present as daydreaming). A referral to child psychiatry is critical to consider in cases where psychotic or hypomanic features are central to the presentation, where a hospital admission may be required in cases of self-harm or where detoxification following substance abuse is required. In cases where child abuse has occurred or is suspected, national policy and local guidelines concerning inter-agency co-operation and reporting such cases to the statutory authorities should be followed. A fuller discussion of these issues is contained in Chapters 19–21. A number of general intervention strategies are discussed later in this chapter. Detailed guidelines on specific focal or multi-systemic interventions for children and members of their networks for particular problems are given in Chapters 6–24.

Low-intensity focal interventions and high-intensity complex multi-systemic treatment programmes are increasingly being conceptualized within a stepped care model (Draper & O'Donohue, 2011). Within stepped care, highly intensive interventions are offered only when cases have multiple, complex, severe, chronic difficulties or after cases have failed to respond to interventions of lower intensity. Brief assessment with the provision of bibliotherapy or computer-based intervention with minimal psychologist contact, such as the computer-based version of the Coping Cat anxiety management program for children (Kendall et al., 2010), are examples of focal, low-intensity interventions, suitable for cases with mild problems or at risk of developing problems. Time-limited group-based skills training programs for children or parents, such as the Incredible Years programmes for conduct problems (Webster-Stratton & Reid, 2010), are examples of interventions of intermediate intensity. High-intensity interventions involve the provision of longer-term multi-systemic outpatient or inpatient-based programmes to individual children and their families. Stepped care services in which clients with greater need receive more intensive treatment take account of variability in case complexity, the high demand for clinical child psychology, and the scarcity of these services.

Stage 3: case management

When parents and their children have completed the assessment stage, have accepted the formulation and are aware of the broad possibilities for case management, it is appropriate to progress to the stage of case management. The central tasks of this stage are contracting for further involvement to achieve specific goals, participating in the completion of the agreed case management plan and troubleshooting resistance. If at this stage it is apparent that other family problems such as parental depression or marital discord require attention, referrals for this work may be made, and it may be conducted concurrently with the programme which focuses explicitly on the child's problems. Alternatively, addressing these difficulties may be postponed until after the child-focused difficulties have been resolved.

Contracting for case management and goal setting

The contracting process involves inviting parents and children to make a commitment to pursue a specific case management plan to reach specific goals. This plan may include one or more of the case management options discussed in the previous section. Where part of the plan includes either focal or multi-systemic intervention, goal setting is particularly important. Clear, realistic, visualized goals that are fully accepted by all family members and that are perceived to be moderately challenging are crucial for effective therapy (Carr, 1997). Goal setting takes time and patience. Different family members may have different priorities when it comes to goal setting, and negotiation about this is essential. This negotiation must take account of the costs and benefits of each goal for each family member.

In this context it is important to give parents and children clear information about research on the costs and benefits of psychological interventions and the overall results of outcome studies (Carr, 2009). Broadly speaking, most effective psychological interventions which have been developed for children and adolescents, are effective in only 66–75% of cases, and about 10% of cases deteriorate as a result of interventions. The more protective factors that are present in a given case, the more likely it is that therapy will be effective. If therapy is going to be effective, most of the gains for most types of child and family therapy are made in the first 6–10 sessions. Relapses are inevitable for many types of problems, and periodic follow-up sessions may be necessary to help children and families handle relapse situations. With chronic problems and disabilities, further episodes of intervention are typically offered at life-stage transitions.

It is usually a more efficient use of time to agree on goals first before discussing the details of how they might be achieved. The contracting session is complete when all involved members of the child's network necessary for implementing the case management plan agree to be involved in an episode of consultation to achieve specific goals. In these cost-conscious times, in public services or managed care services, therapeutic episodes should be time limited to 6–10 sessions, since most therapeutic change appears to happen within this time frame.

At this point, or indeed earlier in the consultation process, children or parents may point out that they have been through unsuccessful treatment programmes in the past, and that it appears that the psychological assessment or treatment programme being offered is similar to that which failed before. History of previous treatment will have been assessed using the assessment protocol outlined in Figure 4.2, so you will be familiar with the material the family wish to discuss, if it is raised at this point in the consultation process. However, it may be useful for concerned family members to be invited to give their views on previous unsuccessful treatment programmes. It may also be appropriate to invite family members to ventilate the feelings of fear, anger or demoralization that have led them to question the value of embarking on yet another treatment programme. Against this backdrop, the similarities and differences between those unsuccessful programmes and the services that are being offered may be outlined. In many instances there will be many similarities, since most psychosocial interventions involve meeting regularly and talking about problems and their solution using some type of psychosocial or biomedical model as a problem-solving framework. There are some important differences between the approach to consultation described here and other routine treatments which focus on one system (e.g. the child as an individual) or one type of intervention (e.g. support). The multi-systemic contextual approach to the practice of clinical psychology described here assumes that children's problems are complex and deserve thorough assessment. This assessment may be multi-disciplinary and will take into account the team's observations of the child but also those of the parents, teachers and other involved professionals. All of the information is integrated into a formulation, which is a map of how the problem evolved and is maintained. Treatment plans are based on this map and on evidence about the types of treatments that have been shown to work in scientific studies of similar sorts of problems. Where treatment programmes that have failed in the past are recommended as part of the consultation approach described here, it may be that in the past they were tried for too short a time, inappropriately applied, or used alone rather than as part of a multi-systemic package. For example, the use of a reward system in isolation for a week to treat encopresis will usually be ineffective. However, a reward system used over a period of months may be one component of an overall effective treatment programme. Similarly, long-term non-directive family therapy will usually be ineffective in the treatment of conduct problems, but brief behavioural family therapy may be highly effective. Families may find it useful to explore these comparisons between previously ineffective treatment experiences and those being offered before committing themselves to a treatment plan.

Completing case management plans

Typical case management programmes include one or more of the following elements:

- a family-based approach
- psychoeducation
- monitoring problems and exceptions
- communication training
- problem-solving training
- providing support and coaching parents in providing support
- coaching in using reward systems
- coaching in behavioural control
- coaching in tension reduction
- coaching children in cognitive coping strategies
- home–school liaison
- troubleshooting resistance
- co-ordinating multi-disciplinary and school input.

Increasingly within clinical child psychology there is a move towards transdiagnostic intervention programmes involving a suite of modules, such as those listed earlier, from which elements are drawn and combined to meet the needs of specific cases (Chorpita & Weisz, 2009; Ehrenreich-May & Chu, 2014; Friedberg et al., 2009).

Family-based treatment approach. A family-based approach to children's psychological problems aims to help family members communicate clearly and openly about the problem and related issues, to decrease the emotional intensity of parent–child interactions related to the problem, to encourage joint parental problem solving with respect to the child's difficulties, to optimize parental support of the child, and to optimize parents' use of health care resources and support groups. Where fathers are unavailable during office hours, it is worthwhile making special arrangements to schedule at least a couple of family sessions which are convenient for the father, since the participation of fathers in family-based therapy is associated with a positive outcome (Carr, 2009). Where parents are separated or divorced, it is particularly important to arrange some sessions with the non-custodial parent, since it is important that both parents adopt the same approach in understanding and managing the child's difficulties.

Psychoeducation. In psychoeducational sessions parents, children and their siblings are given both general information about the problem and a specific formulation of the child's particular difficulties. Simplicity and realistic optimism are central to good psychoeducation. It is important not to overwhelm parents and children with information, so a good rule of thumb is to think about a case in complex terms but explain it to clients in as simple terms as possible. Put succinctly:

- *Think complex – talk simple.*

Good clinical practice involves matching the amount of information given about the formulation and case management plan to the client's readiness to understand and accept it. A second important rule of thumb is to engender a realistic level of hope when giving feedback by focusing on strengths and protective factors first, and referring to aetiological factors later. Put succinctly:

- *Create hope – name strengths.*

In psychoeducation, information on clinical features, predisposing, precipitating, maintaining and protective factors may be given along with the probable impact of the problem in the short and long term on cognition, emotions, behaviour, family adjustment, school adjustment and health. Websites for fact sheets about common psychological problems are given at the end of this chapter. Details of the treatment programme should be given both orally and in written form, if appropriate, in a way that is compressible to the parents and the child. It is important to highlight the child's and family's protective factors and strengths that increase the probability that the child will respond positively to treatment. This should be balanced with a statement of the sacrifices that the child and family will have to make to participate in the treatment programme. Common sacrifices include attending a series of consultation sessions; discussing difficult issues openly; completing homework assignments; being prepared for progress to be hampered by setbacks; and learning to live with ongoing residual difficulties, accepting that episodes of therapy are time limited, accepting that at best the chances are only 2 out of 3 that therapy will be helpful. Psychoeducation should empower parents and children. It should allow them to reach a position where they can give a clear account of the problems and the correct way to manage it. Psychoeducation may be offered in individual sessions, family sessions or group sessions. For some problems such as diabetes, there are now interactive instructional software programmes available that permit children to learn about their illness at their own pace. These have the advantage of being highly motivating for children and exciting to use. However, such programmes should always be supplemented with individual consultations to answer the child's specific questions. Family psychoeducation sessions allow the family to develop a shared understanding of the illness. Group psychoeducation offers a forum where children and parents can meet others in the same position, and this has the benefit of providing additional support for family members. A wide variety of parent and child information books, workbooks, games and activities are available and may also be used for psychoeducational purposes. At the end of many of the chapters in this text, such resources are listed. However, it is vital that whatever information is given to parents or children is consistent with the approach that you are taking in your formulation and treatment programme.

Separating the problem from the person, re-framing and re-labelling are three specific psychoeducational techniques that are used throughout the process of consultation (Carr, 2012).

In *separating the problem from the person*, the child's difficulties are defined as distinct from the child's identity and the child is described as being aligned with the parents and other network members in requiring a solution to the problem. Thus the child and parents may be described as a team who are working together to find a way to deal with a fiery temper, a difficult temperament, ADHD, anxiety, depression, encopresis, diabetes, addiction or whatever the problem happens to be. With young children, the problem may be externalized and personified, and the child and family's task defined as defeating the personification of the problem. For example, encopresis may be personified as *Sneaky-Poo*. Obsessive-compulsive disorder may be personified as *Mr Too-Tidy* and so on. The parent's role becomes supporting the child in running Sneaky-Poo or Mr Too-Tidy out of the child's life. This strategy has been pioneered by White and Epston (1990). A particularly detailed treatment programme for using this technique in the management of obsessive-compulsive disorder is given in Chapter 13. The process of separating the problem from the person and then externalizing the problem counters the destructive tendency to label the child as the problem. The psychologist helps the parents move from a position where they say 'My child is bad, sad, sick or mad, and I want you to make them better' to 'My child is a good person, with a challenging problem, and we have to work together to sort this out'.

With *re-framing*, clients are offered a new framework within which to conceptualize a sequence of events, and this new way of conceptualizing the sequence of events makes it more likely that the problem will be resolved rather than maintained. For example, where a mother and child become involved in heated arguments about the child's reluctance to apologize for hitting his sister, the mother may frame this as evidence that the child is intrinsically delinquent and say that this is the reason that she usually leaves these situations in frustration while her child is still screaming at her. This situation may be re-framed by pointing out that the child looks to the parent to learn self-control, and it is difficult to learn self-control if uncontrolled behaviour like screaming may be used to obtain relief. That is, the relief provided by the mother withdrawing from the situation before the child has stopped screaming and apologized to his sister. From this example, it may be seen that, here, re-framing is part of a psychoeducational input on managing aggressive behaviour which provides a rationale for the mother using a reward system for increasing positive behaviour (like apologizing) or a behavioural control system for decreasing negative behaviour (such as screaming). With re-framing, the problem is contextualized and described as part of an interactional process rather than as an intrinsic characteristic of the child.

Re-labelling is a way of altering parents' and children's negative or pessimistic attributions and cognitive biases. With re-labelling, the psychologist routinely offers positive or optimistic labels for ambiguous behaviour as a substitute for negative or pessimistic labels. So where a parent says 'He was standing there *lazy and stupid* doing nothing, so I *told* him to get on with it', the psychologist may re-label this by saying 'When he was there *thinking through what to do next*, you *encouraged* him to start his homework'. Where a parent says 'She needs to be at home when she is this *ill*', the sentiment may be re-framed as 'while she is *recovering*, she needs to spend some time at home'. With re-labelling, children and families are offered optimistic ways of construing events which open up possibilities for collaboration and problem solving as an alternative to pessimistic constructions of the problem which engender polarization and problem maintenance.

Monitoring problems. For most difficulties, it is useful to train children and/or parents to regularly record information about the main presenting problems, the circumstances surrounding their occurrence and the degree to which children and other family members complete therapeutic homework tasks or adhere to treatment regimes. Intensity ratings, frequency counts, durations and other features of problems or symptoms may be recorded regularly. Intrapsychic and interpersonal events that happen before, during and after problems may also be noted. When inviting parents and children to use a monitoring system, the chances of them co-operating are better if a simple system is used to start out with. Later, more complex versions of it may be developed. Suggestions for monitoring particular types of problems and examples of monitoring charts are given throughout Chapters 6–24.

Information from monitoring charts should be reviewed regularly, and family members may be invited to speculate on the reasons for changes in problems and related events. Where monitoring charts show that specific stimuli are associated with problems, ways of eliminating these stimuli may be examined. For example, in the case of asthma, the level of dust in a child's environment may be reduced. If eliminating problem-eliciting stimuli is not possible, ways of helping youngsters cope with these stimuli may be explored. For example, youngsters may be trained to cope with low levels of the stimulus first before being exposed to high levels of the stimulus. This is the rationale for systematic desensitization to anxiety-provoking situations discussed in Chapter 12. Alternatively, youngsters may be trained to interpret the stimulus in a way that leads to positive rather than negative affect. This is the principle underlying the Challenge-Test-Reward (CTR) cognitive coping strategy outlined shortly. Where clear patterns of parent–child interaction are associated with problems, family members may be invited to brainstorm ways of altering these interpersonal sequences. In order to do this they may require training in communication and problem-solving skills.

Communication skills. Where parents and children have difficulties communicating clearly with each other about how best to manage the presenting problems, communication training may be appropriate. A common problem is that parents have difficulty listening to their children and children have difficulties clearly articulating their views to their parents. A second common communication problem is the difficulty parents have in listening to each other's views about how best to manage the child's problems in a non-judgemental way. In some instances parents and children have never learned communication skills. In others, good communication skills have been acquired but intoxication or intense emotions such as anger, anxiety or depression prevent parents and children from using these skills. Training in using communication skills is appropriate in the former situation, but in the latter the key problem to be solved is how to arrange episodes of communication which will be uninfluenced by intoxication or negative mood states. Communication skills may be artificially sub-divided into those used for listening and those used for telling somebody something. These skills are listed in Table 4.2. Parents and children first need to be given an intellectual understanding of these skills. Then the psychologist should model the skills for the clients. Clients should at this point be invited to try using the skills to discuss a neutral topic in the session. Let the episode of communication run for 5 or 10 minutes, and take notes of various difficulties that occur. Then give feedback and, in the light of this, ask clients to complete the episode again. Typical mistakes include interrupting before the other person has finished, failing to summarize what the other person said accurately, attributing negative malicious intentions to the other person when they have not communicated that they hold such intentions, failing to check that the message was accurately sent, failing to check that the message has been accurately received, blaming and sulking. Once clients can use the skills to exchange views on a neutral topic, they may then be used to exchange views on emotionally loaded issues first in the session and later at home. Communication homework assignments should be highly specific to prevent clients from lapsing into poor communication habits. Thus, specific members of a family should be invited to find out the other person's views on a specific topic. A time and place, free of distractions, should be agreed and a time limit of no more than 20 minutes set for initial communication assignments and 40 minutes when skills are better developed.

Table 4.2 Guidelines for listening and communication skills

SPECIFIC GUIDELINES	*GENERAL GUIDELINES*
LISTENING SKILLS	• Make a time and place for clear communication

• Listen without interruption	• Remove distractions and turn off the TV
• Summarize key points	• Discuss one problem at a time
• Check that you have understood accurately	• Try to listen with the intention of accurately remembering what was said
• Reply	• Try to listen without judging what is being said
COMMUNICATION SKILLS	• Avoid negative mind-reading
• Decide on specific key points	• State your points without attacking the other person
• Organize them logically	• Avoid blaming, sulking or abusing
• Say them clearly	• Avoid interruptions
• Check you have been understood	• Take turns fairly • Be brief
• Allow space for a reply	• Make congruent 'I' statements

Problem-solving skills. When it is apparent that parents or children need to take a more systematic approach to resolving problems, problem-solving skills training is appropriate. Joint problem-solving training for parents is useful where parents have difficulty co-operatively developing plans for solving children's difficulties. Joint problem-solving training for adolescents and parents may be useful where parents and teenagers are having difficulty negotiating about the youngster's increasing autonomy. Individual problem-solving training for youngsters may be helpful when children have specific peer-group or academic problems that they repeatedly fail to solve, such as joining in peer activities without aggression or managing homework assignments set by their teachers. As with communication difficulties, clients may have difficulties solving problems because they lack the skills or because intoxication, negative mood states or other factors interfere with the use of well-developed skills. Where such factors are present, therapy should focus on removing these obstacles to effective problem solving. In problem-solving training, the sequence of stages described for communication training should be followed with a progression from explanation of the skills listed in Table 4.3, to modelling, to rehearsal in the session with the focus on a neutral topic. Feedback should be given during rehearsal until the skills are well developed. Then clients may be invited to use the skills to solve emotionally laden problems. When families are observed trying to solve emotionally laden problems, often problem definition is the first pitfall they encounter. Many clients need to be coached in how to translate a big vague problem into a few small, specific problems. A second pitfall involves trying to solve more than one problem at a time. A third area of difficulty is helping clients to hold off on evaluating the pros and cons of any one solution until as many solutions as possible have been listed. This is important, since premature evaluating can stifle the production of creative solutions. Often families need to be coached out of bad communication habits in problem-solving training such as negative mind-reading, where they attribute negative thoughts or feelings to others, blaming, sulking and abusing others. Where families with chronic problems successfully resolve a difficulty, a vital part of the coaching process is to help them celebrate this victory.

Table 4.3 Guidelines for problem-solving skills

SPECIFIC GUIDELINES	*GENERAL GUIDELINES*
• Define the problem • Brainstorm options • Explore pros and cons • Agree on a joint action plan • Implement the plan • Review progress • Revise the original plan	• Make a time and place for clear communication • Remove distractions and turn off the TV • Discuss one problem at a time • Divide one big problem into a few small problems • Tackle problems one at a time • Avoid vague problem definitions • Define problems briefly • Show that the problem (not the person) makes you feel bad • Acknowledge your share of the responsibility in causing the problem • Do not explore pros and cons until you have finished brainstorming • Celebrate success

Providing support. In many instances children, adolescents and parents referred for consultation lack social support. This deficit can be addressed by providing a forum where clients may confide their views and feelings about their problem situation. Children and adolescents may be seen individually or in groups and given space to talk about their problems or to use symbolic play or artistic media such as painting, drawing, poetry writing and so forth to articulate their views and feelings about their situation. Parents may be provided with sessions separately from the children, either individually, as couples or in groups, to ventilate their intense emotions and concerns about their children's difficulties. Regardless of the forum used, the responsibility of the psychologist is to

- help clients find a medium through which they can express their thoughts and feelings
- create a climate in which the clients experience empathy, warmth and genuineness from those providing the support.

In some instances, it may be possible to refer clients to self-help support groups where others with similar problems meet and provide mutual support. Some such groups provide information, ongoing weekly support, and in some instances arrange summer camps for children.

For children, particularly those who have become embroiled in coercive problem maintaining interaction patterns, an important intervention is to train parents in providing their children with support.

Parents may be coached in joint sessions with their children in how to do this. The guidelines for supportive play set out in Table 4.4 are first explained. Next, the psychologist models inviting the child to select a play activity and engaging in child-led play, while positively commenting on the child's activity, praising the child regularly and avoiding commands and teaching. Then the parent is invited to copy the psychologist's activity and feedback is given to parents on what they are doing well and what they need to do more of. Finally, the parent and child are invited to complete a 20-minute daily episode of child-led play to increase the amount of support the child experiences form the parent.

Table 4.4 Guidelines for supportive play

SPECIFIC GUIDELINES	*GENERAL GUIDELINES*
• Set a specific time for 20 minutes of supportive play per day • Ask child to decide what he or she wants to do • Agree on an activity • Participate wholeheartedly • Run a commentary on what the child is doing or saying, to show your child that you are paying attention to what they find interesting • Make congruent 'I like it when you…' statements, to show your child you feel good about being there • Praise your child repeatedly • Laugh and make physical contact through hugs or rough and tumble • Finish the episode by summarizing what you did together and how much you enjoyed it	• Set out to use the episode to build a positive relationship with your child • Try to use the episode to give your child the message that they are in control of what happens and that you like being with them • Try to foresee rule-breaking and prevent it from happening or ignore it • Avoid using commands, instructions or teaching • Notice how much you enjoy being with your child

Reward systems. Where the goal of treatment is to help children learn new habits such as going to bed on time, taking medication, playing co-operatively with a sibling or coping with anxiety-providing situations, reward systems may be used. Guidelines for using reward systems are presented in Table 4.5. Reward systems may be introduced to parents and children in conjoint family sessions or in parent training sessions from which the child is absent. Whatever format is used, it is critical that the target behaviour is clearly defined, monitored regularly and rewarded promptly, using a symbolic system of points, tokens, stars or smiling faces that is age appropriate and acceptable to the child. Examples of smiling face and points charts are given in Chapter 10. The symbolic reward system may be backed by tangible rewards or prizes which are highly valued, so that the child may buy these with points or tokens after they have accumulated a sufficient number. When point systems are ineffective, it may be that some adult in the child's environment, such as a non-custodial parent in the case of children from separated families, is not committed to implementing the system. In other instances, the target behaviours may be ambiguous or the number of points required to win a prize may be too high. Troubleshooting these difficulties is a routine part of coaching families in using reward systems.

Behavioural control skills. Where parents have difficulties helping children to avoid engaging in aggressive and destructive behaviour, training in behavioural control skills is appropriate. Guidelines for a behavioural control programme are set out in Table 4.6. These types of programmes may be explained to parents alone or in the presence of their children in conjoint family sessions. The format preferred by the parent should be used. The programme should be framed as a way for helping the child to develop self-control skills. Specific negative or aggressive behaviours are defined as targets for which time-out from reinforcement is given. When these behaviours occur, the parent gives a command to the child to stop and this may be followed up by two warnings. If children comply they are praised. If not, they are brought to time-out without any display of anger or any reasoned explanation being given at that time. The time for reasoned explanation is at the outset of the programme or when it is being reviewed, not following misbehaviour. During time-out, the child sits on a chair in the corner of the kitchen, the hall or its bedroom away from family activities and interesting or reinforcing events or toys. Following a period of 2–5 minutes (depending upon the child's age), the child is invited to re-join family activities and is engaged in a stimulating and rewarding exchange with the parent. If children misbehave or protest aggressively while in time-out, they remain there until they have been compliant and quiet for 30 seconds before re-joining family activities and engaging in a stimulating interaction with the parent. Running a behavioural control programme for the first 2 weeks is very stressful for most families. The normal pattern is for the time-out period to increase in length gradually and then eventually to begin to diminish. During this escalation period when the child is testing out the parents' resolve and having a last binge of self-indulgence before learning self-control, it is important to help families maintain the unconditionally supportive aspect of family life. There are two important interventions that may be useful here. First, spouses may be invited to set aside special time where the focus is on mutual marital support. Second, parents may plan episodes of supportive play with the children. The important feature of marital support is that the couple set aside time to spend together without the children to talk to each other about issues unrelated to the children. In single-parent families, parents may be helped to explore ways for obtaining support from their network of friends and members of the extended family.

Table 4.5 Guidelines for reward systems

SPECIFIC GUIDELINES	*GENERAL GUIDELINES*

• Define the target behaviour clearly • Decide when and where the monitoring will occur • Make up a points chart or smiling-face chart • Explain to the child that they can win points or smiling faces by carrying out the target behaviour • Ask the child to list a set of prizes that they would like to be able to buy with their points or smiling faces • Agree on how many points or smiling faces are necessary to buy each prize • Follow through on the plan and review it for effectiveness	• Present the reward system to your child as a way of helping him or her learn grown-up habits • All parental figures in the child's network should understand and agree to using the system • Use a chart that is age appropriate; smiling faces or stars are good for children and points may be used for adolescents • The sooner points are given after completing the target behaviour, the quicker the child will learn • Highly valued prizes lead to faster learning • Try to fine-tune the system so that successes are maximized • If prizes are not being won, make the target behaviour smaller and clearer or the cost of prizes lower, and make sure that all parent figures understand and are committed to using the system • If the system is not working, do not criticize the child • Always keep the number of target behaviours below five

Table 4.6 Guidelines for behavioural control programmes

SPECIFIC GUIDELINES	*GENERAL GUIDELINES*
BEHAVIOURAL CONTROL PROGRAMME • Agree on a few clear rules • Set clear consequences • Follow through • Reward good behaviour • Use time-out or loss of privileges for rule-breaking • Monitor change visibly **TIME-OUT** • Give two warnings • Bring the child to time-out without negative emotion • After 5 minutes engage the child in a positive activity and praise him for temper control • If rule-breaking continues, return child to time-out until 30 seconds of quietness occurs • Engage in positive activity with child and	• Set out with the expectation that you can teach your child one good habit at a time • Build in episodes of unconditional special time into behavioural control programme • Frame the programme as learning self-control • Involve the child in filling in, designing and using the monitoring chart or system • Monitor increases in positive behaviour as well as decreases in negative behaviour • Do not hold grudges after episodes of negative behaviour • Avoid negative mind-reading • Avoid blaming, sulking or abusing • Ask for spouse support when you feel bad about the programme

praise for temper control	• Celebrate success

Tension reduction skills. Training in tension reduction skills may be included in treatment programmes where physiological arousal associated with anxiety, anger or other emotions is a central problem. Progressive muscle relaxation exercise, breathing exercises, visualization skills and auto-hypnosis are described in Chapter 12. With adolescents it may be appropriate to offer training in these tension reduction skills directly to the youngster. With children, parents may be coached in helping youngsters to work though these tension reduction routines.

Cognitive coping strategies. The types of internal or external stimuli to which children and parents attend prior to and during episodes of the presenting problem, the way in which they evaluate these stimuli, and the behavioural and interpersonal patterns that they develop as a result of making these interpretations may all contribute to the maintenance of the presenting problems. Children and parents may be helped to cope with problematic situations more effectively by learning specific coping strategies such as distraction, where the aim is to avoid attending to distressing stimuli or reinterpretation of problematic situations in ways that are less distressing. In Chapter 12, the CTR method for training children to interpret situations in less distressing ways is described. Children are invited to **C**hallenge threatening or depressing thoughts by asking themselves what the other possible interpretations of the situation are; to **T**est out what evidence there is for the threatening or depressing outcome and the other, more benign possible outcomes; and to **R**eward themselves for testing out the less dysfunctional interpretation of the situation.

Home–school liaison. Where factors within the school environment maintain children’s difficulties or where children show school-based problems, liaison with the school is vital. The most effective way to conduct school liaison is to meet with the child’s teacher and parents, outline the formulation of the problem in a tentative way, check that this is accepted by the teacher and parents, and then explore options for action or suggest a particular way in which the school and parents may jointly contribute to the resolution of the child’s problems. A home–school reporting system for use with hyperactive children is described in Chapter 11, and the way in which the school may be involved in the management of school refusal is described in Chapter 12.

Troubleshooting resistance. It is one of the extraordinary paradoxes of clinical psychology that clients go to considerable lengths to seek professional advice on how to manage their difficulties and often do not follow through on such advice or other responsibilities entailed by the treatment contract. This type of behaviour has traditionally been referred to as non-compliance or resistance. Accepting the inevitability of resistance and developing skills for managing it are central to the effective practice of clinical psychology (Anderson & Stewart, 1983).

Clients show resistance in a wide variety of ways. Resistance may take the form of not completing tasks between sessions, not attending sessions or refusing to terminate the therapy process. It may also involve not co-operating during therapy sessions. For clients to make progress with the resolution of their difficulties the therapist must have some systematic way of dealing with resistance. First, describe the discrepancy between what clients agreed to do and what they actually did. Second, ask about the difference between situations where they managed to follow through on an agreed course of action and those where they did not. Third, ask what they believed blocked them from making progress. Fourth, ask if these blocks can be overcome. Fifth, ask about strategies for getting around the blocks. Sixth, ask about the pros and cons of these courses of action. Seventh, frame a therapeutic dilemma which outlines the costs of maintaining the status quo and the costs of circumventing the blocks.

When resistance is questioned, factors that underpin it are uncovered. In some instances unforeseen events – acts of God – hinder progress. In others, the problem is that the clients lack the skills and abilities that underpin resistance. Where a poor therapy contract has been formed, resistance is usually due to a lack of commitment to the therapeutic process. Specific convictions which form part of clients' individual, family or culturally based belief systems may also contribute to resistance, where the clients' values prevent them from following through on therapeutic tasks. The wish to avoid emotional pain is a further factor that commonly underpins resistance. Finally, transference may also contribute to resistance. This issue was discussed earlier in this chapter.

Questioning resistance is only helpful if a good therapeutic alliance has been built. If clients feel that they are being blamed for not making progress, then they will usually respond by pleading helplessness, blaming the therapist or someone else for the resistance, or distracting the focus of therapy away from the problem of resistance into less painful areas. Blaming, distracting or pleading helplessness often elicit countertransference reactions on the therapist's part which compound rather than resolve the therapeutic impasse. The commonest of these is persecuting the family, which has already been mentioned in the section on transference and countertransference.

Co-ordinating multi-disciplinary input. Complex case management plans require a designated key worker, a clear system for monitoring and recording the progress of the plan, and a system where members of the professional network and the family network regularly review progress and deal with co-ordination difficulties. In writing this text, I have addressed most of the practice issues to psychologists who will be designated key workers or case managers. Where psychologists adopt this role, a paper-based or computer-based system for keeping track of multi-systemic intervention programmes is vital if such programmes are not to flounder. A front sheet should be placed in the file or on the database that specifies the following points:

- the name of each sub-component of the programme (e.g. social skills training, family therapy, speech therapy)
- a very brief statement of the goal for each component (e.g. develop friendship skills, improve home-based conduct problems)
- the names of the professional responsible for implementing the sub-components
- the number of sessions and dates of these (if that is feasible)
- the review dates for the overall multi-systemic programme
- the case manager or key worker responsible for convening review meetings.

With complex cases, review meetings for the network of involved professionals are particularly important since they provide a forum within which all involved professionals may share information and strive to retain a shared view of the case formulation, goals and management plan. Without a shared view, the opportunities for synergistic service delivery may be lost.

When convening a review meeting, particularly where difficulties have developed in the co-ordination and delivery of the agreed multi-systemic programme, set clear goals. Such goals typically include clarifying or refining the formulation and agreeing on roles and responsibilities. Open review meetings with introductions, if any team members have not met, and set the agenda and the rules for participation clearly. Make sure that everyone gets a fair hearing by helping the reticent to elaborate their positions and the talkative to condense their contributions. Summarize periodically to help members maintain focus. Above all, retain neutrality by siding with no one and curiously inquiring about each person's position. Use time-out, if necessary, to integrate contributions, refine the formulation and elaborate options for action. Once the meeting accepts the refined formulation, request a commitment to develop or refine the action plan. Then work towards that by examining options and agreeing on which team members are responsible for particular parts of the programme. Minute all agreements and agree on further review dates.

When contributing to a review meeting, prepare points on your involvement in the case, your hypotheses and plans. Use slack time at the beginning of the meeting or during the tea break to build good working alliances with team members. Always introduce yourself before making your first contribution, if you are new to the team. Outline your involvement first and hypotheses and plans later. Make your points briefly and summarize your points at the end of each major contribution. When you disagree, focus on clarifying the issue, not on attacking the person with whom you disagree. Keep notes on who attended the meeting, the formulation and the plan agreed. If you have unresolved ambivalent feelings after the meeting, discuss these in supervision. A fuller account of convening and contributing to network meetings is given elsewhere (Carr, 1995). A useful account of multi-disciplinary teamwork is given in Byrne and Onyett (2010).

Stage 4: disengaging or re-contracting

The process of disengagement begins once improvement is noticed. The interval between sessions is increased at this point. The degree to which goals have been met is reviewed when the session contract is complete or before this, if improvement is obvious. If goals have been achieved, the family's beliefs about the permanence of this change is established. Then the therapist helps the family construct an understanding of the change process by reviewing with them the problem, the formulation, their progress through the treatment programme and the concurrent improvement in the problem. Relapse management is also discussed (Witkienwitz & Marlatt, 2007). Family members are helped to forecast the types of stressful situations in which relapses may occur, their probable negative reactions to relapses, and the ways in which they can use the lessons learned in therapy to cope with these relapses in a productive way. Disengagement is constructed as an episodic event rather than as the end of a relationship. This is particularly important when working with families where members have chronic problems. In some instances, the end of one therapeutic contract will lead immediately to the beginning of a further contract. This subsequent contract may focus on the original child-centred problems, marital difficulties or individual work for the adults in the family. Referral to other therapists or agencies for this further work may be appropriate. If goals are not reached, it is in the clients' best interests to avoid doing *more of the same* (Segal, 1991). Rather, therapeutic failures should be analysed in a systematic way. The understanding that emerges from this is useful both for the clients and for the therapist. From the clients' perspective, they avoid becoming trapped in a consultation process that maintains rather than resolves the problem. From the therapists' viewpoint, it provides a mechanism for coping with burnout that occurs when multiple therapeutic failures occur.

Failures may occur for a number of reasons. First, they may occur because of the engagement difficulties. The correct members of the child's network may not have been engaged. For example, where fathers are not engaged in the therapy process, dropout is more likely. The construction of a formulation of the presenting problem which does not open up possibilities for change or which does not fit with the family's belief systems is a second possible reason for failure. A third reason why failure occurs may be that the case management plan was not appropriately designed, the therapeutic alliance was poorly built or the psychologist had difficulties in offering the family invitations to complete the therapeutic tasks. Problems with handling families' reservations about change, and the resistance that this may give rise to, is a fourth and further source of failure. Disengaging without empowering the family to handle relapses is a fifth possible factor contributing to therapeutic failure. A sixth factor is countertransference. Where countertransference reactions seriously compromise therapist neutrality and the capacity to join in an empathic way with each member of the problem system, therapeutic failure may occur. Finally, failure may occur because the goals set did not take account of the constraints within which family members were operating. These constraints include biological factors such as illness, psychological factors such as intellectual disability, economic factors such as poverty, social factors such as general life stress, and broader sociocultural factors such as minority-group membership. Factors that influence therapy outcome identified in meta-analyses of the treatment outcome literature are summarized in Table 3.11, and a consideration of these may be useful in the analysis of treatment failures. The analysis of treatment failure is an important way to develop therapeutic skill.

In some cases psychologists may find it necessary to seek supervision for managing loss experiences associated with disengaging from both successful and unsuccessful cases. Where therapy has been unsuccessful, disengagement may lead to a sense of loss of professional expertise. Loss of an important source of professional affirmation and friendship are often experienced when therapists disengage from successful cases.

Summary

The consultation process is developmental and recursive. It involves the stages of planning, assessment and formulation, case management, and disengagement or re-contracting. In the planning stage, network analysis provides guidance on who to invite to the intake interview. The minimum sufficient network necessary for an assessment to be completed includes the customer, the legal guardians, the caregivers and the referred child. In planning an agenda, a routine intake interview and a core test battery may be supplemented by questions and tests which take account of the specific features of the case. The routine interview and test battery should cover the child’s individual physical, cognitive and psychosocial developmental history and an assessment of the family’s development and functioning with particular reference to parent–child relationships, inter-parental relationships and the wider social network within which the family is embedded. Assessment of unique features of the case should be based on a preliminary formulation which contains hypotheses about predisposing, precipitating, maintaining and protective factors associated with the presenting problems. To develop a thorough understanding of the presenting problems and related issues, a number of different types of assessment meetings may be conducted. These may include some or all of the following depending upon the case: child-centred assessment interviews and testing sessions, parental interviews, nuclear family interviews, school interviews, extended family interviews with other involved professionals, clinical team meetings, professional network meetings, and statutory case conferences.

Establishing a contract for assessment, working through the assessment agenda and recursively refining the preliminary formulation in the light of the information obtained, dealing with engagement problems, building a therapeutic alliance and giving feedback are the more important features of the assessment and formulation stage which may span a number of sessions. *All other features of the consultation process should be subordinate to the working alliance*, since without it clients drop out of the consultation process. The working alliance with the child, parents and network members should be a collaborative partnership characterized by warmth, empathy and genuineness, respectful curiosity and an invitational approach. The inevitability of transference and countertransference reactions within the therapeutic relationship should be acknowledged. Towards the end of the assessment phase a formulation is constructed. A formulation is a mini-theory explains why the presenting problems developed, why they persist, what protective factors either prevent them from becoming worse or which may be enlisted to solve the presenting problems. The formulation which is collaboratively discussed with the family provides the basis for a therapeutic contract. The level of detail used in discussing the formulation needs to be matched to the family's cognitive ability to comprehend it and their emotional readiness to accept it. As part of the alliance-building process it is usually best if protective factors are considered first and linked to possible case management options. Most case management options fall into the following categories: no immediate action, provide psychoeducation and reassess periodically, refer to another professional within the team, refer to another professional or residential facility outside the team, offer a low-intensity focal psychological intervention, and offer a high-intensity multi-systemic intervention.

A therapeutic contract based on the formulation begins with goal setting. Clear, realistic, visualized goals that are fully accepted by all family members and that are perceived to be moderately challenging are crucial for effective therapy. The costs and benefits of goals to involved members of the network must be considered as part of the contracting process. Case management and treatment plans for children's and adolescents' problems should be premised on a family-based approach. Such plans may include psychoeducation, monitoring problems, communication and problem-solving skills training and arranging the provision of support for children and parents. Treatment may also involve coaching in using reward systems and teaching children behavioural control skills. Coaching in tension reduction and cognitive coping strategies for children may be appropriate in other instances. In cases where the school or other professionals and agencies are involved the co-ordination of multi-disciplinary and school input may be required. Complex case management plans require a designated key worker, a clear system for monitoring and recording the progress of the plan, and a system where members of the professional network and the family network regularly review progress and deal with co-ordination difficulties. To work within such a system, skills for both managing and contributing to network meetings are required. Inevitably, co-operation difficulties occur during therapy and case management. These may be due to a lack of skills on the client's part or to complex factors which impinge on clients' motivation to resolve their difficulties. A systematic method for analysing resistance and resolving it is required to complete case management plans. Disengagement is considered when the end of the therapeutic contract is reached. If goals have not been achieved, this should be acknowledged and referral to another agency considered. Where goals have been reached, relapse management and the options for future follow-up sessions are considered. In cases where further child problems or adult problems have emerged, a new contract for work on these issues may be offered.

Exercise 4.1

Work in teams of two to four members. Decide who to invite and what to ask in a first interview with the following case. In conducting a network analysis, first draw a genogram. In deciding what to ask, construct a preliminary formulation containing hypotheses about predisposing, precipitating, maintaining and protective factors.

Dear Team: Re: Paul O'Brien (aged 10).

Paul has been giving his mother a lot of grief recently since he came out of hospital. He was admitted to Church Street about two months ago following an accident in which he broke an arm and a leg after falling off the scaffolding in a building site in Howth. He is back at school and on a walking stick. He can't manage crutches because of his broken arm. The main problem seems to be defiance and disobedience. He is also occasionally tearful at school and has been sent home once or twice because the teachers felt he was not fit for school.

He is one of three children. His parents were both previously married and he lives with his natural sister, Olive, and his stepfather's son, Jim. They have been together for about four years and most of the upheaval following the separations and all that seems to have passed.

They all get on fine, but Paul's problems are a major worry for his mother, largely because they are getting worse rather than improving as time goes by. Please assess and advise.

Exercise 4.2

Work in pairs. Familiarize yourself with the material presented in Tables 4.2–4.6. For each of the skills (communication, problem solving, supportive play, reward systems and behavioural control), role-play explaining the skill to your partner as if he or she were the parent of a referred child. Ask your partner for feedback on how you might improve your presentation. Reverse roles and repeat the exercise.

Further reading and resources

Carr, A. (2012). *Family therapy: Concepts, process and practice* (3rd ed.). Chichester: Wiley.

Chorpita, B., & Weisz, J. (2009). *MATCH-ADTC. Modular approach to therapy for children with anxiety, depression, trauma or conduct problems*. Satellite Beach, FL: PracticeWise.

Corcoran, K., & Fischer, J. (2013). *Measures for clinical practice: A sourcebook. Volume 1: Couples, families, and children. Volume 2: Adults* (5th ed.). New York: Oxford University Press. Contains full reproductions of many useful brief assessment instruments such as those listed in Table 4.1 along with norms, scoring instructions and basic psychometric information.

Ehrenreich-May, J., & Chu, B. (2014). *Transdiagnostic treatments for children and adolescents. Principles and practice.* New York: Guilford.

Friedberg, R., McClure, J., & Hillwig Garcia, J. (2009). *Cognitive therapy techniques for children and adolescents: Tools for enhancing practice.* New York: Guilford.

Assessment resources websites

The children and young people's improving access to psychological therapies – Tracking outcomes resource pack: http://www.iapt.nhs.uk/silo/files/childrenandyoungpeoplesiapttrackingoutcomesresourcepack-v132.pdf

GL Assessments (tests): http://www.gl-assessment.co.uk/

Mental health outcome measures for children and young people: http://www.ucl.ac.uk/ebpu/docs/publication_files/mental_health_outcome_measures_for_children_yp

Pearson (tests): http://www.pearsonclinical.co.uk/Psychological assessment resources (tests): http://www.parinc.com/

Speechmark (self-help): http://www.speechmark.net/

Western Psychological Services (tests): www.wpspublish.com/

Fact sheets

Minnesota Association for Children's Mental Health Fact Sheets: http://www.macmh.org/free-macmh-downloads/fact-sheets/

Royal College of Psychiatrists. (2013). *Mental health and growing up. Fact sheets for parents, teachers and young people* (4th ed.). London: Gaskell. Fact sheets on common psychological problems given in this book may also be downloaded at http://www.rcpsych.ac.uk/expertadvice/youthinfo/mhgpfactsheetsindex.aspx

Chapter 5

Report writing

Psychologists have a duty to their clients to maintain confidentiality, and so all reports about clients should managed with this as a central guiding principle. In all circumstances where psychologists wish to exchange information with other members of the client's professional or social network, the client's consent should be sought. Confidentiality may be broken only in circumstances where to maintain confidentiality would place the client or some other person in danger. Such circumstances are discussed in Chapter 16 which deals with self-harm and Chapters 19–21 where child abuse is addressed.

Report writing is central to the practice of clinical child psychology. The limitations of our memories require us to keep detailed accounts of complex information about our clients. An accurate account of information gained in interviews, testing sessions and meetings with other professionals is the basis on which a formulation is constructed and a treatment plan developed. Records also help us to keep track of progress with case management plans. At the end of an episode of consultation, a summary of the episode provides information that may be useful to ourselves or our colleagues in helping clients should they return for a further episode of consultation in the future.

During the process of assessment and case management, other members of the professional network such as colleagues from our team, family doctors, referring agents, teachers, and other involved professionals may require verbal or written reports. Clients and members of the family system may also benefit from having written communication about aspects of the consultation process. In some cases it may be necessary to write specialized reports for courts or as assignments for clinical psychology training programmes. On an annual basis it may be necessary to write a service report. In this chapter guidelines for writing the following types of reports will be given:

- progress notes
- comprehensive assessment reports
- end-of-episode case summaries
- verbal reports to clients and colleagues
- correspondence to clients and colleagues

- court reports
- case study reports
- annual service reports.

A guideline which applies to all forms of reports is to always write in such a way that you would be prepared to give your case files or service reports to clients and their families to read. This guideline helps us to inhibit the tendency to lapse too deeply into the pejorative deficit-discourse which unfortunately holds considerable sway in the mental health field.

Progress notes

In making progress notes about clinical cases five categories of information should always be recorded. These are

- **T**ime
- **A**ttendance
- **R**eview
- **A**genda
- **P**lan.

The first letters of these category names form the acronym TARAP. The issues covered by each category will be expanded upon shortly.

Time. This category includes the date, day, time and duration of the session. It may be useful to also include the number of the session, particularly if working within a time-limited contract for assessment or intervention. Often in clinical psychology, time-limited contracts of 6, 10 or 20 sessions are used.

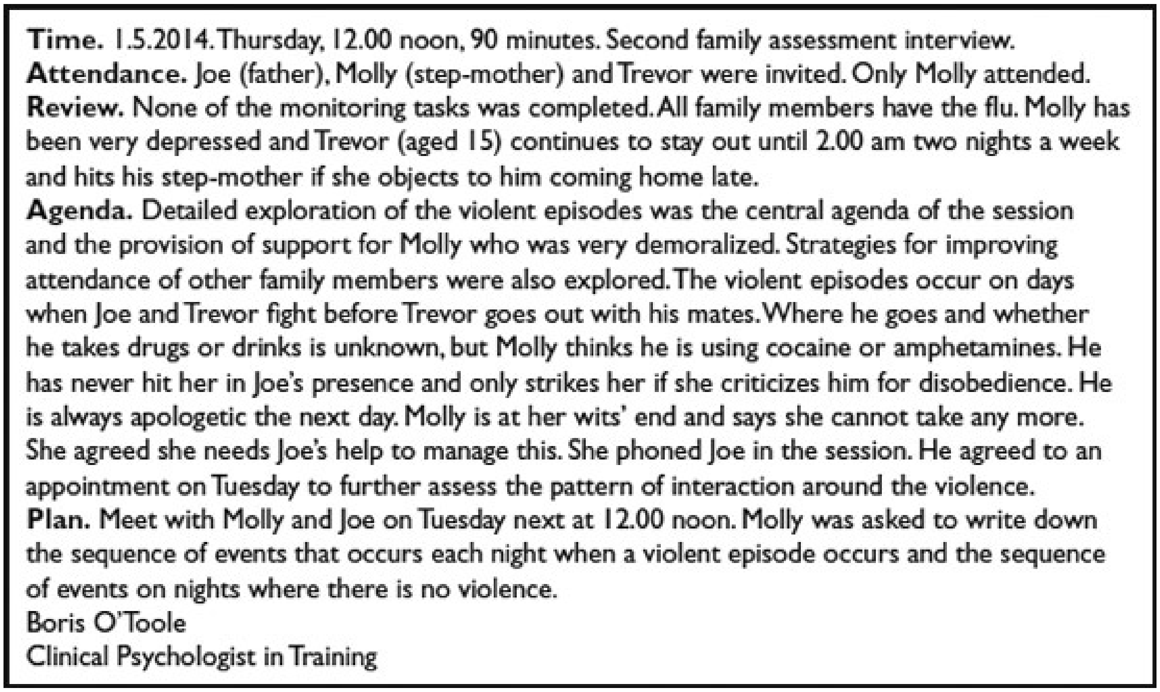
Attendance. The people who attended the session and those who were invited and did not attend may be noted in this category. In the case of total non-attendance (or DNAs as they are often called) it is important to record what steps were taken to inquire about reasons for non-attendance, especially where there are risks of self-harm or child abuse.

Review. A review of significant events that may have occurred since the previous session are recorded here. Changes in the presenting problem and factors related to its resolution or maintenance should be reviewed. Inquiries should also routinely be made about completion of assessment tasks such as self-monitoring and treatment tasks such as practicing particular parent–child interaction skills. In the case of an initial session, changes that have occurred since the referral was made may be noted.

Agenda. Information about the main *content* issues and the main *processes* which occurred may be recorded in this category. In assessment sessions common content issues are child and family development, problem formation and resolution, or psychometric testing procedures and results. In therapy sessions the types of interventions used typically constitute the content of sessions. Process issues may include the quality of the working alliance and the impact of this on assessment and intervention procedures.

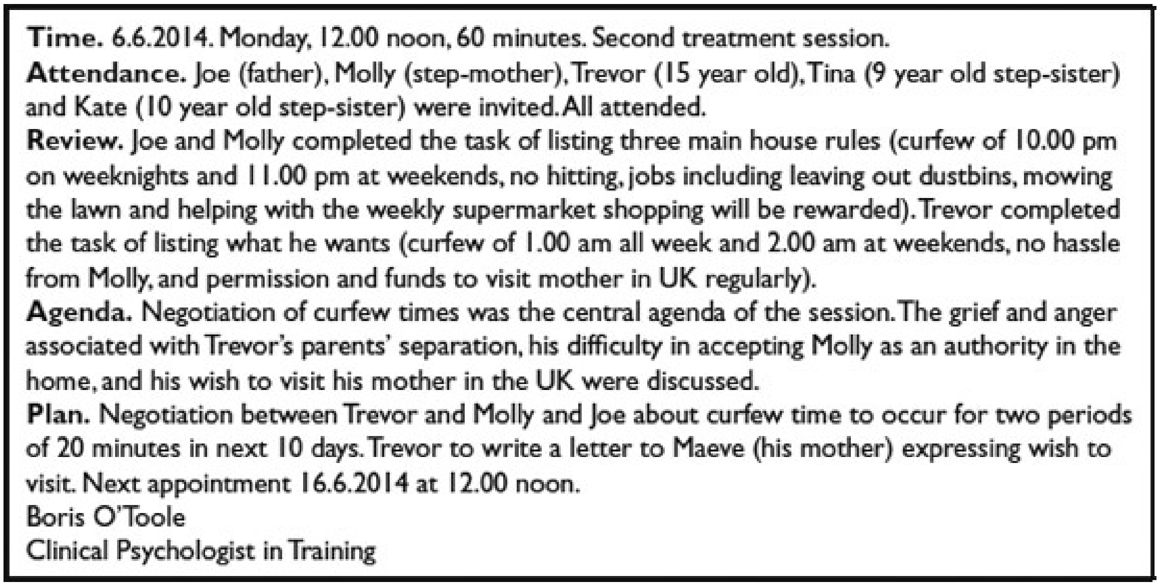
Plan. Future action for clients, network members and the psychologist may be noted in this category. Assessment or treatment tasks that clients have been invited to complete may be noted here. Network members invited to the next session or referral of family members to other professionals for consultation also deserve mention at this point in the progress notes. Assessment procedures or particular therapy-related themes which may be included on the agenda for the next session may also be noted in this category along with hypotheses requiring further exploration.

The TARAP format for making progress notes is appropriate for assessment and treatment sessions with clients and members of their family networks. It is also useful to adhere to this format in recording information from case conferences and team meetings. Examples of assessment and treatment progress notes are presented in Figures 5.1 and 5.2, respectively.



Time. 1.5.2014. Thursday, 12.00 noon, 90 minutes. Second family assessment interview.
Attendance. Joe (father), Molly (step-mother) and Trevor were invited. Only Molly attended.
Review. None of the monitoring tasks was completed. All family members have the flu. Molly has been very depressed and Trevor (aged 15) continues to stay out until 2.00 am two nights a week and hits his step-mother if she objects to him coming home late.
Agenda. Detailed exploration of the violent episodes was the central agenda of the session and the provision of support for Molly who was very demoralized. Strategies for improving attendance of other family members were also explored. The violent episodes occur on days when Joe and Trevor fight before Trevor goes out with his mates. Where he goes and whether he takes drugs or drinks is unknown, but Molly thinks he is using cocaine or amphetamines. He has never hit her in Joe's presence and only strikes her if she criticizes him for disobedience. He is always apologetic the next day. Molly is at her wits' end and says she cannot take any more. She agreed she needs Joe's help to manage this. She phoned Joe in the session. He agreed to an appointment on Tuesday to further assess the pattern of interaction around the violence.
Plan. Meet with Molly and Joe on Tuesday next at 12.00 noon. Molly was asked to write down the sequence of events that occurs each night when a violent episode occurs and the sequence of events on nights where there is no violence.
Boris O'Toole
Clinical Psychologist in Training

Figure 5.1 Example of progress notes from an assessment session



Time. 6.6.2014. Monday, 12.00 noon, 60 minutes. Second treatment session.
Attendance. Joe (father), Molly (step-mother), Trevor (15 year old), Tina (9 year old step-sister) and Kate (10 year old step-sister) were invited. All attended.
Review. Joe and Molly completed the task of listing three main house rules (curfew of 10.00 pm on weeknights and 11.00 pm at weekends, no hitting, jobs including leaving out dustbins, mowing the lawn and helping with the weekly supermarket shopping will be rewarded). Trevor completed the task of listing what he wants (curfew of 1.00 am all week and 2.00 am at weekends, no hassle from Molly, and permission and funds to visit mother in UK regularly).
Agenda. Negotiation of curfew times was the central agenda of the session. The grief and anger associated with Trevor's parents' separation, his difficulty in accepting Molly as an authority in the home, and his wish to visit his mother in the UK were discussed.
Plan. Negotiation between Trevor and Molly and Joe about curfew time to occur for two periods of 20 minutes in next 10 days. Trevor to write a letter to Maeve (his mother) expressing wish to visit. Next appointment 16.6.2014 at 12.00 noon.
Boris O'Toole
Clinical Psychologist in Training

Figure 5.2 Example of progress notes from a treatment session

Comprehensive assessment report

In Chapter 4 it was mentioned that distinctions may be made between the assessment and case management stages of the consultation process. The comprehensive assessment report is typically written at the end of the assessment stage and a basis for case management. This type of report represents a summary and integration of information obtained throughout the assessment process which may have spanned a number of sessions and include a review of reports from other professionals. The comprehensive assessment report is written primarily for the psychologist and members of the psychologist's team. All other reports and correspondence are based on this document. Usually it should include sections on the following issues.

Child demographic information. The child's name, date of birth and address should be given here along with names, addresses and contact numbers for parents, legal guardians and foster parents where relevant.

Referral information. This section includes the referring agent's name, address and contact number, and the central problems that led to the referral or the principal referral question. It is also useful to include here details of significant members of the child's professional network such as the names, addresses and contact numbers of the child's school and family doctor. It is also useful to include the name of the person who instigated the referral.

Sources. The sources of information on which the report is based should be listed. These sources include all assessment sessions with dates and a note of who attended the sessions. If previous reports by psychologists, school teachers, physicians, social workers or other professionals were used these, too, should be noted. Where a child presents with school problems, ideally two or three recent school reports should be consulted to assess change in the child's behaviour over time.

History of the presenting problem. This section should include an account of how the problem developed and previous attempts to solve the presenting problem. The role of other involved professionals may be mentioned here. If medical, psychiatric or social work reports are available salient points from these may be summarized in this section.

The child's developmental history. Reference should be made to significant events or abnormalities in physical, cognitive and psychosocial development. Otherwise it is sufficient to note that development was within normal limits.

The family history and a genogram. Family membership, family members characteristics, parent–child relationships, parental co-operation, family stresses and supports, significant family relationship patterns, and significant achievements or difficulties in managing family transitions over the lifecycle should all be mentioned in this section.

Current cognitive abilities. Reference may be made here to the results of psychometric assessments of the child's abilities, to academic progress as outlined in at least two recent school reports, and to reports from speech therapy or other sources relevant to the child's cognitive development. In presenting psychometric test results include the following information:

- the tests used
- the number and duration of testing sessions
- the impact of co-operation; physical factors (noise, cold, crowding, etc.), extraneous psychosocial factors (e.g. exhaustion or fear of childcare proceedings), and medication on the validity of the results
- an interpretation of the results specifying the child's overall ability level, the presence of specific or general learning difficulties, and attainment levels for reading, language and other areas if these were assessed.

Where test results are broadly within the normal range, keep this section brief. Where the full pattern of test results is critical to the formulation and management of the case, a complete table of test results may be appended to the report, and a detailed analysis of results may be given in this section. A fuller account of cognitive assessment, learning difficulties and guidelines for writing reports in such cases is given in Chapter 8.

Current psychosocial adjustment. Reference may be made here to the outcome of individual sessions with the child and to parents' and teachers' reports of the child's current behaviour at home and at school. Scores on standardized instruments such as the Child Behaviour Checklist or the Teacher Report Form may be given in this section along with the results of objective or projective personality tests.

Formulation. A brief restatement of the central problems should be given here along with an explanation of how they developed based on salient points drawn from previous sections of the report. Reference should be made to predisposing, precipitating and maintaining factors. In addition protective factors and family strengths that have a bearing on the prognosis should be mentioned. In some situations it may be useful to give a differential diagnosis and a diagnosis before a formulation is offered.

Recommended case management plan. A prioritized list of options for case management may be listed here. Taking no further action, periodic reassessment, referral to another team member for consultation, referral elsewhere for consultation, focal low-intensity intervention or high-intensity multi-systemic intervention should all be considered. Where a multi-systemic intervention programme is central to the management plan, details of the components of the programme and the professionals responsible should be indicated. A key worker responsible for reviewing progress at designated times should be specified.

Signature. Most agencies have a policy about signing reports. Unless there are ethical reasons for not doing so, follow this policy, particularly if you are still in training. If there is no policy in your agency and you are in training, write your name and degrees on one line and underneath Clinical Psychologist in Training (in Ireland and the UK) or Clinical Psychologist Intern (in Canada and the US). In addition, the supervisor's name, degrees and appointment is also placed on the report and co-signed.

Comprehensive assessment reports are usually written up by the key worker for the case. An example of such a report is presented in Figure 5.3.

Under some circumstances it may be useful to use computer-aided systems for report writing. Details of some such systems are included at the end of this chapter.

End-of-episode case summary

In Chapter 4 it was noted that psychological consultation is a developmental and recursive process involving the stages of planning, assessment, case management and re-contracting or disengagement. When clients conclude the re-contracting or disengagement stage, an end-of-episode case summary may be written. This report summarizes progress made as a result of implementing the case management plan. An end-of-episode case summary should contain the following sections:

- the formulation
- the implementation of the case management plan
- the outcome.

The formulation outlined in the comprehensive assessment report may be restated in the first section of the end-of-episode case summary. In the second section, a summary of the case management plan that was implemented should be given. It is also useful to note here any co-operation or co-ordination difficulties that occurred and how various resistances within the client's network were managed. In cases which did not respond to treatment, a hypothesis about the reasons for treatment failure should be given. If any new information came to light that led to the original formulation being substantially revised, this should be noted. In the final section of an end-of-episode summary, the degree to which specific treatment goals were met should be noted along with other positive or negative changes. Follow-up plans for review sessions or relapse management should also be noted. Where re-contracting for further work occurs, details of this should be recorded. An example of an end-of-episode case summary report is given in Figure 5.4.

PSYCHOLOGICAL REPORT

Child demographic information.

Trevor Sullivan (DOB 3.3.1999). 222 Windgate Road, Howth, Dublin 13. Phone: 83258888
The following people live at the above address
Father: Joe Sullivan
Step-mother: Molly Rourke
Step-sisters: Kate and Tina Rourke
Trevor's mother Maeve Sullivan lives at 36, The Rise, Luton, UK. Phone: 0044–1356–334412.

Referral information.

Trevor was referred by Dr Gilhooley, 33 Sutton Cross, Sutton, Dublin 13. Phone: 832572723.
The referral was marked urgent and dated 14.4.2014. The principal concern, expressed by his father Joe, was Trevor coming home at 2.00 am, 3 hours after he was due.
Trevor is a pupil at the Bracken Park High School, Shieldrake Road, Sutton. The year head is Mr Burke. Phone 832565654.
Joe gave written consent for the school to be contacted for an academic report and a behaviour checklist to be completed.

Sources.

This assessment report is based on five assessment interviews.
25.4.2014. 12.00 noon, 90 minutes. Trevor, Joe and Molly attended as requested.
29.4.2014. 4.30 pm, 30 minutes. Phone interview with Maeve.
1.5.2014. 12.00 noon, 90 minutes. Molly attended alone. Other family members were invited but could not come due to illness.
6.5.2014. 12.00 noon, 60 minutes. Trevor, Joe, Molly, Tina and Kate attended as requested.
9.5.2014. 10.00 am, 120 minutes. Trevor attended alone for psychometrics (WISC-IV and WIAT-III) and a child-centred interview as requested.
Two school reports (September 2013 and January 2014) were provided by Bracken Park, and Mr Burke completed a behaviour checklist (Achenbach's Teacher Report Form). I also spoke with him on the phone on 8.5.2014.
Joe completed the intake form and the Child Behaviour Checklist.

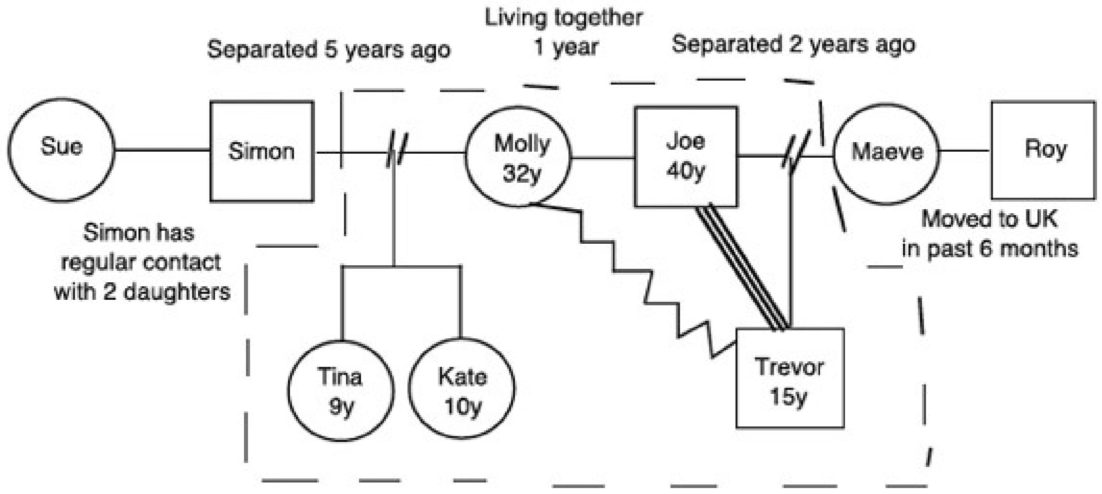
History of the presenting problem.

The problem began in January 2014 shortly after Trevor's mother Maeve moved to the UK with her new partner, Roy McFadden. Trevor became very withdrawn at home and gradually began to stay out later at night. He also stopped talking to Molly, his step-mother, for about a month in February. Joe, Trevor's father, has tried to talk Trevor round, with little success. He has also tried ignoring the problem, which also has had little impact. Molly has tried confronting Trevor, but this has led to her being hit by Trevor, so she has backed off now.

Developmental history.

Trevor's physical, cognitive and psychosocial development have broadly been within normal limits. He was hospitalized briefly at the age of 5 when he broke his arm after falling off a bicycle. He was always an only child and adjusted well to this status. Trevor could make and maintain friendships satisfactorily. His transitions into school and from primary to secondary school all occurred without incident. In the year prior to his parents' separation he became quite withdrawn, but once the separation occurred and regular access was arranged this withdrawal, which was largely evident at home, ceased.

Genogram.



Family history.

The family composition is shown in the genogram. Trevor is the only child of Joe and Maeve, who separated 2 years ago following a period of gradual distancing. During the year or two prior to the separation, Joe was intensely involved with his work and Maeve had an affair with Roy. For about 18 months following the separation Maeve and Roy lived near Joe, who retained custody of Trevor by agreement. Regular access occurred and this was satisfactory. During this period Joe met Molly and she and her two daughters moved in with Joe and Trevor. This new arrangement worked fairly well until last January, when Maeve and Roy moved to the UK, because Roy's company transferred him to Luton. There has been little contact between Maeve and Trevor. However, she sent him a birthday card and some cash for his recent birthday. Trevor has been deeply hurt by his mother's move to the UK, and his sadness and anger about this find expression in his defiance of Joe and Molly's rules about 11.00 pm curfew, his aggression towards Molly, and his refusal to respond to Maeve's attempts to set up access visits. Joe, Maeve and Molly have not yet found a way to co-operatively support Trevor during this difficult period and also to set limits on his defiant and aggressive behaviour. However, relationships between Joe, Maeve and Molly are sufficiently flexible to indicate that co-operation about these issues is a possibility.

Tina and Kate have formed non-conflictual relationships with Trevor and Joe and have regular access visits with their father. However, the two girls have moved schools to St Frances in September and are not settling in well. Both have had episodes of school refusal in the past 3 months.

While Joe's physical and mental health have been fine over the past year, he has been exhausted in the past couple of months because he has been working double shifts on a regular basis. Molly has a long-standing recurrent mood disorder and she has been particularly low in the past 2 months. Two particular stresses that have exacerbated her low mood in the past couple of months are the violent exchanges with Trevor and Tina and Kate's school problems.

Maeve is working long hours and has been unable to arrange a 3-day visit to Ireland to meet with Trevor, who has said he will not talk to her if she visits.

Cognitive abilities.

In a single 2-hour session the WISC-IV and the reading comprehension and spelling sub-tests of the WIAT-III were administered to Trevor, who was 15 years and 2 months at the time of the assessment. He co-operated well with the assessment procedures, so the obtained results may be interpreted as a valid estimate of his abilities. On the WISC-IV, his full scale IQ of 115 fell within the high average range of general intellectual abilities (110–119). His scores on the four main factors of the WISC-IV also fell within the high average range and his sub-test scatter on the WISC-IV was unremarkable. On the WIAT-III his reading comprehension and spelling scores were 118 and 117, respectively. These were consistent with his overall ability level. An examination of two recent school reports showed that Trevor has consistently been in the top third of his class for most academic subjects and has a particular aptitude for languages.

Psychosocial adjustment.

On the Child Behaviour Checklist, which was jointly completed by Joe and Molly, and on the self-report equivalent of this checklist (the Youth Self-Report Form), Trevor scored in the clinical range (above a T-score of 63) on both the internalizing and externalizing scales. However, on the Teacher Report Form, his scores on these scales were within the normal range. These results indicate that at home Trevor, his step-mother and father agree that he is showing clinically significant levels of conduct problems (aggression and defiance) and emotional problems (withdrawal and low mood). However, at school these conduct and emotional problems are not evident. This conclusion is consistent with the results of an individual interview with Trevor, who said that at school he can escape from 'the hassles of home'. In an individual interview Trevor also described how he interpreted his mother's move to England as a personal rejection, for which he finds it difficult to forgive her.

Formulation.

Trevor is a 15 year old boy who in the past 6 months has been refusing to come in at night on time and who has been physically aggressive to his stepmother, Molly, when confronted about this defiance. Trevor has also shown low mood and withdrawal at home. These problems were precipitated by his mother's departure to the UK in January. The problems are an expression of his sadness and anger at his mother's departure. Predisposing factors include his parents' separation 2 years ago and the formation of the blended family in which he now resides a year ago. The problems are maintained by certain difficulties that have prevented Joe, Maeve and Molly from reaching a co-operative plan about how best to manage Trevor. These difficulties include Joe's recent exhaustion associated with working double shifts; Molly's recurrent mood problems, which are currently worse because of her daughters' problems in settling into school and the fact that Trevor has hit her on a number of occasions; and Maeve's work commitment which prevents her from visiting Trevor. The problems are also maintained by Trevor's interpretation of his mother's move to the UK as rejection and by his inability to deal with his feelings of grief and anger in a socially appropriate way. Looking at protective factors, Trevor's adjustment prior to this episode was within normal limits. Also Joe, Maeve and Molly are committed to solving this difficulty and making the new family arrangement work. Trevor has shown signs of remorse for his violence to Molly. And both Joe and Molly support Trevor's need to maintain a relationship with his mother in the UK. Also, despite the family-based difficulties, Trevor's school performance is within normal limits.

Recommended case management plan.

The family will be offered a series of six sessions. The suggested aims of this family work will be negotiating house rules and a system for implementing these that is acceptable to Joe, Molly and Trevor; helping Trevor, Molly and Joe develop a way to avoid future violent episodes; and helping Maeve, Trevor, Joe, and Molly find a way for Trevor and his mother to have regular contact. It may be necessary to invite Maeve to at least one session. In addition, Trevor will be offered a place in our adolescent group (which will be starting in July) to focus on anger management and examine his interpretation of his mother's move to the UK. The key worker for the case is Boris O'Toole. Progress review will occur in team meetings.

Boris O'Toole, BA, MSc
Clinical Psychologist in Training

Richard Kimbell, PhD, Reg Psychol AFPsSI, C Psychol AFBPsS
Consultant Clinical Psychologist

Figure 5.3 Example of a comprehensive assessment report

END-OF-EPISODE CASE SUMMARY

Trevor Sullivan (DOB 3.3.1999) 222 Windgate Road, Howth, Dublin 13. Phone: 83258888

Formulation.

Trevor is a 15 year old boy who, in the months prior to referral, was refusing to come in at night on time and who had been physically aggressive to his stepmother, Molly, when confronted about this defiance. Trevor had also shown low mood and withdrawal at home. These problems were precipitated by his mother's departure to the UK in January 2014. The problems seemed to be an expression of his sadness and anger at his mother's departure. Predisposing factors included his parents' separation 2 years prior to referral and the formation of the blended family in which he now resides. The problems were maintained by certain difficulties that prevented Joe, Maeve and Molly from reaching a co-operative plan about how best to manage Trevor. These difficulties included Joe's exhaustion associated with working double shifts, Molly's recurrent mood problems which were at referral worse because of her daughters' problems in settling into school and the fact that Trevor had hit her on a number of occasions, and Maeve's work commitments which prevented her from visiting Trevor. The problems were also maintained by Trevor's interpretation of his mother's move to the UK as rejection and by his inability to deal with his feelings of grief and anger in a socially appropriate way. There were also protective factors in this case. Trevor's adjustment prior to this episode was within normal limits. Joe, Maeve and Molly were committed to solving this difficulty and making the new family arrangement work. Trevor had shown signs of remorse for his violence to Molly. And both Joe and Molly support Trevor's need to maintain a relationship with his mother in the UK. Also, despite the family-based difficulties, Trevor's school performance was within normal limits.

Case management.

The family was offered a series of six sessions to work on negotiating house rules and a system for implementing these, helping Trevor, Molly and Joe develop a way to avoid future violent episodes, and helping Maeve, Trevor, Joe and Molly find a way for Trevor and his mother to have regular contact. Five sessions were held focusing on these three issues. In the third of these, Maeve flew over from Luton to Dublin. This was a turning point in the case. Access arrangements were agreed, and since then Trevor has flown to the UK on a bargain flight on two occasions using money he earns from doing household chores including painting the windows and rebuilding the patio. The violent episodes have not recurred. On those nights when he goes out, Trevor usually comes home on time.

Trevor attended the adolescent group for eight sessions. He used the group to ventilate his feelings about his mother leaving Ireland and adjusting to his current living arrangements. Part of this involved taking responsibility for hitting Molly, for which he expressed remorse.

Outcome.

While the problems that led to Trevor's referral have been resolved, Molly continues to suffer from a recurrent mood disorder and Joe is finding this difficult to live with. At the end of this episode of treatment Joe and Molly asked to be referred for couple therapy and this has been arranged.

Boris O'Toole, BA, MSc	Richard Kimbell, PhD, Reg Psychol AFPsSI, C Psychol AFBPsS
Clinical Psychologist in Training	Consultant Clinical Psychologist

Figure 5.4 Example of an end-of-episode case summary

Verbal reports

During the consultation process it may be necessary to give verbal reports to clients and colleagues in feedback sessions, team meetings and case conferences. In preparing verbal reports, first identify the audience to whom your report will be addressed. Is it a client, a social worker, a paediatrician, a psychiatrist, a speech therapist or a mixed group of professionals? Then, clarify what sort of question to which you believe they require an answer. Do they want to know if your assessment indicates a child has a learning problem, is at risk for abuse or has responded to treatment? From your progress notes or the comprehensive assessment report, abstract the points that you are confidently able to make to answer the question. If you are unable to answer the question on the basis of the available information, arrange interviews or testing sessions to obtain such information if this is feasible and within the remit of your professional role.

Then prepare the list of points you wish to make in the meeting to answer the inquiries you know or guess are of central concern to your audience. Frame the points in language and at a level of technical sophistication that will be optimally intelligible to the audience. So, for example, it may be useful to give detailed psychometric information in a verbal report to a neuropsychologist but of little use to give such information to an orthopaedic surgeon or occupational therapist. In some instances, you will be unable to offer valid information to other professionals. For example, in some cases, risk of child abuse is difficult to confidently assess and in others, intelligence is difficult to assess because of co-operation problems. In such instances it is important to report that you are unable to answer the questions posed.

When making a verbal report to any audience, state

- the question you aimed to answer
- the source of your information and your confidence in its reliability and validity
- the key pieces of information that answer the question (and no more).

If you are presenting information in a team meeting or case conference and do not know all of the participants, it is important to identify yourself as a clinical psychologist (or a clinical psychologist in training working under the supervision of a senior staff member).

If information presented by other professionals in a team meeting or case conference is inconsistent with your findings, think through the possible reasons for the discrepancy between the two sets of information before offering your opinion on this to the team or conference. Discrepancies between professional reports are common. The important issue to resolve is why the discrepancy occurred, not which view is correct and which is incorrect. Discrepancies may be due to the time and place where the assessment was conducted, the assessment or treatment methods used, the informants, the level of co-operation between the client and the professional and a wide range of other factors. Further guidelines for participating in team meetings were presented in Chapter 4 in the section on completing case management plans.

Correspondence with professionals

All correspondence should be written with the concerns of the recipient of the letter in mind. Before writing a letter, clarify what question the recipient would like answered. Common questions are:

- Has the client been placed on the waiting list or have they been assessed?
- Why is this child behaving in an unusual way and what can be done about it?
- Have you been able to help this child and family manage the problem?
- Should we be co-ordinating our input to this case?

Decide what precise pieces of information the recipients would like abstracted from your case file to answer their question. Judge in what level of detail and what degree of technical sophistication they would like such information. Account should be taken of their knowledge of developmental psychology, psychometrics, individual and family therapy and so forth. If any action will be required on their part, in response to your letter, decide exactly what it is that you are suggesting they do to help the client.

Routinely in most public service agencies, letters are written to referrers following the receipt of a referral to indicate that the referral has been placed on a waiting list. Letters are also written following a period of assessment to indicate the way the case has been formulated and the recommended case management plan. Finally letters are also written at the end of an episode of contact to inform the referrer of the outcome of any intervention programme.

After having talked with more than 1,000 professional recipients of psychologists' reports on both sides of the Atlantic over the past 35 years, I can draw one reasonably valid conclusion. Clinical psychologists' reports are too long and often the key information required by the referrer is buried under a mountain of unnecessary detail.

When a referral is received, it is sufficient to return a single-sentence letter indicating that the case will be placed on a waiting list and seen within a specified time frame. Following a preliminary interview or series of assessment sessions, it is sufficient to write a brief letter specifying the referral question, the assessment methods used, the formulation and the case management plan. A common mistake here is to send referrers (particularly family doctors) unwanted comprehensive assessment reports. It may be useful to conclude letters summarizing preliminary assessments by noting that a comprehensive report is available on request. An example of a letter to a family doctor summarizing a preliminary assessment is presented in Figure 5.5. In closing letters to referrers, it is sufficient to restate the initial question, the formulation, the case management plan, the degree to which it was implemented and the outcome. The text from an end-of-episode case summary may be used as basis for writing a closing note to a referrer.

Asking other professionals to follow a particular course of action in a letter is more likely to lead to confusion than to co-ordinated action. It is better practice to outline your formulation in a letter and invite other professionals to join you in a meeting to discuss joint action than to ask them to implement a programme you have already designed.

Correspondence with clients

Letters may be used to help clients remember what was said during consultation and to highlight key aspects of sessions. Case formulations, test results and instructions for completing specific tasks may all be given in written form. Letters also provide a medium for involving absent members of the family in the therapeutic process. For example, if a father or sibling is unable to attend a session, a letter may be sent summarizing the session and asking for the absent member's viewpoint. Letters may be used creatively as a medium for re-framing problems. For example, if parents view a child as intrinsically bad, and evidence comes to light during some aspect of consultation that the child's misbehaviour is situational, a letter may be written to the parents asking for their view on the fact that in certain situations the child's behaviour seems to be within normal limits. Detailed examples of all of these ways of using correspondence with clients are given in Carr (1995).

Dear Dr Gilhooley:

Re: Trevor Sullivan, 222 Windgate Road, Howth.

Many thanks for referring this 15 year old to me. I have seen Trevor, his father Joe, his step-mother Molly and his two step-sisters on three occasions for assessment interviews and spoken to his mother Maeve (who lives in Luton) on the phone.

You mentioned that the father's main concern was with Trevor's refusal to come in at a reasonable hour at the weekends. It also appears that the boy regularly hits his step-mother, Molly, if she confronts him about transgressions of house rules (including coming in late) in his father's absence. Trevor has also shown low mood and withdrawal at home but not at school.

These problems were precipitated by his mother's departure to the UK in January. The problems are an expression of his sadness and anger at his mother's departure. Predisposing factors include his parents' separation 2 years ago and the formation of the blended family in which he now resides a year ago. The problems are maintained by certain difficulties that have prevented Joe, Maeve and Molly from reaching a co-operative plan about how best to manage Trevor. These difficulties include Joe's recent exhaustion associated with working double shifts; Molly's recurrent mood problems which are currently worse because of her daughters problems in settling into school and the fact that Trevor has hit her on a number of occasions; and Maeve's work commitment which prevents her from visiting Trevor. The problems are also maintained by Trevor's interpretation of his mother's move to the UK as rejection and by his inability to deal with his feelings of grief and anger in a socially appropriate way.

Looking at protective factors, Trevor's adjustment prior to this episode was within normal limits. Also Joe, Maeve and Molly are committed to solving this difficulty and making the new family arrangement work. Trevor has shown signs of remorse for his violence to Molly. And both Joe and Molly support Trevor's need to maintain a relationship with his mother in the UK. Also, despite the family-based difficulties, Trevor's school performance is within normal limits.

Today, all parties in the family agreed to attend for a series of six sessions with a view to negotiating house rules, managing the violence and arranging a way for Trevor and his mother to have some contact. In addition, Trevor has agreed to attend our adolescent group which will be starting in March.

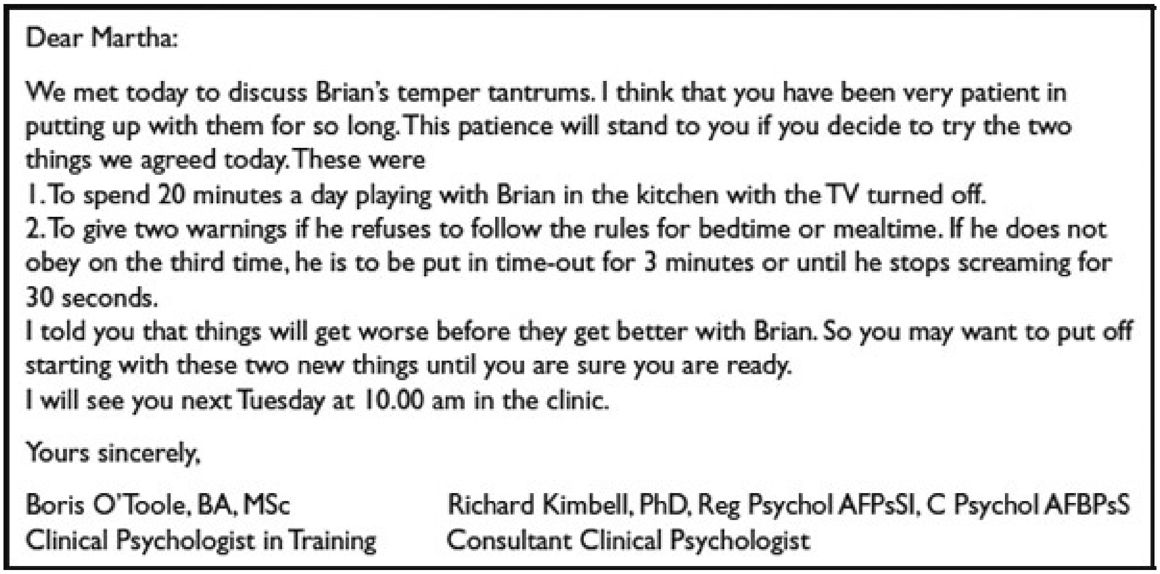
I shall write again when Trevor and the family have completed this programme.

Yours sincerely,

Boris O'Toole, BA, MSc
Clinical Psychologist in Training

Richard Kimbell, PhD, Reg Psychol AFPsSI, C Psychol AFBPsS
Consultant Clinical Psychologist

Figure 5.5 Example of a letter to a referring agent



Dear Martha:

We met today to discuss Brian's temper tantrums. I think that you have been very patient in putting up with them for so long. This patience will stand to you if you decide to try the two things we agreed today. These were

1. To spend 20 minutes a day playing with Brian in the kitchen with the TV turned off.
2. To give two warnings if he refuses to follow the rules for bedtime or mealtime. If he does not obey on the third time, he is to be put in time-out for 3 minutes or until he stops screaming for 30 seconds.

I told you that things will get worse before they get better with Brian. So you may want to put off starting with these two new things until you are sure you are ready.

I will see you next Tuesday at 10.00 am in the clinic.

Yours sincerely,

Boris O'Toole, BA, MSc
Clinical Psychologist in Training

Richard Kimbell, PhD, Reg Psychol AFPsSI, C Psychol AFBPsS
Consultant Clinical Psychologist

Figure 5.6 Example of a letter to a client

When writing a letter to clients, first clarify what you want to achieve by writing the letter. Do you want to inform clients or invite them to behave differently? Ideally what impact would you like the letter to have on clients? Second, guess what is on the client's mind and how the client will be likely to respond to the information or invitation that you offer. In some instances clients will be likely to receive information positively and respond to invitations to change their behaviour quite flexibly. In other situations, clients' ability level, their fear or anger that they are being negatively labelled by the psychologist, or their belief that the invitation in the letter to view the problem differently or behave differently will lead to some negative outcome may prevent them from understanding information or following through on invitations contained in letters. The third step in writing letters to clients is to decide how information or invitations should be framed so that they have the desired impact. Where clients have limited abilities, use simple language. Where there is a danger that clients may feel blamed for failing to solve the problem, acknowledge client strengths and commitment to change. Where clients fear that looking at the problem differently or behaving differently will lead to negative outcomes, highlight the benefits of accepting the invitation but also the dangers of accepting the invitation without due consideration and deliberation. An example of a letter to a client is contained in Figure 5.6.

Court reports

On occasion, psychologists are asked to write reports on the psychological adjustment of children for use in court. Such requests may come from a wide variety of sources including parents, legal guardians (where children are in the care of the state), solicitors or lawyers (acting on behalf of children, their parents or guardians), courts (where an independent opinion is required or following a subpoena) and insurance companies (where claims following accidents are being made).

Most court reports written by clinical psychologists working in child and family mental health services fall into four categories:

- road traffic accidents
- child protection
- juvenile justice
- parental custody and access disputes.

Where children have been involved in road traffic accidents, the neuropsychological effects of head injury (Chapter 8); the psychological impact of the accident and related physical injuries (Chapter 14); and post-traumatic stress reactions (Chapter 12), including those associated with traumatic bereavement if members of the child's network were killed in the accident (Chapter 24), are routinely assessed. Reports on the effects of road traffic accidents on children summarize psychological assessments indicating the degree to which the child's behavioural, cognitive, educational, emotional and physical functioning were impaired as a result of the accident and the possible prognosis. The short- and long-term psychological, social and financial impacts of the accident are also covered in these reports. Liaison with a financial professional may be appropriate in determining the financial impact of accidents. In assessing financial impact account is taken of the costs of past and future supports and interventions as well as loss of earning capacity.

In child protection cases the principal concerns are usually the validity of the evidence for the occurrence of child abuse, the credibility of the child's statement, the impact of the abuse on the child, the future needs of the child with particular reference to the changes that would have to be made in order for the child's family to offer adequate protection against further abuse. The assessment of 'parenting capacity' is central to these types of evaluations. Physical child abuse, neglect and sexual abuse are covered in Chapters 19–21. In Chapter 22, the transition from the family to residential childcare is considered and this may be of relevance in child abuse cases which lead to out-of-family placements.

Requests for court reports in the juvenile justice area usually involve youngsters who have conduct problems (including drug misuse) which are significant enough to bring them to the attention of the police. Assessment of factors contributing to youngsters' anti-social behaviour is typically requested along with recommendations for treatment and case management. Conduct problem and drug abuse are dealt with in Chapters 10 and 15, respectively.

In parental custody and access disputes the principal concern is how the child's needs for contact with both parents may best be met following parental separation or divorce. Psychological factors relevant to divorce are considered in Chapter 23.

Court reports should open with a statement of the clinical psychologist's qualifications and credentials to establish the psychologist's credibility in the eyes of the court. Professional qualifications, professional status with respect to national registration or chartering procedures, primary employer, and other agencies or universities with which the psychologist is affiliated should all be mentioned. In addition, the amount of experience with similar cases should be stated, particularly if evidence on a rare condition or a psychologically complex issue is being given. Here is an example of how to write an opening paragraph of a court report.

> This report is written by Dr Finn MacCool. I hold a doctorate in clinical psychology from Tara University and Masters and Bachelors degrees in psychology from the University of Howth. I am a Registered Psychologist with the Psychological Society of Ireland and a Chartered Clinical Psychologist with the British Psychological Society. I have been employed as a Clinical Psychologist with the Fianna's Health Board since 1990. I also work as a Senior Tutor with the Clinical Psychology Training programme at Tara University. Over the past 5 years, I have conducted consultations with more than 50 cases of childhood sexual abuse. I have also trained colleagues within psychology and other disciplines in the assessment and management of cases where child protection is a central concern.

Following this type of introductory paragraph, the format for a comprehensive psychological assessment may be followed with some minor modifications. Where there are conflicting opinions within the family and professional network about how to manage the case, particular attention should be paid in the section on the source of the referral and the referral question to specifying how the results of the psychological report may help to resolve these differences of opinion. For example,

> X believes A and Y believes B. These opinions have been formed without access to the results of a psychological assessment. One function of the psychological assessment reported below was to throw light on the relative validity of each of these positions.

Following the section on formulation, in child protection, custody and access and juvenile justices cases, the main options for case management and the pros and cons of each should be given. Finally, in a section headed *Recommendations*, a concise recommended action plan should be given, which reflects your opinion about which of the options discussed in the previous section is best to follow.

In cases where the central question is the immediate and long-term impact of injuries sustained in a road traffic accident, following the formulation, a section on prognosis should be included. It is important to outline the short- and long-term impact of the injuries on the child's physical, cognitive, behavioural, emotional, academic, occupational and social functioning. Reference should be made to both clinical experience and research on the outcome for similar cases.

Case study reports

In many clinical psychology training programmes, skills for conceptualizing clinical work are assessed by case study. Case studies show the extent to which knowledge of relevant psychological literature can be applied to case conceptualization and management. The precise requirements for writing case study reports vary from one clinical psychology training programme to another. The guidelines presented here are those used in the doctoral programme in clinical psychology at University College Dublin.

Case studies should be based on clients with which candidates have had clinical involvement as the key worker or as a co-worker with another clinician. The scientist-practitioner model should be used. That is, scientific knowledge and systematic assessment and intervention methods must be brought to bear on a specific clinical problem in an interpersonally sensitive way. A knowledge of the relevant literature must be demonstrated. A case study should show the candidate's ability to formulate and test clinical hypotheses and synthesize salient points from a range of assessment procedures into a comprehensive formulation. A case study should indicate that the candidate can develop and implement case management plans which follow logically from the formulation. Interpersonal sensitivity and an awareness of process and ethical issues should also be demonstrated in case study reports.

A case study may focus on describing how assessment procedures were used to resolve a diagnostic issue and arrive at a coherent integrative formulation, with implications for further multi-disciplinary teamwork or inter-agency work. In other instances, case studies may show how assessment and formulation led to the development and implementation of a case management or treatment plan. Where candidates had primary responsibility for implementing one aspect of this plan, particular attention may be paid to that in the case report. Where clients with similar problems have received group treatment, an entire group may serve as the focus for the case study. In such instances a generic formulation of the problem addressed by the group treatment programme may be presented.

A case study should follow the outline structure presented in Figure 5.7 and contain no more than 4,000 words (excluding appendices and references). Copies of reports, correspondence, and test forms may be included in appendices. Clients' names and other identifying information should be deleted from these documents to preserve confidentiality.

1. Demographic information about the case and the referral process

- Demographic information
- Referral agent, instigator of the referral and reason for referral
- History of the presenting problem
- Relevant background individual and family psychosocial and medical history
- Previous and current assessment and treatment

2. Review of relevant literature

- Classification, epidemiology, clinical features, course, assessment, treatment and controversial issues
- Reference to ICD and DSM and other relevant classification systems
- Reference to major clinical texts and recent relevant literature (particularly review papers, book chapters, assessment manuals, treatment manuals and handbooks)

3. Preliminary hypotheses and preliminary formulation of problem

- Hypotheses and proposed plan for testing hypotheses
- Preliminary formulation of the problem from a theoretical perspective

4. Assessment

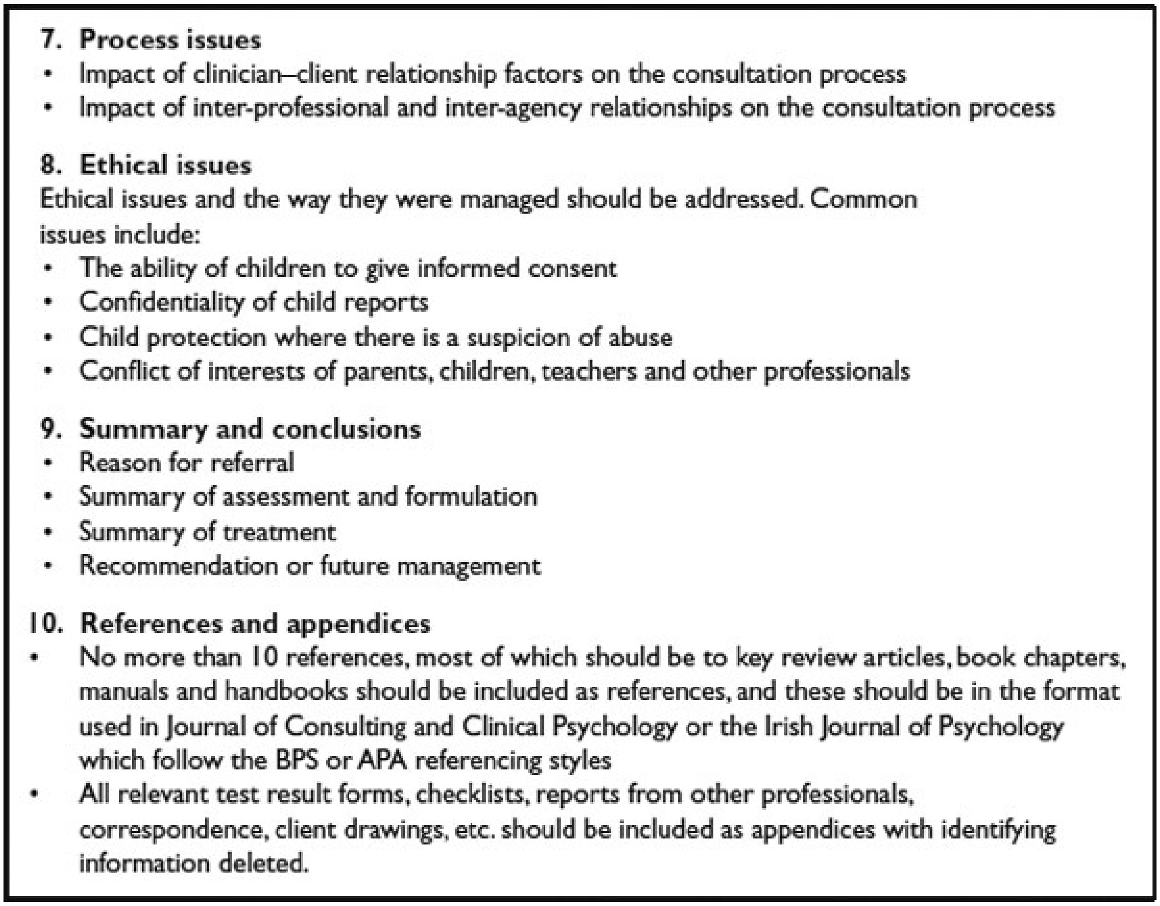
- Procedures used (e.g. interviews, psychometric tests, observation sessions)
- Rationale for choice
- Child's developmental history with particular reference to salient features
- Family's developmental history and genogram with particular reference to salient features
- Current cognitive functioning (including a table of test results if cognitive tests were conducted)
- Current psychosocial adjustment (including results of behaviour checklists and personality tests)

5. Formulation

- Implications of data from assessment for preliminary formulation and hypotheses
- Integration of assessment data into a comprehensive formulation highlighting predisposing, precipitating, maintaining and protective factors

6. Case management

- Consider options for action in the light of formulation (taking no further action, periodic reassessment, referral to another team member for consultation, referral elsewhere for consultation, focal intervention or multi-systemic intervention)
- Choice of option and reason for choice in light of formulation
- Description of programme plan and goals of programme
- Review of progress in the light of goals
- Evaluation of outcome specifying assessment instruments used (graph changes in problems or symptoms if appropriate; at a minimum pre- and post-treatment measures may be used; single-case designs may be used if appropriate)



7. Process issues

- Impact of clinician–client relationship factors on the consultation process
- Impact of inter-professional and inter-agency relationships on the consultation process

8. Ethical issues

Ethical issues and the way they were managed should be addressed. Common issues include:

- The ability of children to give informed consent
- Confidentiality of child reports
- Child protection where there is a suspicion of abuse
- Conflict of interests of parents, children, teachers and other professionals

9. Summary and conclusions

- Reason for referral
- Summary of assessment and formulation
- Summary of treatment
- Recommendation or future management

10. References and appendices

- No more than 10 references, most of which should be to key review articles, book chapters, manuals and handbooks should be included as references, and these should be in the format used in Journal of Consulting and Clinical Psychology or the Irish Journal of Psychology which follow the BPS or APA referencing styles
- All relevant test result forms, checklists, reports from other professionals, correspondence, client drawings, etc. should be included as appendices with identifying information deleted.

Figure 5.7 Framework for writing a case study

Consent for writing case studies should be obtained at the outset of the assessment and treatment contract. This issue is covered in the intake form in Figure 4.3. Where the case study format given in Figure 5.7 is unsuitable, the template may be modified. While psychologists in clinical training may prefer to write case study reports on cases where the work proceeded smoothly and led to a positive outcome, more may be learned by writing reports on cases where the work included setbacks and a uniformly positive outcome did not occur. Indeed, the purpose of the case study is to demonstrate learning, reflection, and professional development, and it is often in difficult work with clients where things do not go smoothly, where clients are challenging or do not improve, that we learn most. Such case studies may provide excellent opportunities for reflection and development.

The relationships between progress notes, assessment reports, end-of-episode case summaries, verbal reports, correspondence and special reports associated with specific cases are diagrammed in Figure 5.8. Assessment reports and case summaries are based on a synthesis of salient points from progress notes. Verbal reports, correspondence and special reports are abstracted from assessment reports and case summaries.

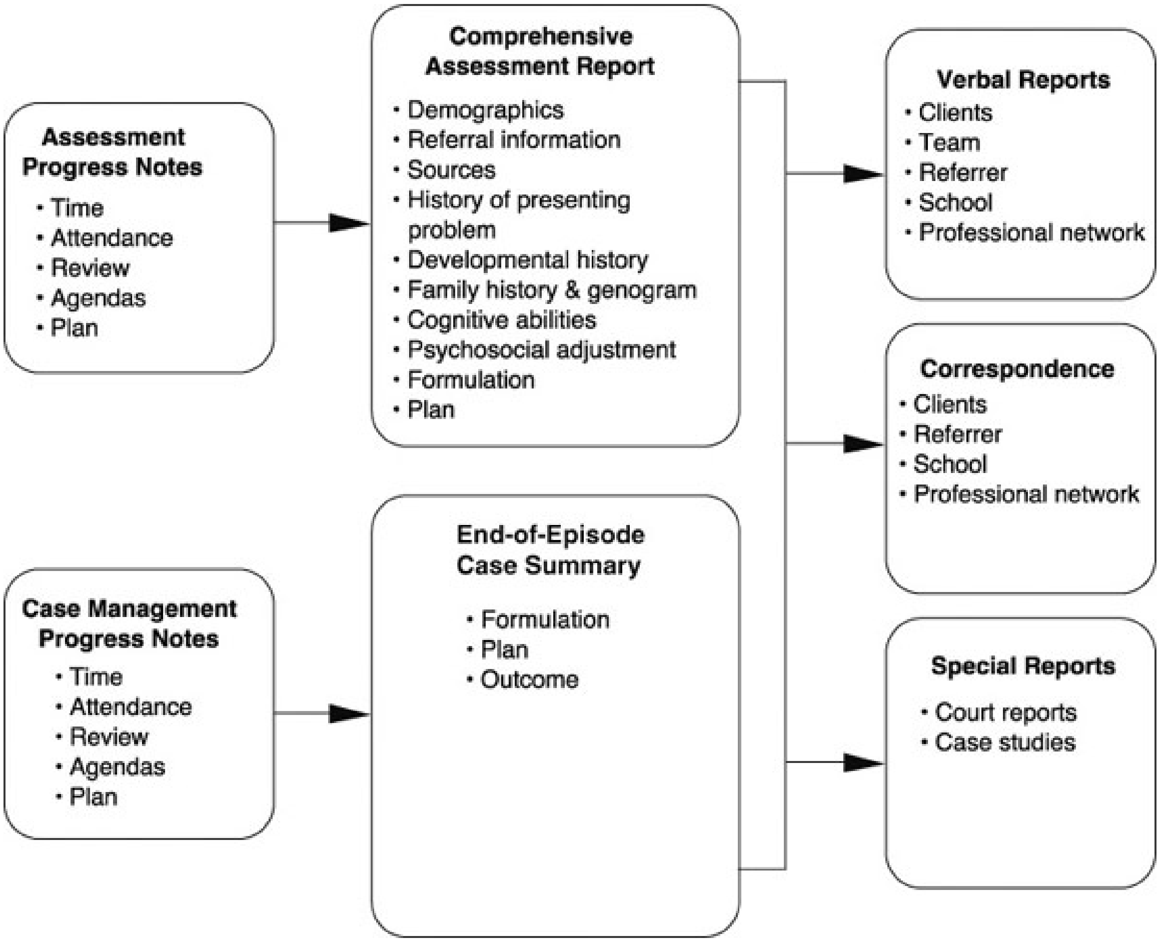


Figure 5.8 Relationships between various types of reports arising out of psychological consultations

Service reports and clinical audit

On an annual basis it is useful for clinical psychology service departments to produce reports which describe their performance over the preceding 12-month period. Such reports are useful for service planning and for keeping managers, service purchasers and funders abreast of departmental performance. Most psychology departments provide the following categories of service:

- clinical services to clients
- consultation and education to other professionals and agencies
- research, including surveys of population needs, waiting list analyses and programme evaluation.

Sections on each of these areas of service provision should be included in an annual report, usually in the order in which they have been listed here. In the section on research a list of projects and authors should be given. For each project the following summary information may be provided:

- the aims of the research
- the methods used
- the time taken to complete the project
- the principal findings
- recommendations for service development.

Full copies of important research projects may be included as appendices to an annual report, if appropriate.

In the consultation and educational services section of an annual report the following information may be given:

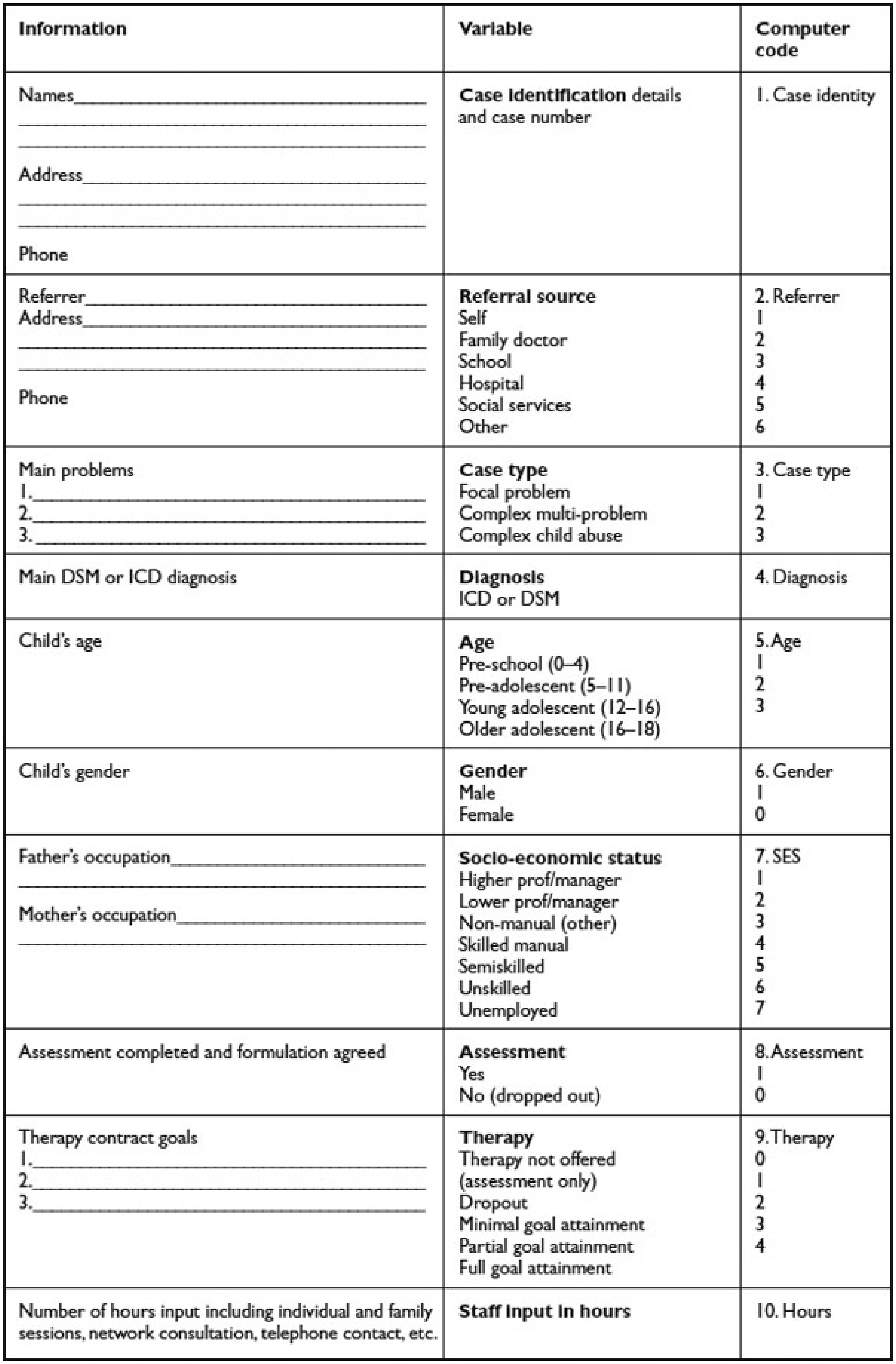
- a list of staff providing such services
- professionals or agencies receiving consultation or educational services or programmes
- the areas of education or consultation covered in the programmes
- the amount of time involved
- survey data or qualitative feedback on satisfaction with the consultation or educational process.

In an annual report the section on clinical services to clients is usually presented first, since it is usually of greatest interest to service funders and providers alike. The section usually contains a description of the types of services offered, the staff who offer these, the target population for whom the service is intended, and the avenues of referral. It is then followed by an account of the number and type of cases that received consultation, with a breakdown of the way they were referred; their demographic and clinical characteristics; the amount of input made to cases; the response of cases to the assessment and treatment process; clients' satisfaction with treatment; and referring agents' satisfaction with the service provided. This information is obtained through clinical audit. The forms in Figures 5.9–5.11 may be used to conduct such an audit and provide information areas mentioned earlier.

Some comments on the three forms will clarify how they may be used. For each case, the form in Figure 5.9 is completed at the end of an episode of consultation by the key worker. Most of the items are self explanatory. Item 3, where case type is coded, deserves explanation. A distinction may be made between cases where the presenting problems are relatively circumscribed (for example, learning difficulties and behavioural problems in a 9 year old boy from an intact family that is otherwise functioning fairly well), and complex multi-problem cases (for example, runaway and fire-setting behaviour in a 12 year old girl who has been living with her depressed mother and step-father and whose step-sister is in foster care). Some complex multi-problem cases may be classified as involving child abuse or neglect. It is useful to classify these separately because most services identify service provision in the child protection area as a priority.

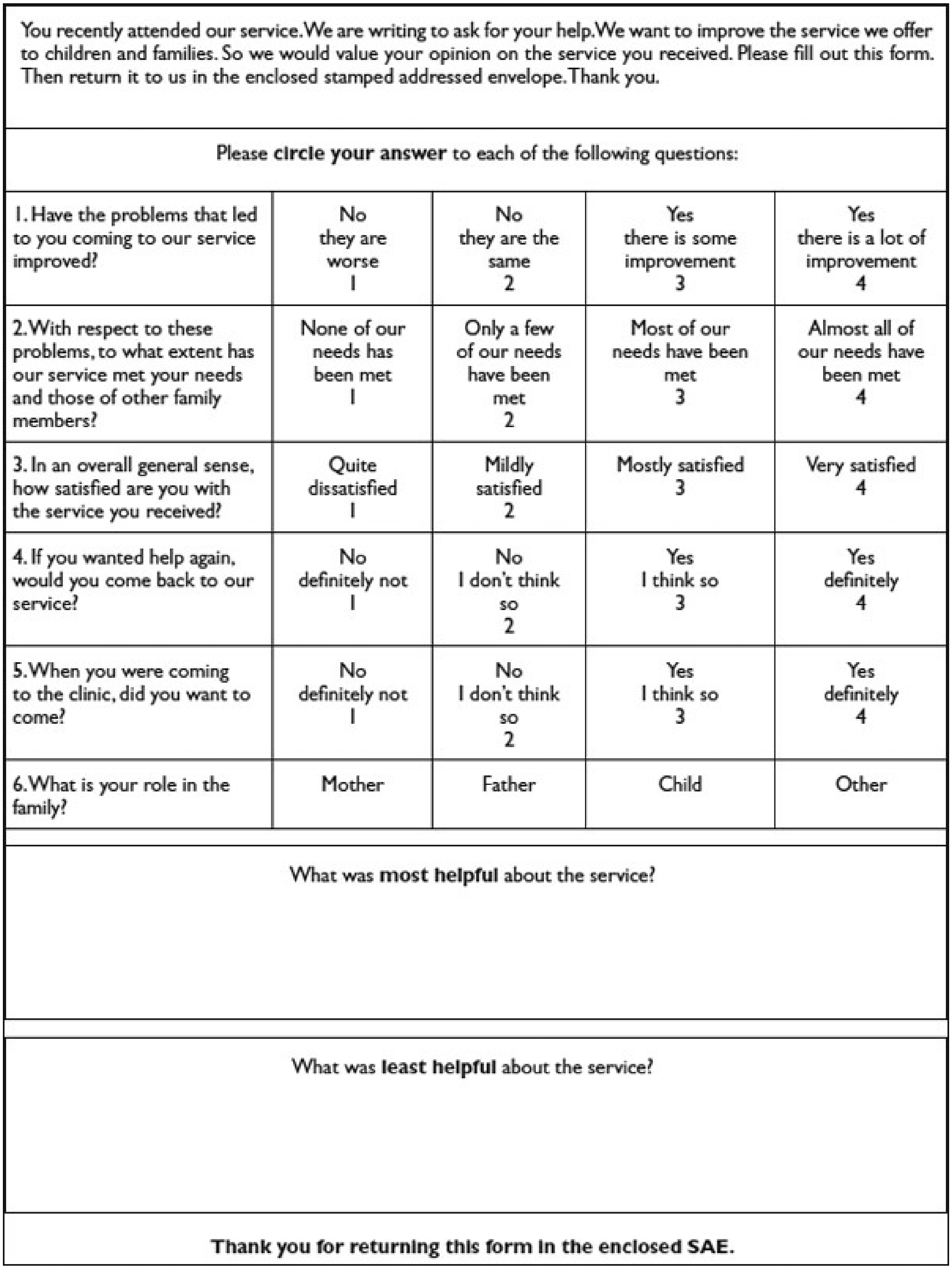
Items 8 and 9 of the Clinic Audit Form collect data on whether assessment and therapy phases of the consultation process were completed and the degree to which goals were attained. Thus, they furnish information on outcome from the therapist's perspective. Information on improvement in the presenting problem from the client's and referrer's perspective are furnished by the first item both on the Client Audit Form and on the Referrer Audit Form.

Scores on items 2, 3 and 4 of the Client Audit Form may be summed to produce an index of the client's satisfaction with the service offered. The three items have been adapted from Larsen et al.'s (1979) Client Satisfaction Scale. (The three items formed the briefest reliable and valid scale from a psychometric analysis of 81 items.) Scores on items 2, 3 and 4 of the Referrer Audit Form may be summed to give an index of referrer satisfaction.



Information	**Variable**	**Computer code**
Names___________________________________ _______________________________________ _______________________________________	**Case identification** details and case number	1. Case identity
Address_________________________________ _______________________________________ _______________________________________		
Phone		
Referrer________________________________	**Referral source**	2. Referrer
Address_________________________________	Self	1
_______________________________________	Family doctor	2
_______________________________________	School	3
	Hospital	4
Phone	Social services	5
	Other	6
Main problems	**Case type**	3. Case type
1.______________________________________	Focal problem	1
2.______________________________________	Complex multi-problem	2
3. ______________________________________	Complex child abuse	3
Main DSM or ICD diagnosis	**Diagnosis** ICD or DSM	4. Diagnosis
Child's age	**Age**	5. Age
	Pre-school (0–4)	1
	Pre-adolescent (5–11)	2
	Young adolescent (12–16)	3
	Older adolescent (16–18)	
Child's gender	**Gender**	6. Gender
	Male	1
	Female	0
Father's occupation_______________________ _______________________________________	**Socio-economic status**	7. SES
	Higher prof/manager	1
Mother's occupation______________________ _______________________________________	Lower prof/manager	2
	Non-manual (other)	3
	Skilled manual	4
	Semiskilled	5
	Unskilled	6
	Unemployed	7
Assessment completed and formulation agreed	**Assessment**	8. Assessment
	Yes	1
	No (dropped out)	0
Therapy contract goals	**Therapy**	9. Therapy
1.______________________________________	Therapy not offered	0
2.______________________________________	(assessment only)	1
3.______________________________________	Dropout	2
	Minimal goal attainment	3
	Partial goal attainment	4
	Full goal attainment	
Number of hours input including individual and family sessions, network consultation, telephone contact, etc.	**Staff input in hours**	10. Hours

Figure 5.9 Clinic audit form



You recently attended our service. We are writing to ask for your help. We want to improve the service we offer to children and families. So we would value your opinion on the service you received. Please fill out this form. Then return it to us in the enclosed stamped addressed envelope. Thank you.

Please **circle your answer** to each of the following questions:

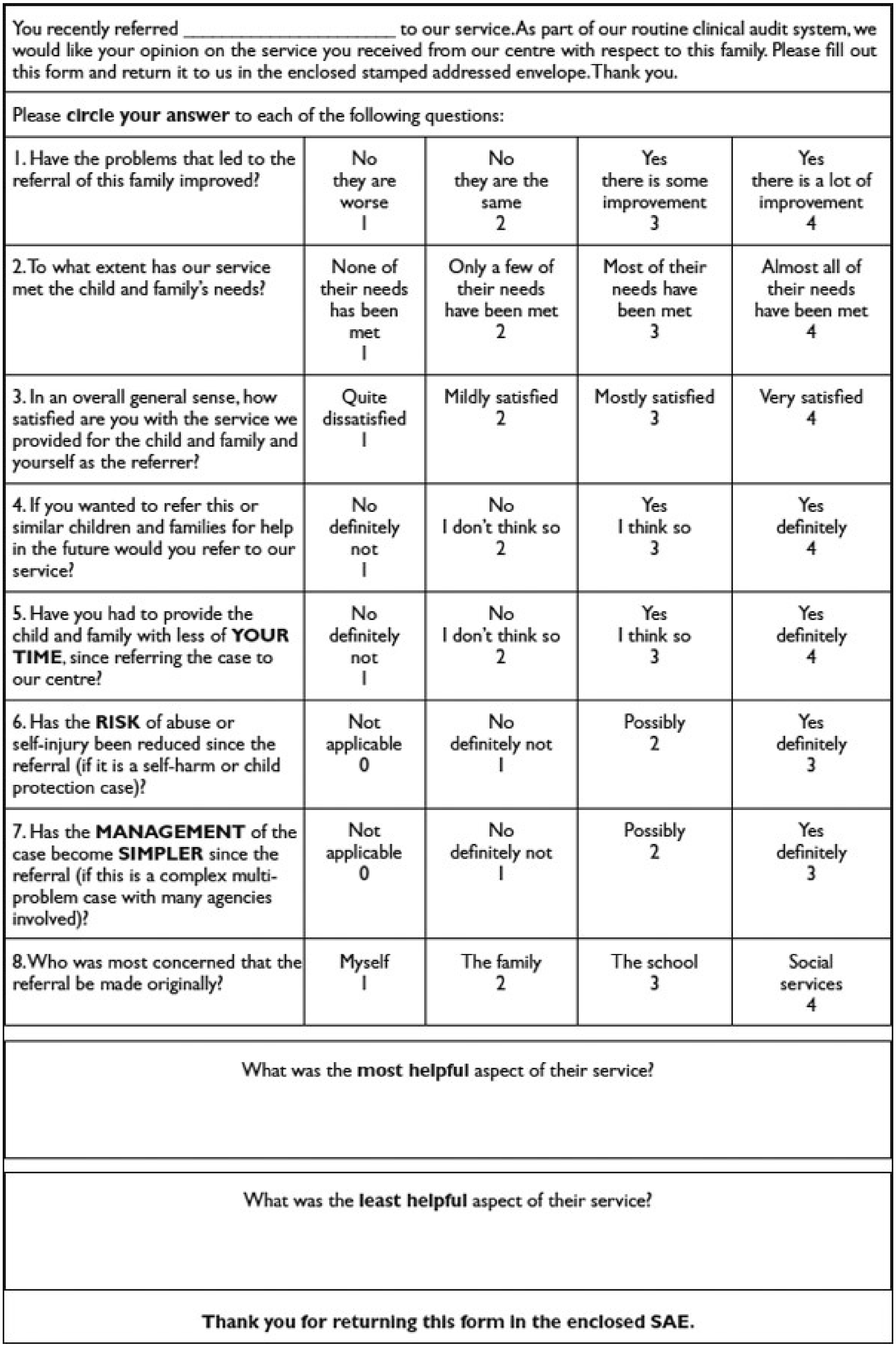
1. Have the problems that led to you coming to our service improved?	No they are worse 1	No they are the same 2	Yes there is some improvement 3	Yes there is a lot of improvement 4
2. With respect to these problems, to what extent has our service met your needs and those of other family members?	None of our needs has been met 1	Only a few of our needs have been met 2	Most of our needs have been met 3	Almost all of our needs have been met 4
3. In an overall general sense, how satisfied are you with the service you received?	Quite dissatisfied 1	Mildly satisfied 2	Mostly satisfied 3	Very satisfied 4
4. If you wanted help again, would you come back to our service?	No definitely not 1	No I don't think so 2	Yes I think so 3	Yes definitely 4
5. When you were coming to the clinic, did you want to come?	No definitely not 1	No I don't think so 2	Yes I think so 3	Yes definitely 4
6. What is your role in the family?	Mother	Father	Child	Other

What was **most helpful** about the service?

What was **least helpful** about the service?

Thank you for returning this form in the enclosed SAE.

Figure 5.10 Client audit form



You recently referred ______________________ to our service. As part of our routine clinical audit system, we would like your opinion on the service you received from our centre with respect to this family. Please fill out this form and return it to us in the enclosed stamped addressed envelope. Thank you.

Please **circle your answer** to each of the following questions:

1. Have the problems that led to the referral of this family improved?	No they are worse 1	No they are the same 2	Yes there is some improvement 3	Yes there is a lot of improvement 4
2. To what extent has our service met the child and family's needs?	None of their needs has been met 1	Only a few of their needs have been met 2	Most of their needs have been met 3	Almost all of their needs have been met 4
3. In an overall general sense, how satisfied are you with the service we provided for the child and family and yourself as the referrer?	Quite dissatisfied 1	Mildly satisfied 2	Mostly satisfied 3	Very satisfied 4
4. If you wanted to refer this or similar children and families for help in the future would you refer to our service?	No definitely not 1	No I don't think so 2	Yes I think so 3	Yes definitely 4
5. Have you had to provide the child and family with less of **YOUR TIME**, since referring the case to our centre?	No definitely not 1	No I don't think so 2	Yes I think so 3	Yes definitely 4
6. Has the **RISK** of abuse or self-injury been reduced since the referral (if it is a self-harm or child protection case)?	Not applicable 0	No definitely not 1	Possibly 2	Yes definitely 3
7. Has the **MANAGEMENT** of the case become **SIMPLER** since the referral (if this is a complex multi-problem case with many agencies involved)?	Not applicable 0	No definitely not 1	Possibly 2	Yes definitely 3
8. Who was most concerned that the referral be made originally?	Myself 1	The family 2	The school 3	Social services 4

What was the **most helpful** aspect of their service?

What was the **least helpful** aspect of their service?

Thank you for returning this form in the enclosed SAE.

Figure 5.11 Referrer audit form

Items 5 and 6 of the Client Audit Form give information on the client's motivation to attend for consultation and their role in the family.

The lessening of a referrer's perception of a case as *extremely complex to manage* or as *posing a risk of child abuse or violence* has been identified as important indices of the usefulness of consultation to statutory social workers (Manor, 1991). For this reason, items 6 and 7 have been included in the Referrer Audit Form. Item 5, which assesses the degree to which systemic consultation reduces the amount of time the referrer has to devote to the case, was identified by family doctors as a valuable index of the usefulness of a consultation service for children and families (Carr et al., 1994).

On both the Client and Referrer Audit Forms an opportunity is given for the respondent to comment on the most and least helpful aspects of the service. This qualitative data may suggest particular ways in which aspects of the consultation process or service delivery system may be improved. Illustrative comments may be drawn from the qualitative data and included in the body of a service report to flesh out and concretize the implication of the quantitative data.

The three forms have been developed in the light of the available literature on audit in the child and family mental health field and of our own experience with audit in a busy child and family clinic (Berger et al., 1993; Carr et al., 1994). Of course, the forms will probably require some local modifications if you want to use them within your service. However, if you do modify them, it is worth keeping in mind the criteria that were used during their development. First, the forms collect essential information only. Many available audit systems are wonderfully comprehensive (e.g. Berger et al., 1993). However, our experience is that, after an initial rush of enthusiasm, staff forget to fill out large comprehensive audit forms and clients do not return them. Second, the forms are designed so that the information from them may easily be entered into a computer database, or may initially be set up for computer-based data collection. The information on the Clinic Audit Form may be converted to 10 computer code numbers in the right-hand column. Information from the Client Audit Forms may be computer coded as six numbers: one for each item. Information from the Referrer Audit Form may be entered into a computer database as eight number codes. The third feature of the system is that it is compact. Each form is only a single side of a single page. The fourth important characteristic of the system is that it is as simple and unambiguous as possible. The final attribute of the system deserving mention is its user-friendliness for staff, referrers and clients.

All three audit forms may be used with every case. However, this may be time consuming and expensive. A good compromise is to complete a Clinic Audit Form on every case and to invite a subsample of referrers and clients to complete audit forms.

Electronic health records and regular outcome assessment

In many agencies where clinical psychologists are employed, electronic health records are increasingly being used as an alternative to paper case files (British Psychological Society, 2011). Important concerns for clients and clinical psychologists are the precise types of information that are to be routinely uploaded to electronic health records and the range of professionals who may have access to this specialist information. For example, in some services where electronic health records have been introduced, psychologists keep an additional private paper file containing progress or process notes, psychological testing forms, genograms, informal correspondence with clients, children's drawings and so forth. Periodically this information is summarized and entered into the electronic health record, and all professionals on the psychologist's multi-disciplinary team have access to this summary information. In other services all psychology notes, test forms and other information is scanned or typed directly into the electronic health record, but access to this is limited to the psychologist only, with formal summary reports or letters being sent to colleagues from other disciplines periodically. It is important for clinical psychologists, especially those in training, to be aware of their agency's policies on these issues and where appropriate to contribute to policy development.

A movement towards the periodic collection of standardized outcome data on all cases is accompanying the increasingly widespread uses of electronic health records. That is, in more and more agencies psychologists are being required as a routine part of their practice with all cases to use brief standardized measures to assess progress periodically. (See, for example, the Children and young people's improving access to psychological therapies – Tracking outcomes resource pack, http://www.iapt.nhs.uk/silo/files/childrenandyoungpeoplesiapttrackingoutcomesresourcepack-v132.pdf.) Outcome data may be collected using paper-and-pencil forms, and then entered into a computer for analysis. Alternatively clients may complete forms online using a digital interface. These digital interfaces may or may not form part of patients' electronic health records. Clearly there are efficiencies associated with both systems being closely linked. Periodically anonymized outcome data may be analysed to provide information on service outcomes such as improvement rates within the service as a whole. A summary of these analyses may be included in annual psychology service audits.

Summary

Progress notes about clinical cases allow us to remember the complex information which is gathered during the assessment process. Five categories of information may be recorded at the end of each assessment session: **T**ime, **A**ttendance, **R**eview, **A**genda, **P**lan. These may be remembered because the combined first letters of the category names form the acronym TARAP.

With any case, at the end of the assessment stage, the contents of the assessment progress notes may be drawn together into a comprehensive assessment report which summarizes details of the referral, the sources of information on which the report is based, salient points concerning the history of the problem, the child and the family, the child's current cognitive and psychosocial status, a formulation of the main problems and a case management plan. Throughout the case management process, progress notes may be recorded following the TARAP system. At the end of an episode, a case summary may be written containing the formulation, a summary of how the plan was implemented and the outcome to which it led.

During the consultation process and when closing a case at the end of an episode, it may be necessary to keep clients and colleagues informed of progress through verbal or written reports. In preparing such reports or letters, first identify the audience to whom your report will be addressed. Clarify what sort of question to which they require an answer. Compose the list of points you wish to make to answer these inquiries. Frame the points in language and at a level of technical sophistication that will be optimally intelligible to the audience. Where you wish to engage in a programme of joint action with another professional it is better practice to outline your formulation in a letter and invite your colleague to join you in a meeting to discuss joint action than to ask them to implement a programme you have already designed.

Court reports written by clinical psychologists working in child and family mental health fall into four categories: medico-legal reports following road traffic accidents, child protection assessments (which often involve evaluation of parenting capacity), juvenile justice case assessments, and assessments of children's needs in parental custody and access disputes. These reports should begin with a statement of the psychologist's credentials and experience. They should then follow the format of comprehensive assessment reports with some modification to the final paragraphs. Medico-legal reports about adjustment following a road traffic accident should conclude with a prognostic statement based on clinical experience and research evidence from similar cases. In the other types of cases listed, a consideration of the pros and cons of the main case management options should be given followed by recommendations for action.

In many clinical psychology training programmes, case study reports are used to assess conceptual clinical skills. It is useful if these reports are premised on the scientist-practitioner model. That is, scientific knowledge and systematic assessment and treatment methods are brought to bear on specific clinical problems in an interpersonally sensitive way. A framework for such reports was outlined. While this framework broadly follows the format of a comprehensive assessment report followed by an end-of-episode summary report, it incorporates a brief literature summary, an explicit preliminary formulation and a section in which process and ethical issues are considered. The framework also requires the inclusion of references and appendices.

To aid service development and provide service funders with accurate information on performance, clinical psychologists may produce annual service reports. An annual clinical psychology service report may include sections on the main areas of service provision such as clinical services, consultation and education services, and research. The results of a clinical audit which incorporates standard data on each case and feedback from clients and referrers may be incorporated into sections on clinical service provision.

Increasingly clinical psychologists are being required to use electronic health records and regular outcome assessments of all cases. Clinical psychologists in training need to be aware of local policies on these two issues.

Exercise 5.1

1. Divide the class into two groups. One group take the role of the assessment team and the other take the role of the Sullivan-Rourke family (Molly, Joe, Trevor, Tina and Kate) described in Figures 5.1–5.5.
2. All members of both teams are invited to read the material in Figures 5.1–5.5.
3. The family team are invited to take 10 minutes to enter into the roles of the Sullivan-Rourkes by imagining and discussing what happened between the second and third assessment sessions.
4. The assessment team are invited to develop an assessment agenda to follow for the third assessment session and elect a member to conduct a 20-minute interview with the group role playing the family. This elected person should then conduct the assessment interview and the remaining members of the group should each independently write a progress note in the TARAP format.
5. All class members should de-role at this point. Members of the assessment team should read out the TARAP format progress notes. Each member of the class may note the similarities and differences between the notes made.

Exercise 5.2

Use the TARAP progress note system, the comprehensive assessment report system and the end-of-episode case summary system with one of your current cases.

Further reading

McGoldrick, M., Gerson, R., & Petry, S. (2008). *Genograms: Assessment and intervention* (3rd ed.). New York: Norton.

Websites

Genogram programmes: http://www.genopro.com/genogram/ and http://www.genogram.org/

Psychological report writing software: http://www.parinc.com/ and http://www.pearsonclinical.com/psychology.html

Section 2

Problems of infancy and early childhood

Chapter 6

Sleep problems

In this chapter the stages of sleep will be described before considering the classification and clinical features of sleep disorders. The evidence-based assessment and management of various sleep problems will be discussed (Dahl & Harvey, 2008; Freeman et al., 2012; Goodlin-Jones & Anders, 2004; Hoban, 2010; Meltzer & Mindell, 2009; Mindell & Owens, 2010; Morgenthaler et al., 2006; Morin & Espie, 2012; Sheldon et al., 2014; Stores, 2001, 2014).

Chronic sleep loss is associated with diminished cognitive abilities and emotional dysregulation. Children with sleep problems and their parents typically show these deficits. Where children have sleep problems, particularly settling and night-waking problems, and parents have tried over a period of months or years to solve the problem with little success, further family difficulties occur that may compound the sleep problems. These difficulties include exhaustion, parental depression, marital discord, deterioration in parent–child relationships, and a reduction in the number and quality of socially supportive interactions.

A wide variety of solutions have been tried in most families referred to clinical psychologists with children's sleep problems as the central concern. These may include sedation, night feeding, ignoring night-time crying, having the child sleep alone, having the child sleep with the parents, having a fixed bedtime, having a variable bedtime, prayer, faith healing and so on. An abundance of conflicting advice from a variety of professional and non-professional sources will have been offered. When parents arrive in the psychologist's office they are invariably at their wits' end. It is, therefore, critical that the psychologist's approach to helping parents and their children solve such problems is both well informed on the one hand and sympathetic and supportive on the other.

Normal and disrupted sleep

Polysomnography (PSG) provides information about physiological changes that occur in electrical brain activity (electroencephalogram, EEG), muscle tension (electromyogram, EMG), eye movements (electrooculogram, EOG) and respiration during sleep. PSG records are currently rated using the American Academy of Sleep Medicine (AASM) manual for the scoring of sleep and associated events (Iber et al., 2007) which has replaced Rechtschaffen and

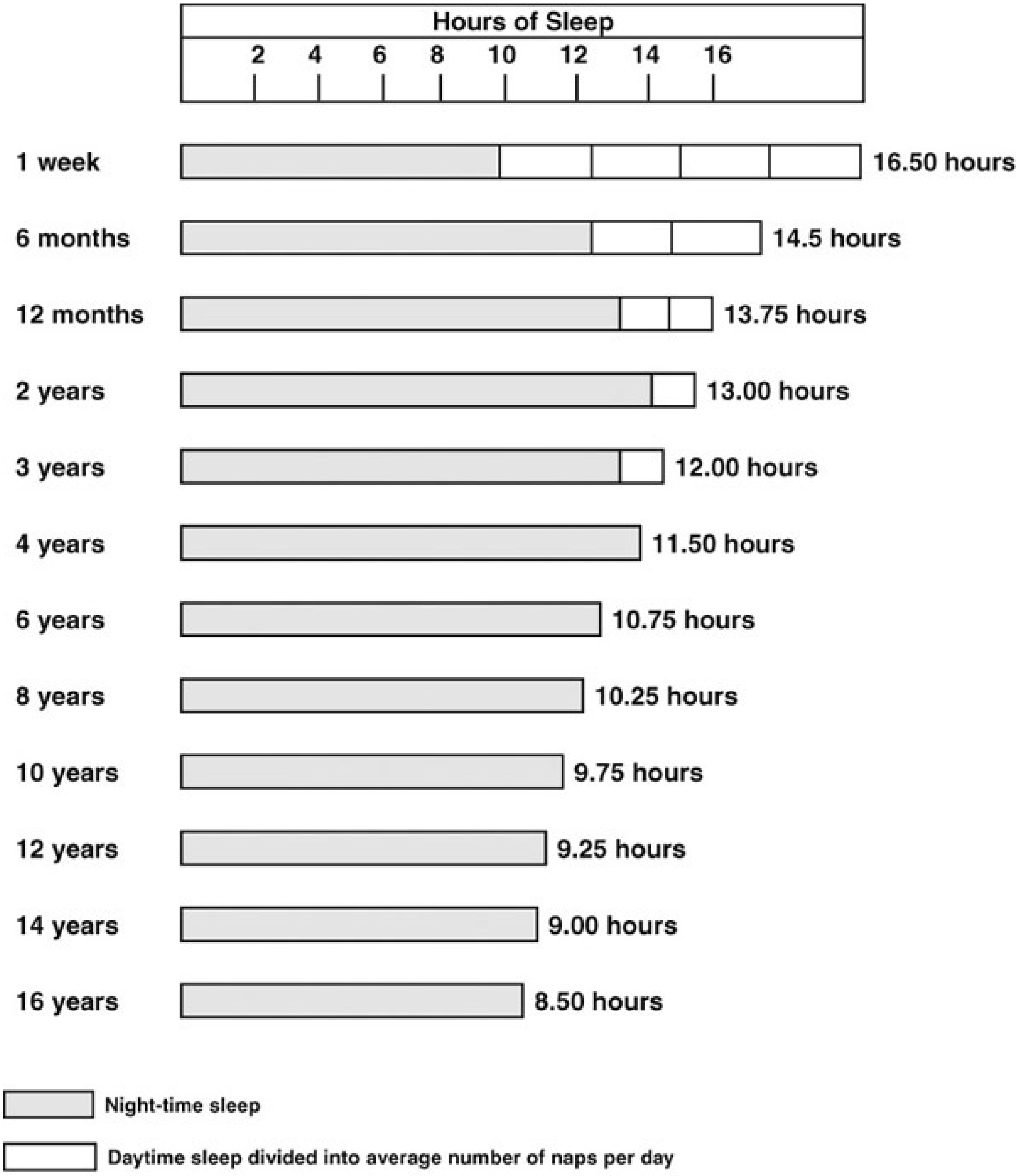
Kales's (1968) sleep stage criteria. With both sets of criteria a distinction may be made between two sleep states: rapid eye movement (REM) sleep and non-rapid eye movement (NREM) sleep. During REM sleep the EEG pattern approximates that of wakefulness. However, the eyes, while closed, move rapidly and continuously; low muscle tone occurs; and if awakened, vivid dream experiences are reported. Formerly Rechtschaffen and Kales's criteria distinguished four stages of NREM sleep. Stages 1 and 2 are associated with light sleep and stages 3 and 4 with deep sleep from which it is difficult to be awakened. Because of the low frequency of the EEG wave patterns that characterize stages 3 and 4, deep sleep is also known as slow wave sleep (SWS). In the AASM manual distinctions are made between only three stages of NREM sleep – N1, N2, N3 – with higher numbers reflecting increasing depth of sleep. Stage N3 is a combination of Rechtschaffen and Kales's stage 3 and 4 sleep. PSG studies show that throughout the night there is a cyclical alternation between NREM and REM sleep. The patterning of stages and NREM–REM cycles is referred to as sleep architecture. The architecture of sleep changes over the course of the lifespan (Sheldon et al., 2014). NREM–REM cycles lengthen from 50 minutes in infants to about 90 minutes in adults. Up until 3 months, infants enter REM sleep directly from wakefulness. After 3 months, sleep typically begins with stage 1 NREM sleep. REM accounts for 90% of sleep in neonates and 50% of sleep in the first year of life, and declines to about 20% in adulthood.

The sleep–wake cycle follows a circadian rhythm, governed by a biological clock. This is controlled by the suprachiasmatic nucleus of the hypothalamus. The endogenous biological clock is also affected by external environmental cues or 'zeitgebers' (German for 'time givers'). These include the light–dark cycle, timing of meals, bedtime routines and knowledge of clock time.

There is some consensus that the function of SWS may be restorative. Growth hormone output occurs during SWS. Children with chronic sleep disturbance due to asthma or a breathing-related sleep disorder in which there are periods during which they do not breathe (such as obstructive sleep apnoea) have retarded growth, as do emotionally deprived children who engage in little SWS. Controversy continues about the function of REM sleep. It may be that it plays some role in facilitating the maturation and fine-tuning of the central nervous system (CNS). It has also been argued that REM sleep may play a role in the consolidation of memories acquired during daytime activity. REM sleep may also play a role in emotional processing and this may account for increased depression, anxiety, anger and impulsivity associated with sleep loss.

The amount of time children spend asleep decreases with age. A graph of typical sleep requirements of children at various ages is presented in Figure 6.1. New-borns sleep an average of 16.5 hours per day; 1 year olds on average sleep for 13.75 hours per day; 5 year olds sleep for about 11 hours per night; and by 10 years of age the average sleep duration for children is 9.75 hours (Ferber, 1985). There is considerable variability among children in the duration of sleep, although this too decreases with age. On average, 2 year olds wake about three times each night. However, the majority (about 75%) have self-soothing skills and are able to return to sleep without parental intervention. Breastfed children tend to wake more frequently during the night than artificially fed children and Wright et al. (1983) found that, on average, bottle-fed children slept through the night at 11 weeks in contrast to breastfed children who slept through at 13 weeks.

While there is considerable controversy about infants sleeping in their parents' beds, a UK-based survey showed that among children with night-waking problems it is quite common. Thirty-five per cent of infants who had night-waking difficulties slept with their parents compared with 7% of controls (Richman, 1981). There is no right or wrong answer when it comes to parents making a decision about children sleeping in their beds. In many cultures all family members sleep together until children are quite old, since this allows the parents to protect the children from predators and to keep the child warm. Children sleeping in their parents' bed only becomes a problem deserving clinical intervention when its impact on the parents and children becomes excessively negative.



Note: Adapted from Ferber (1985).

Figure 6.1 Typical sleep requirements in childhood

A bidirectional, vicious cycle may occur between anxiety, mood and neurodevelopmental disorders which lead to sleep loss on the one hand, and the negative effects of sleep loss on emotional regulation on the other (Dahl & Harvey, 2008). Many children with anxiety, depression, bipolar disorder and neurodevelopmental disorders such as attention deficit hyperactivity disorder (ADHD) and autism spectrum disorder (ASD) have disrupted sleep. These sleep problems lead to emotional dysregulation and increased anxiety, depression, aggression and impulsivity. These emotional dysregulation problems in turn exacerbate anxiety, mood and neurodevelopmental disorders.

Classification and epidemiology

Classification systems for children's sleep problems are given in DSM-5 (APA, 2013), ICD-10 (WHO, 1992), the third edition of the American Sleep Disorders Association's (2014) International Classification of Sleep Disorders (ICSD-3), and the Revised Diagnostic Classification of Mental Health and Developmental Disorders in Infancy and Early Childhood (DC: 0–3R, Zero to Three, 2005). All of these classification systems distinguish between (1) problems initiating or maintaining sleep, (2) excessive sleepiness and (3) disturbed episodes that interfere with sleep. The first two of these are referred to as dyssomnias, and the third as parasomnias. With the dyssomnias, the central problem is the amount, timing or quality of sleep. Behavioural and physiological abnormalities occurring during sleep characterize the parasomnias. The dyssomnias include insomnia, hypersomnia, narcolepsy, breathing-related sleep disorder (sleep apnoea), and circadian rhythm sleep–wake disorder. The parasomnias include nightmares, sleep terrors and sleepwalking.

Diagnostic criteria for the dyssomnias and parasomnias adapted from DSM-5 and ICD-10 are presented in Tables 6.1 and 6.2. Goodlin-Jones and Anders's (2004) diagnostic criteria for young children with sleep onset and night-waking problems are given in Table 6.3. The empirically derived Sleep Problems syndrome scale from Achenbach and Rescorla's (2000) Child Behaviour Checklist (CBCL) for children aged 1.5–5 years is also included in this table for comparative purposes. The syndrome scale assesses general sleep onset and night-waking problems. Thus the CBCL is a reliable way to screen for general sleep problems in infants and toddlers, and this may be followed up with more detailed assessment of specific sleep disorders.

International epidemiological data from studies in industrialized countries suggests that a quarter to a third of pre-schoolers have sleep problems, the most common of which are settling and night-waking (Goodlin-Jones & Anders, 2004; Owens, 2005). Prevalence rates for sleep disorders in children and adolescents summarized by Dahl and Harvey (2008) are as follows: insomnia, 10–30%; narcolepsy, 0.5%; nightmares 10–50%; sleep terrors, 17%; and sleep walking, 14%. Rates of sleep disturbance among children with ADHD are 25–50%; ASD are 44–83%; and mood disorders are 90% (Mindell & Meltzer, 2008).

Table 6.1 Diagnosis of dyssomnias

	DSM-5	*ICD-10*
	Insomnia disorder A. A predominant complaint of dissatisfaction with sleep quantity or quality or associated with one (or more) of the following symptoms:	A. Difficulty falling asleep, maintaining sleep or poor quality of sleep. B. Occur 3 times a

Insomnia	1. Difficulty initiating sleep. (In children this may manifest as difficulty initiating sleep without caregiver intervention.) 2. Difficulty maintaining sleep characterized by frequent awakenings or problems returning to sleep after awakenings. (In children this may manifest as difficulty returning to sleep without caregiver intervention.) 3. Early morning awakening with inability to return to sleep. B. The sleep disturbance causes clinically significant distress or impairment in social, occupational, educational, academic, behavioral or other important areas of functioning. C. The sleep difficulty occurs at least 3 nights per week. D. The sleep difficulty is present for at least 3 months. E. The sleep difficulty occurs despite adequate opportunity to sleep. F. The insomnia is not better explained by and does not occur exclusively during the course of another sleep–wake disorder (e.g., narcolepsy, a breathing-related sleep disorder, a circadian rhythm sleep–wake disorder, a parasomnia). G. The insomnia is not attributable to the physiological effects of a substance (e.g., a drug of abuse, a medication). H. Coexisting mental disorders and medical conditions do not adequately explain the predominant complaint of insomnia. (For specifiers, see DSM-5, pp. 362–363.)	week for at least a month. C. A preoccupation with the sleeplessness and excessive concern over its consequences. D. Causes marked distress and impaired functioning.
	Hypersomnolence disorder A. Self-reported excessive sleepiness (hypersomnolence) despite main sleep period	A. Excessive daytime sleepiness or sleep attacks not accounted for by an inadequate amount of sleep or prolonged transition to

Hypersomnia	lasting at least 7 hours with at least one of the following symptoms: 1. Recurrent episodes of sleep or lapses into sleep within the same day. 2. A prolonged main sleep episode of more than 9 hours per day that is nonrestorative (i.e. unrefreshing). 3. Difficulty being fully awake after abrupt awakening. B. The hypersomnolence occurs at least 3 times per week for at least 3 months. C. The hypersomnolence is accompanied by significant distress or impairment in cognitive, social, occupational, or other important areas of functioning. D. The hypersomnolence is not better explained by and does not occur exclusively during the course of another sleep disorder (e.g., narcolepsy, a breathing-related sleep disorder, circadian rhythm sleep–wake disorder, or a parasomnia). E. The hypersomnolence is not attributable to the physiological effects of a substance (e.g., a drug of abuse, a medication). F. Coexisting mental and medical conditions do not adequately explain the predominant complaint of hypersomnolence. (For specifiers, see DSM-5, p. 369.)	wakefulness. B. Occurs daily for at least a month or for recurrent periods of shorter duration causing marked distress or impaired functioning. C. Absence of auxiliary symptoms of narcolepsy (cataplexy, hypnogogic or hypnopompic hallucinations and sleep paralysis) or evidence of sleep apnoea. D. Not due to another medical condition.
	Narcolepsy A. Recurrent periods of irrepressible need to sleep, lapsing into sleep, or napping occurring within the same day. These must have been occurring at least 3 times per week over the past 3 months. B. The presence of at least one of the following: 1. Episodes of cataplexy defined, by either (a) or (b), occurring at least a few times per month:	

Narcolepsy	a. In individuals with longstanding disease, brief (seconds to minutes) episodes of sudden bilateral loss of muscle tone with maintained consciousness that are precipitated by laughing or joking. b. In children or in individuals within 6 months of onset, spontaneous grimacing or jaw opening episodes with tongue thrusting or a global hypotonia without any obvious emotional triggers. 2. Hypocretin deficiency as measured using cerebrospinal fluid (CSF) hypocretin-1 immunoreactivity values (less than or equal to one-third of values obtained in healthy subjects tested using the same assay, or less than or equal to 110 pg/mL). Low CSF levels of hypocretin-1 must not be observed in the context of acute brain injury, inflammation, or infection. 3. Nocturnal sleep polysomnography showing rapid eye movement (REM) sleep latency less than or equal to 15 minutes, or a multiple sleep latency test showing a mean sleep latency of less than or equal to 8 minutes and two or more sleep onset REM periods. (For specifiers, see DSM-5, p. 373.)	Not included in Chapter 5 of ICD-10.
Obstructive sleep apnoea	Obstructive sleep apnea hypopnea A. Either 1 or 2: 1. Evidence by polysomnograph of at least five obstructive apneas or hypopneas per hour of sleep and either of the following sleep symptoms: a. Nocturnal breathing disturbances: snoring, snorting/gasping, or breathing pauses during sleep. b. Daytime sleepiness, fatigue or unrefreshing sleep despite sufficient opportunities to sleep that is not better explained by another mental disorder (including a sleep disorder) and is not attributable to another medical condition. 2. Evidence by polysomnography of 15 or more	Not included in Chapter 5 of ICD-10.

	obstructive sleep apneas and/or hypopneas per hour of sleep regardless of other symptoms. (For specifiers, see DSM-5, p. 378.)	
Central sleep apnoea	Central sleep apnea A. Evidence by polysomnography of at least five or more obstructive sleep apneas per hour of sleep. B. The disorder is not better explained by another current sleep disorder. (For specifiers, see DSM-5, p. 383.)	Not included in Chapter 5 of ICD-10.
Circadian rhythm sleep disorder	Circadian rhythm sleep–wake disorder A. A persistent or recurrent pattern of sleep disruption that is primarily due to an alteration of the circadian system or to a misalignment between the endogenous circadian rhythm and the sleep–wake schedule required by an individual's physical environment or social or professional schedule. B. The sleep disruption leads to excessive sleepiness or insomnia or both. C. The sleep disturbance causes clinically significant distress or impairment in social, occupational, and other important areas of functioning. (For specifiers, see DSM-5, pp. 390–391.)	A. A sleep–wake pattern that is out of synchrony with the sleep–wake schedule that is normal for A. particular society and shared by most people in that cultural environment. B. Insomnia during the major sleep period and hypersomnia during the waking period nearly every day for a month or recurrently for shorter periods. C. Causes marked distress or impaired functioning.

Note: DSM-5 diagnostic criteria are reprinted with permission from the *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition* (APA, 2013). Copyright © 2013 American Psychiatric Association. The material in the column headed ICD-10 is a summary of the clinical description and diagnostic guidelines for insomnia, hypersomnia and non-organic disorder of the sleep–wake schedule. For the full official WHO clinical descriptions and diagnostic guidelines for these disorders see WHO, 1992, pp. 182–187.

Table 6.2 Diagnosis of parasomnias

Nightmares	Nightmare disorder A. Repeated occurrences of extended, extremely dysphoric and well-remembered dreams that usually involve efforts to avoid threats to survival, security or physical integrity, and that generally occur during the second half of the major sleep episode. B. On awakening from the dysphoric dreams the individual rapidly becomes oriented and alert. C. The sleep disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning. D. The nightmare symptoms are not attributable to the physiological effects of a substance (e.g., a drug of abuse or medication). E. Coexisting mental and medical disorders do not adequately explain the predominant complaint of dysphoric dreams. (For specifiers, see DSM-5, p. 404.)	A. Awakening from sleep with detailed and vivid recall of intensely frightening dreams, usually involving threats to survival, security, or self-esteem, typically occurring during the second half of sleep period. B. The individual rapidly becomes oriented and alert upon awakening from the dream. C. Causes marked distress or impaired functioning.
Sleep terrors and	Non-rapid eye movement sleep arousal disorders A. Recurrent episodes of incomplete awakening from sleep, usually occurring during the first third of the major sleep episode, accompanied by either one of the following: 1. **Sleepwalking**. Repeated episodes of	**Sleep terrors** A. Recurrent episodes of awakening from sleep with a panicky scream and displaying intense anxiety, body motility, and autonomic hyperactivity such as tachycardia, rapid breathing, dilated pupils, and sweating. B. Episodes last up to 10 minutes and occur during the first third of nocturnal sleep.

sleepwalking	rising from bed during sleep and walking about. While sleepwalking, the individual has a blank, staring face; is relatively unresponsive to the efforts of others to communicate with him or her, and can be awakened only with great difficulty.	C. Unresponsiveness to reassurance. Disorientation and perseverative movements during the episode. D. Minimal recall of the event limited to one or two fragmentary images. E. No evidence of a physical disorder such as a brain tumour or epilepsy.
	2. **Sleep terrors**. Recurrent episodes of abrupt terror arousals from sleep, usually beginning with a panicky scream. There is intense fear and signs of autonomic arousal such as mydriasis, tachycardia, rapid breathing, and sweating during each episode. There is relative unresponsiveness to efforts of others to comfort the individual during the episodes. B. No or little (e.g., only a single visual scene) dream imagery is recalled. C. Amnesia for the episode is present. D. The episodes cause clinically significant distress or impairment in social, occupational, other important areas of functioning. E. The disturbance not attributable to the physiological effects of a substance (e.g., a drug of abuse or medication). F. Coexisting mental and medical disorders do not adequately explain the episodes of sleepwalking or sleep terrors. (For specifiers, see DSM-5, p. 399.)	**Sleepwalking** A. Recurrent episodes of rising from bed, usually during the first third of nocturnal sleep, and walking about. B. Blank staring face and unresponsive during an episode. C. No recollection for the episode upon awakening. D. Within several minutes of waking from the episode, no cognitive or behavioural impairment. E. No evidence of an organic mental disorder or a physical disorder such as epilepsy.

Note: DSM-5 diagnostic criteria are reprinted with permission from the *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition* (APA, 2013). Copyright © 2013 American Psychiatric Association. The material in the column headed ICD-10 is a summary of the clinical description and diagnostic guidelines for nightmares, sleep terrors and sleep walking. For the full official WHO clinical descriptions and diagnostic guidelines for these disorders see WHO, 1992, pp. 187–191.

Table 6.3 Goodlin-Jones and Anders classification and diagnostic criteria for sleep onset and night-waking disorders and ASEBA Sleep Problems syndrome scale

Sleep onset problems	*Night-waking*	*ASEBA Sleep Problems syndrome scale CBCL 1.5–5 year olds*
For infants 12–24 months: 1. Takes more than 30 minutes to fall asleep. 2. Parent remains in child's room until sleep onset. 3. More than 3 parent–child reunions involving protests, bids or struggles occur.	For infants 12–24 months, more than 3 wakings per night totalling more than 30 minutes. For toddler 24–36 months, 2 or more wakings per night totalling more than 20 minutes. For children over 36 months, 2 or more wakings per night totalling more than 10 minutes.	Doesn't want to sleep alone Trouble sleeping Nightmares Resists bed Sleeps little Talks or cries in sleep Wakes often
For toddlers over 24 months: 1. Takes more than 20 minutes to fall asleep. 2. Parent remains in child's room until sleep onset. 3. More than 2 parent–child reunions involving protests, bids or struggles occur. An episode is diagnosed if 2 of 3 criteria are met. A settling *disorder* is diagnosed if there are 5–7 episodes per week for at least a month. A settling *disturbance* is diagnosed if there are 2–4 episodes per week for at least a month.	For wakings, the child must have been asleep for more than 10 minutes and must signal the caregiver by crying or calling. A night-waking *disorder* is diagnosed if there are 5–7 episodes per week for more than a month. A night-waking *disturbance* is diagnosed if there are 2–4 episodes per week for more than a month. A night-waking *perturbation* is diagnosed if there is 1 episode per week for more	

A settling *perturbation* is diagnosed if there is 1 episode per week for at least a month.	than a month.

Note: Adapted from Goodlin-Jones & Anders (2004) and Achenbach & Rescorla (2000).

Clinical features and aetiological factors

Clinical features of children's sleep problems along with a consideration of relevant aetiological factors will be outlined later (Dahl & Harvey, 2008; Freeman et al., 2012; Goodlin-Jones & Anders, 2004; Hoban, 2010; Meltzer & Mindell, 2009; Mindell & Owens, 2010; Morgenthaler et al., 2006; Sheldon et al., 2014; Stores, 2001, 2014). Settling and night-waking problems are the most commonly referred and so will be considered first. Some cases of night waking are due to nightmares and these will be considered second. Sleep terrors, sleepwalking and other parasomnias will be dealt with next. Finally, conditions which are associated with excessive daytime sleepiness (other than night waking) will be discussed.

Settling and night-waking problems

Difficulties in going to sleep and persistent night waking (which fall under the DSM or ICD diagnosis of insomnia) are by far the most common sleep problems in pre-school children (Mindell & Moore, 2014). The DSM and ICD definitions of insomnia have limitations when applied to infants and young children since often childhood insomnia does not lead the child to experience clinically significant distress. However, most parents experience clinically significant distress in their attempts to cope with the child's difficulty in initiating and maintaining sleep. The proportion of children showing such problems reduces with age.

Two distinct constellations of factors are associated with night waking: one largely constitutional or biological and the other psychosocial or interactional (Minde et al., 1993). Constitutional factors include peri-natal complications, colic, allergies, asthma, milk intolerance, over-sensitivity or under-sensitivity to external stimuli, and difficult temperament. This constellation of factors probably represents a biologically based problem with arousal regulation. Where infants who have arousal regulation difficulties try to settle or return to sleep after awakening, they are unable to soothe themselves because their arousal level will not alter in response to their self-soothing attempts. Alternatively they may find that awareness of internal or external stimuli maintains their arousal level.

Psychosocial factors associated with settling difficulties and night waking include mother–child attachment difficulties and maternal anxiety or depression. Where there is a secure mother–infant attachment, the mother will allow the infant sufficient time alone when settling or during night-waking episodes to employ self-soothing skills to return to sleep. In cases where an anxious mother–infant attachment has developed, the mother does not leave the infant alone long enough before sleep or during a night-waking episode to develop self-soothing skills.

In any given case, some combination of arousal regulation biological factors and attachment-related psychosocial factors may predispose the infant to developing problems with settling or night waking and maintain the sleep problem when it occurs. Night feeding may further compound settling and night-waking difficulties. Night feeding can lead to less daytime feeding and more wet nappies and related discomfort and waking at night.

Many children have settling and night-waking problems from birth. Others develop them following some precipitating event or set of circumstances. Such precipitating factors may be biological or psychosocial. Biological factors include serious illness or injury. Stressful life events, particularly separation from the primary caregiver (usually the mother) or the occurrence of an event that threatens the child or the family, such as a house burglary, are the most common psychosocial factors contributing to the development of settling and waking difficulties in children who have already developed a robust sleep routine. These precipitating factors may lead to physical discomfort and/or anxiety and heightened arousal which the child is unable to regulate. So the child has difficulty falling asleep or returning to sleep after being awakened by physical discomfort or nightmares.

Nightmares

Nightmares are vivid frightening dreams which occur during REM sleep. Typically the child awakes abruptly in a state of anxiety from a vividly recalled frightening dream. Occasionally sleep paralysis may occur. That is, the lack of muscle tone and motor inhibition that characterizes REM sleep may persist into the waking state. Nightmares may occur as an isolated problem as with DSM and ICD nightmare disorder defined in Table 6.2. However, in clinical practice they usually occur as part of a more global anxiety response to a perceived threat to the child's safety, security or self-esteem or to the safety of the family. Thus they may occur as one aspect of separation anxiety, post-traumatic stress disorder or generalized anxiety disorder. These and other anxiety problems are discussed in Chapter 12.

Nightmares, like other aspects of anxiety, may be maintained by both child and family factors. The adoption of a threat-oriented cognitive set where the child is hypervigilant and interprets both internal and external cues as threatening may maintain the occurrence of nightmares. Parent–child interactions characterized by high levels of anxiety where the child is inadvertently reinforced for adopting a threat-oriented cognitive set may also maintain anxiety. Nightmares may also be maintained by non-supportive parent–child patterns of interaction within which children are unable to ventilate their fears. Such non-supportive patterns of interaction may range from situations where there is parent–child conflict to those where neglect and physical or sexual abuse are occurring. Child abuse and neglect are discussed more fully in Chapters 19–21.

Sleep terrors, sleepwalking and other parasomnias

Sleep terrors and sleepwalking occur during SWS. They are developmental conditions for which there is often a positive family history, and most children mature out of them by adolescence (Rosen, 2014). These parasomnias are probably all part of the same nosological continuum and are quite distinct from nightmares which are anxiety related and occur during REM sleep.

Sleep terrors are often mistaken for nightmares. However, there are distinct differences. With sleep terrors, usually the child sits up in bed and screams loudly or bolts out of bed and moves frantically, as if trying to escape. The child looks terrified, is hyperaroused, and is unresponsive to comforting. With nightmares, the child rarely screams and usually responds to reassurance. Upon awaking from a sleep terror there is no detailed recall of a vivid dream, whereas this is a characteristic feature of a nightmare. Sleep terrors typically occur during the first third of the sleep period whereas nightmares typically occur during the second half of the night.

In sleepwalking episodes, which typically last about 20 minutes, the child usually leaves the bed, may get dressed and walk unresponsively about the house and is resistant to awakening. The main danger with sleepwalking is that the child will be inadvertently injured during the episode.

Head-banging, rocking, tooth-grinding (bruxism) and sleep-talking all occur in NREM sleep stages 1 and 2. While all of these parasomnias may lead to anxiety for the parent or child, injury resulting from head-banging and tooth-grinding is the main clinical concern associated with this group of conditions.

In some forms of epilepsy, attacks occur during sleep and these may involve movements and vocalizations that can be mistaken by parents for parasomnias or nightmares (Grigg-Damberger, 2014). Typically complex partial seizures of this sort are frequent and very brief, lasting less than a minute and so, are clearly distinguishable from nightmares in which no movement occurs and parasomnias in which movement lasts for longer periods.

Daytime sleepiness

Excessive daytime sleepiness in infants and children may occur because of disruption of night-time sleep caused by settling difficulties or persistent night waking discussed earlier. Breathing-related sleep disorders, in which the child is frequently aroused throughout the night because of respiration difficulties, are a second common cause of daytime sleepiness in both children and adolescents. The breathing difficulties may be due to central alveolar hypoventilation or sleep apnoea. With central alveolar hypoventilation, respiratory hypoventilation worsens during sleep but there are no apnoea spells. With sleep apnoea, the child has episodes of 10 seconds or more during which breathing ceases. Usually episodes of loud snoring also occur.

A distinction is made between central and obstructive sleep apnoea, with the latter usually being due to hyperplastic tonsils and adenoids and the former to a lack of diaphragmatic effort. Obstructive sleep apnoea is associated with obesity, rhinitis, hay fever and chronic upper airway infections. While children with sleep apnoea show excessive daytime sleepiness, they also display a broad range of personal difficulties related to the condition. These include irritability, hyperactivity, a reversion to nocturnal enuresis and poor school performance. In children, adenotonsillectomy may lead to a marked improvement in breathing during sleep, reduced daytime sleepiness and improved psychosocial and educational adjustment (Davidson-Ward & Perez, 2014). In infants, some cases of sudden infant death syndrome (SIDS) have been related to central sleep apnoea (Stores, 2001).

In teenagers daytime sleepiness may result from sleep apnoea, a circadian rhythm disorder or narcolepsy. With a circadian rhythm disorder, a mismatch has developed between the teenager's circadian rhythm and the sleep–waking schedule demands of the environment. Usually this mismatch results from going to sleep late and rising late.

Narcolepsy, a lifelong hereditary condition with onset in adolescence, is characterized by frequent brief sleep attacks; brief attacks of cataplexy in which there is a loss of muscle tone; sleep paralysis; and hypnopompic or hypnogogic hallucinations (Katagal, 2014). These occur as the child is entering sleep or waking. Often teenagers suffering from narcolepsy fear that they are going insane because of the bizarreness of these hallucinations. The cataplexy, sleep paralysis and hallucinations all represent the intrusion of REM phenomena into waking life.

Klein-Levin syndrome occurs typically at puberty and is characterized by recurrent outbreaks, of about 2 weeks' duration, of hypersomnia, hyperphagia, aggression and sexual disinhibition (Sheldon, 2014). Often there is a prodromal phase characterized by fever, vomiting, photophobia and irritability. The condition usually resolves in late adolescence.

Assessment of children with sleep problems

In assessing children with sleep problems, it is important to inquire both about details of the child's sleeping routines and about the psychosocial context within which these problematic sleep routines occur, including a consideration of predisposing, precipitating and maintaining factors. Figure 6.2 provides a framework for assessing contextual factors of particular relevance to the aetiology of sleep problems in infants and children. This framework is intended as a supplement to routine assessment procedures described in Chapter 4.

Sleep routines

Inquiries about sleep routines and problems should focus on

- bedtime routines
- night-waking routines
- daytime sleeping routines.

Bedtime routines. When asking about bedtime routines it is important to identify factors that may promote the development of good sleep habits and those that may maintain a disturbed sleeping pattern. Find out when the child is last fed and changed before bedtime, since both hunger and a wet uncomfortable nappy may both prevent the child from settling. Ask about who puts the child to bed and where and at what time this occurs. If this occurs following a set routine, good sleep habits are being fostered. If the time, place and people involved in bedtime routines change erratically, this may be contributing to settling difficulties. Inquire about and how parents or carers respond while the child is waiting to go to sleep and how long this process takes. Ask if the child is permitted to use self-soothing skills or if the parent rocks or feeds the child to help soothe the child to sleep. Children who are allowed to master self-soothing skills tend to develop good settling habits. Where parents do not permit children to develop these skills, settling problems may occur. Long sleep-onset periods exhaust parents and are very stressful.

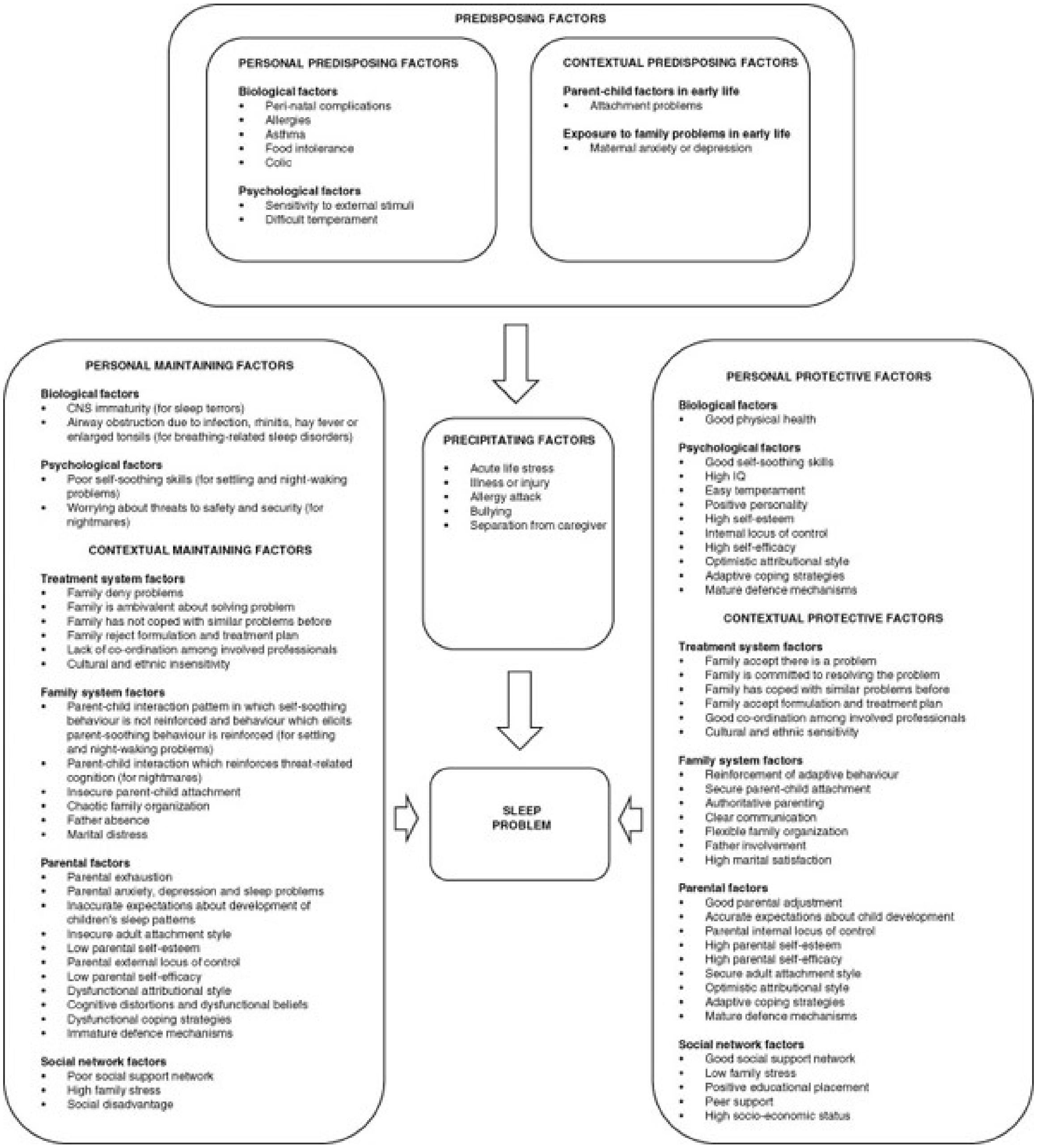


Figure 6.2 Factors to consider in childhood sleep problems

Night-waking routines. Inquiries about night-waking patterns should clarify first if nightmares, sleep terrors, sleepwalking, sleep-talking, rocking, head-banging, bruxism, breathing difficulties, or other parasomnias precipitate episodes of night waking. Inquiries about when waking occurs, how often it occurs, for how long the child remains awake and how the return to sleep is managed should also be made. As with assessing bedtime routines, ask if the child is permitted to use self-soothing skills to return to sleep or if the parent rocks or feeds the child to help soothe the child to sleep.

Daytime sleeping routines. Daytime sleeping and activity patterns should also be assessed since daytime naps or inactivity may prevent night-time sleeping. Where a child's daytime sleep greatly exceeds the norms presented in Figure 6.1, this hypothesis should be further investigated. In assessing daytime sleeping routines, the amount of daytime sleeping and circumstances surrounding daytime naps should be explored. In particular inquiries should be made about the number of naps per day, the times at which they occur, the duration of each nap, whether they were initiated and ended by the child or the parent, and any factors that alter the child's typical pattern.

Sleep diaries. Information from assessment interviews may be supplemented with sleep diary records (Stores, 2001). The sleep diary contained in Figure 6.3 may be photocopied and enlarged onto an A3 sheet of paper for parents to complete. It is useful for parents to keep a sleep diary throughout the course of both assessment and treatment, since sleep diaries allow improvement or deterioration in sleep problems to be continuously monitored.

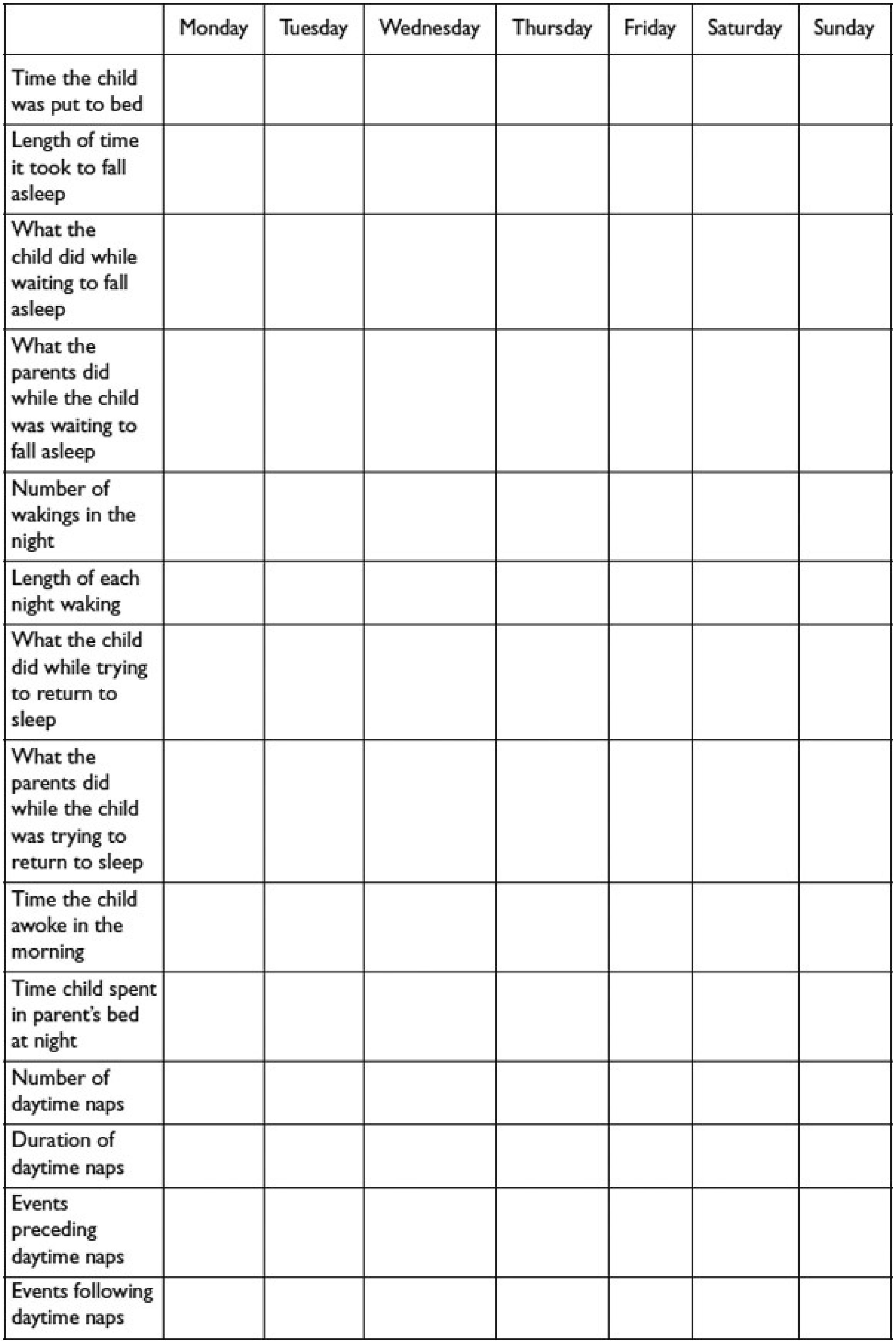
Special assessment procedures. Psychometric instruments that may be a useful supplement to information provided by interview and sleep diaries are listed in Table 6.4. Videotape and audiotape recordings may usefully be used in the preliminary assessment of breathing-related sleep disorders. Actimetres, which are small wrist-watch-like devices, may be used to assess movement during sleep and distinguishing fairly accurately periods of sleep and wakefulness (Stores, 2001). Where sleep apnoea or night-time seizures are suspected or where other assessment procedures yield confusing results, children should be referred for PSG assessment.

Predisposing factors

Predisposing biological factors deserving particular attention during assessment include perinatal difficulties, allergies, asthma, food intolerance, colic, hypersensitivity to external stimuli and difficult temperament. All of these factors may make it difficult for children to use self-soothing routines to regulate their arousal levels. Attachment problems and parental anxiety or depression may compromise parents' capacity to create a social context within which the child develops a view of the world as a safe and secure place where self-soothing skills may be developed.

Precipitating factors

While some sleep problems are present from birth, for others there are clearly identifiable precipitating factors which deserve careful assessment. Biological factors which may precipitate the onset of sleep problems include illnesses, injuries or the development of allergies. Stressful life events, such as entering school or being abused and separations from caregivers, are typical psychosocial factors that may precipitate sleep problems.



	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Time the child was put to bed							
Length of time it took to fall asleep							
What the child did while waiting to fall asleep							
What the parents did while the child was waiting to fall asleep							
Number of wakings in the night							
Length of each night waking							
What the child did while trying to return to sleep							
What the parents did while the child was trying to return to sleep							
Time the child awoke in the morning							
Time child spent in parent's bed at night							
Number of daytime naps							
Duration of daytime naps							
Events preceding daytime naps							
Events following daytime naps							

Figure 6.3 Sleep diary

Note: Photocopy this page and enlarge to A3 size so it may be used as a diary.

Table 6.4 Psychometric instruments that may be used in the assessment of children's sleeping and eating problems

Construct	*Instrument*	*Publication*	*Comments*
Sleep-related behaviours	Paediatric Sleep Questionnaire	Chervin, R., Hedger, K., Dillon, J., & Pituch, K. (2000). Paediatric Sleep Questionnaire (PSQ): validity and reliability of scales for sleep-disordered breathing, snoring, sleepiness and behavioural problems. *Sleep Medicine, 1*, 21–32.	This extensive questionnaire covers all aspects of sleep-related problems and behaviour: personal and family sleep, medical and psychiatric history.
	Sleep Disturbance Scale for Children	Bruni, O., Ottaviano, S., Guidetti, V., Romoli, M., Innocenzi, M., Cortesi, F., & Giannotti, F. (1996). The Sleep Disturbance Scale for Children (SDSC). Construction and validation of an instrument to evaluate sleep disturbances in childhood and adolescence. *Journal of Sleep Research, 5*, 251–261.	This 27-item scale evaluates most common sleep disturbances in children.
	Sleep Questionnaire	Simmonds, J., & Parraga, H. (1982). Prevalence of sleep disorder and sleep behaviours in children and adolescents. *Journal of the American Academy of Child Psychiatry, 21*, 383–388.	This scale evaluates most common sleep disturbances in children. The questionnaire includes 25 items for which 5-point response scales are provided and 29 items for which yes/no response categories are given.
	Children's Sleep Habits Questionnaire	Owens, J., Spirito, A., & McGuinn, M. (2000). The Children's Sleep Habits Questionnaire (CSHQ): Psychometric properties	This scale evaluates most common sleep

	for school-aged children	of a survey instrument for school-aged children. *Sleep, 23*, 1043–1051.	disturbances in children.
	Children’s Sleep Habits Questionnaire for adolescents	Wolfson, A., & Carskadon, M. (1998). Sleep schedules and daytime functioning in adolescents. *Child Development, 69*, 875–887.	This survey covers usual sleep and wake times on weekdays and weekends to assess total sleep time, sleep regularity, weekend delay and weekend over-sleeping. It also has items to assess daytime sleepiness.
	Brief Infant Sleep Questionnaire for ages 0–3 years	Sadeh, A. (2004). A brief screening questionnaire for infant sleep problems. Validation and findings for an internet sample. *Paediatrics, 113*, 570–577.	This 10-item survey covers basic sleep habits including sleep duration, night wakings and methods of falling asleep.
Daytime sleepiness	Epworth Sleepiness Scale	Johns, M. (1991). A new method for measuring daytime sleepiness: The Epworth Sleepiness Scale. *Sleep, 14*, 540–545.	For each of eight items respondents indicate on a scale from 0–3 the likelihood that they would fall asleep.
	Paediatric Daytime Sleepiness Scale	Drake, C., Nickel, C., Burduvali, E., Roth, T., Jefferson, C., & Badia, P. (2003). The Paediatric Daytime Sleepiness Scale (PDSS): Sleep habits and school outcomes in middle-school children. *Sleep: Journal of Sleep and Sleep Disorders Research, 26*, 455–458.	This eight-item scale assesses daytime sleepiness.
	Cleveland	Spilsbury, J., Drotar, D., Rosen, C., & Redline, S. (2007). The Cleveland Adolescent Sleepiness	For each of 16 questions adolescents give

	Adolescent Sleepiness Questionnaire	Questionnaire: A new measure to assess excessive daytime sleepiness in adolescents. *Journal of Clinical Sleep Medicine, 3*, 603–612.	responses on 5-point scales to obtain indices of sleepiness and alertness.
Night-time coping	Night-time Coping Inventory	Mooney, K. (1985). Children's night-time fears: Ratings of content and coping behaviours. *Cognitive Therapy and Research, 9*, 309–319.	Twenty coping strategies to deal with night-time fears are rated on 5-point scales. Strategies fall into six categories: self-control; social support; clinging to inanimate objects; control over inanimate objects; control over inanimate environment; and control over others.

Maintaining factors

Specific repetitive patterns of interaction between children and parents typically maintain some sleep problems. With many settling difficulties and night waking, the pattern usually involves the parents permitting the child to have extended daytime naps and not permitting the child to have opportunities for self-soothing during the settling period or following night waking. For the child, there is a repeated pattern of engaging the parent in soothing behaviour rather than persisting with self-soothing behaviour. For settling and night-waking problems associated with nightmares, parent–child interactions that intensify rather than alleviate the anxiety which finds expression in the nightmare may maintain the sleep problems. The child's anxiety may be maintained by continual exposure to situations which pose a threat to the child's safety, security or self-esteem such as ongoing bullying or abuse. In other situations, the anxiety may occur as part of a reaction to an acute trauma; that is, as part of a post-traumatic stress disorder. Where children are not offered a supportive context within which to process anxiety associated with such trauma and are encouraged to repress or avoid experiencing the intrusive emotions and images of the trauma, these factors may maintain the occurrence of nightmares. Co-morbid conditions may maintain sleep problems through biological or psychosocial mechanisms. Such co-morbid conditions include ADHD, ASD, anxiety and mood disorders, cerebral palsy, neuromuscular disease and visual impairment. With sleep apnoea, airway obstruction may maintain the breathing-related sleep problem. Sleep terrors, sleepwalking and other parasomnias are probably maintained by nervous system immaturity.

Where children have sleep problems, particularly settling and night-waking problems, and parents have tried over a period of months or years to solve the problem with little success, further family difficulties occur that may compound the sleep problems. Parents become sleep-deprived and exhausted. Their capacity to maintain a co-operative and satisfying marital relationship may deteriorate. Major arguments may occur in the middle of the night as parents disagree on how best to manage the child's sleep difficulties. The deterioration in the marital relationship and exhaustion may in turn lead to curtailment of the couple's social life and a reduction in the amount and quality of social support available to each partner. This absence of support in turn may further diminish their capacity to manage the child's sleep difficulties. As sleep difficulties persist, the quality of parent–child relationships may also deteriorate. This may be compounded by factors related to other children in the family. Where there are other children in the family who have not had sleep difficulties, parents may construe the child with sleep difficulties as wholly problematic and in contrast construe the sibling without sleep problems as wholly good. Where all children in the family have had sleep problems, parents' tolerance and capacity for positive parent–child relationships may become extremely eroded by the ongoing sleep deprivation and exhaustion. Where there are no siblings, parents may become particularly resentful that their once satisfying marriage has become conflict-ridden as a result of the child's sleep difficulties. They may also come to doubt their adequacy as parents in the light of their repeated failure to solve the child's sleep difficulties. That is, their parenting self-efficacy beliefs may diminish. Where mothers are pregnant with their second child and their first continues to have sleep difficulties, a sense of despair may occur as the parents anticipate managing the persisting sleep difficulties of the firstborn child and the additional demands of the new-born sibling. As with all family problems, external stresses such as those associated with parental work situations may further erode the energy that parents have available to deal with the sleep difficulties.

Protective factors and family resources

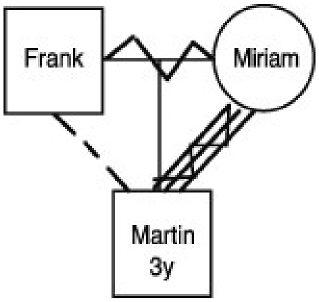
The probability that a sleep management programme will be effective is influenced by a variety of protective factors associated with the child and the family. It is important that these be assessed and included in the later formulation, since it is protective factors that usually serve as the foundation for therapeutic change. Easy temperament and a wish to solve the sleep problem are two important protective factors associated with the child as an individual. Parental commitment to resolving the problem, strong parental self-efficacy beliefs, secure parent–child attachment, marital satisfaction, the availability of social support and low extrafamilial stress are important contextual protective factors.

Most parents will have tried a wide variety of solutions to their children's sleep problems before consulting a clinical psychologist. It is important to obtain a clear detailed account of each solution that was tried, because often valid sleep management practices have been used by parents but not for long enough or under unfavourable circumstances. For example, parents who use systematic ignoring of night-time crying for 2 nights while on holiday in a caravan when their child has an ear infection made little impact on the child's night-waking problem. However, the same strategy applied for a longer duration at home while the child was healthy helped the child develop self-soothing skills that permitted a return to sleep following night waking. If it is suggested that methods that have led to failure be tried again without previous failures, with such methods being first discussed and reasons for the failure being clarified, then parents may become disillusioned with the consultation provided by the clinician.

Formulation

Salient features from the assessment should be drawn together into a formulation which begins with a statement of the central features of the sleep problems and then links these to predisposing, precipitating and maintaining factors. Protective factors and family resources that have implications for resolving the problem should also be mentioned. The case example in Box 6.1 is written in the format of a formulation. This formulation suggests certain treatment goals and may provide the basis for developing a treatment or case management plan. Goals might include the reduction in the length of time it takes for Martin to settle and helping Martin to develop self-soothing skills so that he can return to sleep unaided when he awakes at night. A reduction in the duration and frequency of daytime naps and the provision of opportunities to develop self-soothing skills are possible methods suggested by the formulation for achieving these goals. Finally the formulation highlights the fact that if the management programme is to succeed it must take account the parental exhaustion, anxiety and marital tension which have evolved around the child's sleeping difficulties.

Box 6.1 A case example of a child with a sleep problem



Martin is a 3 year old boy who has problems with both settling down to sleep at night and returning to sleep following night waking. He currently takes about 30 minutes to settle at night (at some time between 6.00 pm and 8.00 pm). He usually does so while being held by his mother and being bottle fed on soya milk because he is allergic to cow's milk. He wakes every night on one or two occasions (often at about 1.00 am and 4.00 am) and returns to sleep in the parents' bed where he typically spends the second half of the night, only after being changed and bottle-fed.

He was predisposed to developing these sleeping problems because he had both milk intolerance and asthma. In addition he has a difficult temperament with marked irregularity in developing routines and intense arousal to minor stimuli. His asthma has led to a number of quite serious attacks for which he was hospitalized.

The sleep difficulties are maintained by the lack of opportunity Martin has for developing self-soothing skills that do not involve feeding. The pre-sleep feeds and being held by the mother prevent the developing of self-soothing skills. The large pre-sleep feeds also lead to later discomfort when he wets his nappy. Lengthy daytime naps are another factor maintaining both the settling and night-waking difficulties.

The daytime naps, pre-sleep feeding, holding and the inclusion of Martin in the parents' bed in the second part of the night occur because of a combination of parental exhaustion and anxiety. Both parents have become exhausted by 3 years of broken sleep. Since the asthma attacks the parents, particularly Miriam (the mother), have also developed anxiety about Martin's well-being. The anxiety about the child's health and exhaustion has placed a strain on the marital relationship and the management of the child is now largely Miriam's responsibility, with Frank making little input and offering little support. Often Frank sleeps alone because he finds that he cannot meet the demands of a pressured work situation if his sleep is broken by Martin's night waking.

Protective factors in this case include the parents' commitment to jointly resolving the problem, their excellent relationship with Martin and their capacity to work co-operatively with the clinical team.

Management of sleep problems

For settling and night waking, which are the most common sleep problems, the structured approach described shortly conducted over about five sessions has been shown to be highly effective (Mindell & Moore, 2014; Morgenthaler et al., 2006). The development of a working alliance and a shared understanding of the problem occurs during the assessment and formulation process. The working relationship ideally should be one where the parents experience the clinician as collaborating with them in helping the child to develop settling and self-soothing skills. Contracting for a sleep management programme and goal setting is particularly important because the process of following through on most sleep management programmes is so demanding. This is especially the case for parents who are already exhausted, anxious, unsupported, engaged in marital conflict or stressed by extrafamilial pressures. Parents should be offered a time-limited contract for a specific number of sessions to achieve particular goals. For example, six sessions over 12 weeks to reduce settling time to 10 minutes and to help the child to develop self-soothing skills so that he can return to sleep unaided when he awakes at night. It is also important to warn parents that the process can be demanding, and so the timing of the programme should not coincide with the occurrence of other family stresses such as Christmas or an excessively busy work period for either parent. Where appropriate, parents should be encouraged to mobilize social support either from each other, friends or the extended family. For example, parents may be invited to set aside one evening a week when they go out for a drink or a meal as a couple and take turns of 15 minutes listening actively to their partner and avoiding evaluating or arguing with the content of what the partner says. Where sleep management programmes fail, it is usually because other family stresses, lack of social support, inter-parental co-operation difficulties, parental depression or other parental and family problems have prevented parents from following through on agreed sleep management programme plans (Douglas, 1989, 2005).

For each child, a unique sleep management programme is required. Such programmes are developed in light of the formulation and typically include some of the following strategies which are based on the behavioural principles of shaping, fading, discrimination training, extinction and reinforcement, and on cognitive principles of script and schema development (Mindell & Moore, 2014; Douglas & Richman, 1985):

- gradual reduction or elimination of daytime sleeping
- gradual reduction or elimination of pre-sleep feeds or drinks
- the development of pleasant bedtime routines
- gradual or sudden movement of bedtime routines from a time when the child is highly likely to sleep to an earlier time
- gradual or sudden provision of opportunities to use self-soothing skills while the child is first going to sleep
- gradual or sudden provision of opportunities to use self-soothing skills following night waking
- coaching children in self-soothing relaxation skills
- reward training and extinction.

For some of these strategies the choice is between an abrupt or sudden change and a gradual change. Because infants typically respond to sudden changes in routines with persistent crying and because this is particularly stressful for both the child and the parents, where possible gradual change procedures are preferable. Also, most parents will have received advice to use sudden change procedures and found these to be ineffective and distressing so will be reluctant to try them again. For example, most parents will have been advised to let their children cry until the child falls asleep. Many parents manage this approach for 3 or 4 consecutive nights but eventually lift the child to prevent the crying which had become intolerable for them. This invariably leads to the child's crying persisting for more than 5 or 6 nights after this. The duration of the crying also extends so many parents revert to lifting, rocking or soothing the child and give up attempts to help the child develop self-soothing skills.

Reducing daytime sleeping. Reduction of daytime sleeping may be achieved by helping children to cut down on the number of daytime naps they take or the duration of daytime naps. Napping may be replaced by activities that the child finds enjoyable. Naps may be shortened by waking the child after a set time has elapsed. Parents find this process demanding because often the child's daytime naps afford the exhausted parent an opportunity to doze or spend some time doing something other than caring for the infant.

Eliminating pre-sleep feeds. Where children have large feeds before settling, the time lapse between these feeds and sleeping may be gradually extended and the time of the last nappy change brought gradually closer to bedtime so that the chances of the child awakening because of the discomfort of a wet nappy are minimized. In cases of night waking where children return to sleep following feeding, the frequency and extent of these may be gradually reduced.

Developing bedtime routines. Pleasant bedtime routines including washing, changing, comforting, cuddling a special doll or teddy bear, storytelling and singing may be developed and standardized so that the child can learn exactly what to expect at bedtime. Through this type of discrimination training the child develops a bedtime script. Where part of the sleep problem is children's reluctance to go to bed early, these routines may first be conducted at a time when the child is most likely to sleep and then they may gradually be moved to an earlier time in the evening.

Gradual provision of self-soothing opportunities. The gradual provision of opportunities for the child to use self-soothing to settle or return to sleep involves developing a hierarchy of situations from the child falling asleep in the parent's arms to the child falling asleep alone with the parent out of view and then allowing the child to master each step in the hierarchy. Here is one example of such a hierarchy adapted from Jo Douglas's (1989) work:

1. Place cushions on the lap so the child is falling asleep with less physical comfort.
2. Reduce the tightness of the embrace and encourage the child to sleep more horizontally on the lap or the couch.
3. Place the child in bed to fall asleep after a brief cuddle on the lap but lean over the bed

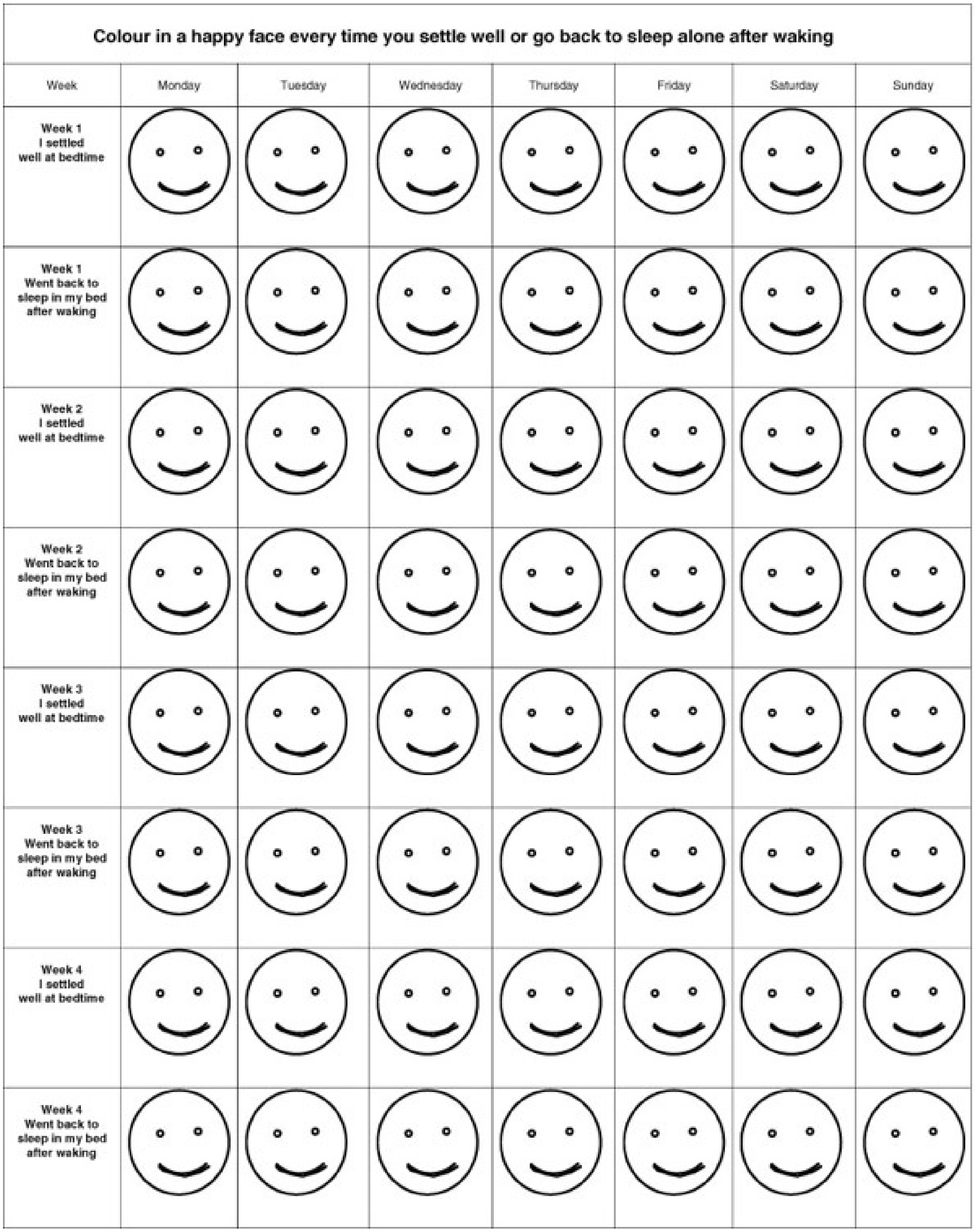
and comfort the child with gentle holding and stroking.
4. Encourage falling asleep in bed but reduce holding and stroking.
5. Sit beside the bed and touch the child gently while falling asleep.
6. Sit beside the bed but do not touch the child.
7. Move the chair 2 feet from the bed and avert gaze while the child falls asleep.
8. Move to the other side of the room while the child falls asleep.
9. Move out of eyesight while the child falls asleep.
10. Stand outside the door while the child falls asleep.

Coaching in relaxation skills. After the age of 3, children may be coached by the clinician or the parent in self-soothing relaxation skills. Simplified progressive muscle relaxation training and sleep inducing guided imagery may be used. With very young children aged 3 to 4 years, I have found a simple four muscle group version of relaxation training very effective with toddlers. The four exercises are

- clench and relax the hands
- point the toes upwards and relax them
- hunch the shoulders and relax them
- tense the stomach muscles after inhaling and relax them on exhaling.

For guided imagery, any image that reduces arousal may be used. For example, imagining the sun going down and the wind dying or a bird flying into the distance have been found by many children to be arousal reducing. With young children, variations on sheep-counting tend to increase arousal because counting is not an automatic skill and so requires concentration and heightened arousal. Some children find they can learn to use recordings of particular pieces of music and recorded stories to reduce their arousal and soothe themselves to sleep.

Reward training and extinction. Using a smiling-face chart like that presented in Figure 6.4 or small prizes from a prize box may be used to reinforce appropriate sleep-related behaviour, such as preparing for bed at a set time, drinking the last drink of the day an hour before bedtime, avoiding calling parents to the bedroom after they have said their final goodnight, and using self-soothing skills following night waking rather than entering the parents bed. Rewarding these behaviours increases the likelihood they will recur and the child will develop appropriate sleep habits. Inappropriate sleep-related behaviours may be extinguished by ignoring them. Thus, objecting to beginning the bedtime routine or calling for the parent to come to the room following the last goodnight may all be ignored and eventually these inappropriate habits will rarely recur. As with all sleep management techniques, it is important that the parents’ intention to help the child develop self-soothing and sleep management skills be explained to the child and that the rationale for the procedure be outlined to the child in terms that the child can understand. If the child understands that reward training and extinction are being used to help him or her *become a big boy or girl*, and are not viewed as punishments which define the child as *a bad boy or girl*, then the chances of co-operation and problem resolution are maximized.



Colour in a happy face every time you settle well or go back to sleep alone after waking

Week	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Week 1 I settled well at bedtime	☺	☺	☺	☺	☺	☺	☺
Week 1 Went back to sleep in my bed after waking	☺	☺	☺	☺	☺	☺	☺
Week 2 I settled well at bedtime	☺	☺	☺	☺	☺	☺	☺
Week 2 Went back to sleep in my bed after waking	☺	☺	☺	☺	☺	☺	☺
Week 3 I settled well at bedtime	☺	☺	☺	☺	☺	☺	☺
Week 3 Went back to sleep in my bed after waking	☺	☺	☺	☺	☺	☺	☺
Week 4 I settled well at bedtime	☺	☺	☺	☺	☺	☺	☺
Week 4 Went back to sleep in my bed after waking	☺	☺	☺	☺	☺	☺	☺

Figure 6.4 Child’s star chart for sleep problems

The effectiveness of reward training may be improved by initially rewarding all approximations to appropriate sleep-related behaviour so as to gradually shape appropriate sleep behaviour. The effectiveness of extinction, where children enter the parents’ bed, may be increased if parents in a low-key way return the child to bed immediately after they enter the parents' bedroom and ignore subsequent calling out.

For rewards to be maximally effective, they should be highly valued by the child and given as close to the behaviour they are rewarding as possible, unless doing so would disrupt the development of appropriate sleep behaviour. If a reward chart is being used, it should be discussed with the child in a way that allows the child to see that colouring in a face or getting a sticker to put on the chart is a highly desirable event. If a prize bag is being used, the little prizes in the bag should be small treats, toys or food that the child likes a lot and prefers to other alternatives. Bedtime routines may be rewarded before the child goes to sleep (provided the rewards do not involve eating tooth-rotting sweets or candy!). Appropriate behaviour following night waking is probably best rewarded the next morning, since to reward at night might interfere with a return to sleep.

For children who do not respond to behavioural treatment of settling and night-waking problems exogenous melatonin is sometimes effective (Owens, 2014). Melatonin is a sleep-inducing hormone secreted mainly by the pineal gland in response to darkness and suppressed by light.

Treatment of circadian rhythm disorder. In circadian rhythm disorder there is a mismatch between the circadian rhythm and the sleep–waking schedule demands of the environment. Usually this mismatch results from going to sleep late and rising late. The mismatch may be overcome by moving bedtime forward 2 or 3 hours each day and avoiding daytime naps until the required bedtime is reached (Herman, 2014; Lack et al., 2009). Thus where a child will not sleep until 9.00 pm, but the parents would like bedtime to be 6.00 pm, would be set a schedule to go to sleep at 12.00 midnight, 3.00 am, 6.00 am, 9.00 am, 12.00 am, 3.00 pm, 6.00 pm over a 7-day period. This is an exhausting process and requires considerable planning.

Treatment of night-time fears and nightmares. Reassurance that the bedroom is a safe place and that nightmares are only dreams is the appropriate way to manage mild bedtime fears and occasional nightmares. Where sleep paralysis occurs following nightmares, children may be shown how to terminate such paralysis by engaging in sustained voluntary eye-movements. Physical contact from the parent may also terminate this very frightening state. When children develop night-time fears significant enough to lead to a referral to a clinical psychologist, it is unlikely that such simple reassurance will be of much value in helping the child develop a less troubled sleep pattern. Typically the night-time fears and nightmares occur as part of a broader reaction to a life situation that involves threats to the child's safety, security or self-esteem. Such threats may include moving house, changing school, parental separation, parental hospitalization, birth of a sibling, car accidents, burglary, bullying and physical or sexual abuse. Bedtime fears and nightmares may reflect the child's attempt to process and gain control over incomprehensible or threatening features of their current life situation (Mooney & Sobocinski, 1995).

Both psychological and pharmacological interventions (prazosin) have been shown to help children overcome nightmares (Augedal et al., 2013). Effective psychological interventions involve working collaboratively with children and their parents. Parents attend children's treatment sessions, observe the treatment process and learn the treatment skills so that they can help the child continue the treatment between sessions in the home context. The following are the key elements for treating nightmares in children. Invite children to describe their nightmares in detail. Empathize with their fears. Help children rescript their nightmares so that in the re-scripted version of the nightmare scenario children master the situation, by for example defeating an attacker. If there is more than one nightmare, organize these into a hierarchy from the least to the most anxiety provoking. This is facilitated by having children rate how anxiety provoking each nightmare is on a scale of 1 to 10. Use guided imagery to repeatedly expose children to vivid visual images of re-scripted nightmares until they habituate to these images. Progress from the least to the most anxiety-provoking nightmare, and only progress from one scenario to the next when the child is able to vividly imagine a nightmare without it evoking a high level of anxiety. In guided imagery trials, invite children with their eyes closed to listen to you recounting the re-scripted nightmare, and to imagine it in their mind's eye as vividly as possible as if they were watching a film. When conducting guided imagery, periodically ask children to give anxiety ratings on a scale from 1 to 10. In each guided imagery trial help the child maintain the nightmare image, by repeatedly describing it, until the anxiety rating has dropped to a relatively low level such as 2 or 3 on the 10-point scale. Reinforce children for bravery and for engaging with this imaginal exposure process. Prior to conducting imaginal exposure, train children in relaxation skills and positive coping self-statements such as 'You are brave. You can overcome this.' Encourage children to use relaxation and coping self-statements to reduce arousal during the imaginal exposure process. This type of therapy, which draws on both cognitive-behavioural therapy and attachment theory, allows children to process negative affect, to develop a coherent cognitive model of what may be an overwhelmingly confusing situation, to overcome avoidance routines in which both parents and children avoid talking about anxiety-provoking life situations, and to strengthen their view of parents as a secure base. A similar procedure is used to deal with nightmares and flashbacks in post-traumatic stress disorder, described in Chapter 12.

Managing food intolerance. Physical discomfort associated with cow's milk intolerance was identified as an important factor causing sleep difficulties in about 10% of referrals to a paediatric sleep clinic, and these cases showed normalization of sleep patterns after 5 weeks when cow's milk products were removed from the children's diets (Kahn et al., 1989). Soya milk or goat's milk may be used as alternatives to cow's milk in such cases.

Treatment of parasomnias. For all the parasomnias, but particularly sleep terrors and sleepwalking, it is important to reassure parents and children that parasomnias do not reflect psychological maladjustment but rather CNS immaturity which most children grow out of by the end of adolescence. Practical methods for preventing inadvertent self-injury may be explored for those parasomnias where risks of injury are present. Sleep terrors and sleepwalking can be controlled in some instances by administering benzodiazepines at bedtime to reduce stage 4 activity (Rosen, 2014; Stores, 2001).

Treatment of sleep terrors. For sleep terrors, the management approach of choice is scheduled waking treatment coupled with parental psychoeducation about sleep terrors (Lask, 1995; Rosen, 2014). Initially parents are given psychoeducation about the difference between nightmares (which occur in REM sleep and are caused by anxiety) and sleep terrors (which occur in SWS and are due to nervous system immaturity). With scheduled waking, on 5 successive nights parents observe their child sleeping and note the time at which the sleep terror episodes occur. If the episodes tend to occur at a relatively fixed time, parents are advised to wake their child 10–15 minutes before the sleep terror is expected and to keep the child awake for 15 minutes. This procedure is followed for 5–7 consecutive nights. If terrors do not occur at a fixed time, parents are advised to watch for signs of autonomic arousal preceding sleep terror episodes and to immediately wake their child if such signs occur. In such cases, this procedure is followed for 5–7 consecutive nights. Scheduled waking treatment probably prevents the occurrence of sleep terrors by interrupting faulty SWS patterns.

Management of disorders of excessive daytime sleepiness. The differential diagnosis of obstructive sleep apnoea which leads to excessive daytime sleepiness and narcolepsy is best made in a sleep laboratory, where those episodes during which the child stops breathing may clearly be identified or their presence ruled out. Where it is clear that episodes of sleep apnoea are not present and that the child is getting a good night's sleep it is probable that narcolepsy is present, particularly if sleep paralysis, hypnogogic hallucinations and cataplexy are present. Parent education about this lifelong disorder, sleep hygiene counselling and pharmacological management are the main components of a comprehensive treatment approach to narcolepsy (Katagal, 2014). With respect to education it should be made clear that narcolepsy is not a reflection of laziness or emotional disturbance but a neurological condition of unknown aetiology. With respect to sleep hygiene, children should be allowed two 15-minute daytime naps. Teenagers should be advised to avoid alcohol, street drugs and not to drive. Regular sleeping hours and regular exercise are also advised. From a pharmacological perspective, the ideal treatment is a stimulant to combat daytime sleepiness and a tricyclic agent to counteract cataplexy. Commonly used stimulants include pemoline sodium, methylphenidate, and dextroamphetamine. Imipramine is the most commonly used tricyclic.

Where the results of a sleep laboratory assessment show that obstructive sleep apnoea is present, the treatment of choice is adenotonsillectomy (Davidson-Ward & Perez, 2014). Where children have neuromuscular disorders an uvulopalatopharyngoplasty may be indicated. Here the uvula, the tonsils and a portion of the soft palate are removed. Artificial airways such as nasopharyngeal tubes and nasal continuous positive airway pressure are alternatives. However, these are usually not well tolerated by children and so are not long-term solutions. If these procedures fail then a tracheotomy is the final treatment option.

Summary

Sleep is not a unitary state but includes 50–90 minute cycles of SWS which is guessed to be restorative and REM sleep which may be important for cognitive development and efficiency. With age, overall sleep requirements decrease and sleep architecture changes. Cycles lengthen towards 90 minutes and the amount of REM sleep in each cycle decreases.

A distinction may be made between dyssomnias and parasomnias which are the two main types of sleep problems. Dyssomnias include those problems characterized by abnormalities in the amount, timing or quality of sleep. Behavioural and physiological abnormalities occurring during sleep characterize the parasomnias. The dyssomnias include insomnia, hypersomnia, narcolepsy, breathing-related sleep disorder (sleep apnoea), and circadian rhythm sleep–wake disorder. The parasomnias include nightmares, sleep terrors, and sleepwalking.

In assessing children with sleep problems, it is important to inquire both about details of the child's sleeping routines and about the psychosocial context within which these problematic sleep routines occur. Salient features from the assessment should be drawn together into a formulation which begins with a statement of the central features of the sleep problems and then links these to predisposing, precipitating and maintaining factors. Protective factors and family resources that have implications for resolving the problem should also be mentioned.

A unique sleep management programme developed in the light of the formulation should be drawn up in each case. Where psychosocial factors are central to the maintenance of settling or night-waking problems, the plan should be based on the following principles: gradual reduction or elimination of daytime sleeping; gradual reduction or elimination of pre-sleep feeds or drinks; the development of pleasant bedtime routines; gradual or sudden movement of bedtime routines from a time when the child is highly likely to sleep to an earlier time; gradual or sudden provision of opportunities to use self-soothing skills while the child is first going to sleep; gradual or sudden provision of opportunities to use self-soothing skills following night waking; coaching children in self-soothing relaxation skills; reward training; and extinction. Circadian rhythm disorder may be managed by moving bedtime forward 2 or 3 hours each day.

Nightmares may be treated with imaginal exposure and parents may be coached in how to continue this treatment between sessions. Where sleep problems are associated with food intolerance, substitute foods such as soya milk or goat's milk may be used as alternatives to cow's milk in such cases. For all the parasomnias it is important to reassure parents and children that parasomnias do not reflect psychological maladjustment but rather CNS immaturity which most children grow out of by the end of adolescence. Practical methods for preventing inadvertent self-injury may be explored for those parasomnias where risks of injury are present. Sleep terrors and sleepwalking can be controlled in some instances by administering benzodiazepines at bedtime to reduce stage 4 activity, although the management approach of choice is waking treatment. Parent education, sleep hygiene counselling and pharmacological management are the main components of a comprehensive treatment approach to narcolepsy. For obstructive sleep apnoea, the treatment of choice is adenotonsillectomy.

Exercise 6.1

Construct a preliminary formulation and treatment plan for this case.

Joe and Fay Roberts are at their wits' end. Their 2 year old, Rudy, has settling and night-waking problems. She naps about 4 or 5 times per day. She will not settle when put down and cries or screams until her mother or father lifts her. Eventually she nods off when being fed. She continues to be breastfed regularly on demand. At night she wakes 2 or 3 times, often with a wet nappy or diaper. She will only return to sleep if fed. She often sleeps the second half of the night in the parents' bed, which is not a problem for Joe or Fay. However, the sleep loss both are experiencing is leading to exhaustion for both of them. Joe recently changed jobs and has on some occasions slept in the spare room because he finds he cannot meet the demands of his job after repeated night wakings. Fay, who had intended to return to work when Rudy was about a year old, now says she could not imagine ever having sufficient energy or confidence to go back to work. The couple rarely go out with their friends and see little of the extended family. Most of the weekend is devoted to housework or sleeping.

Further reading

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Website

Medscape: http://emedicine.medscape.com/article/916611-overview

Chapter 7

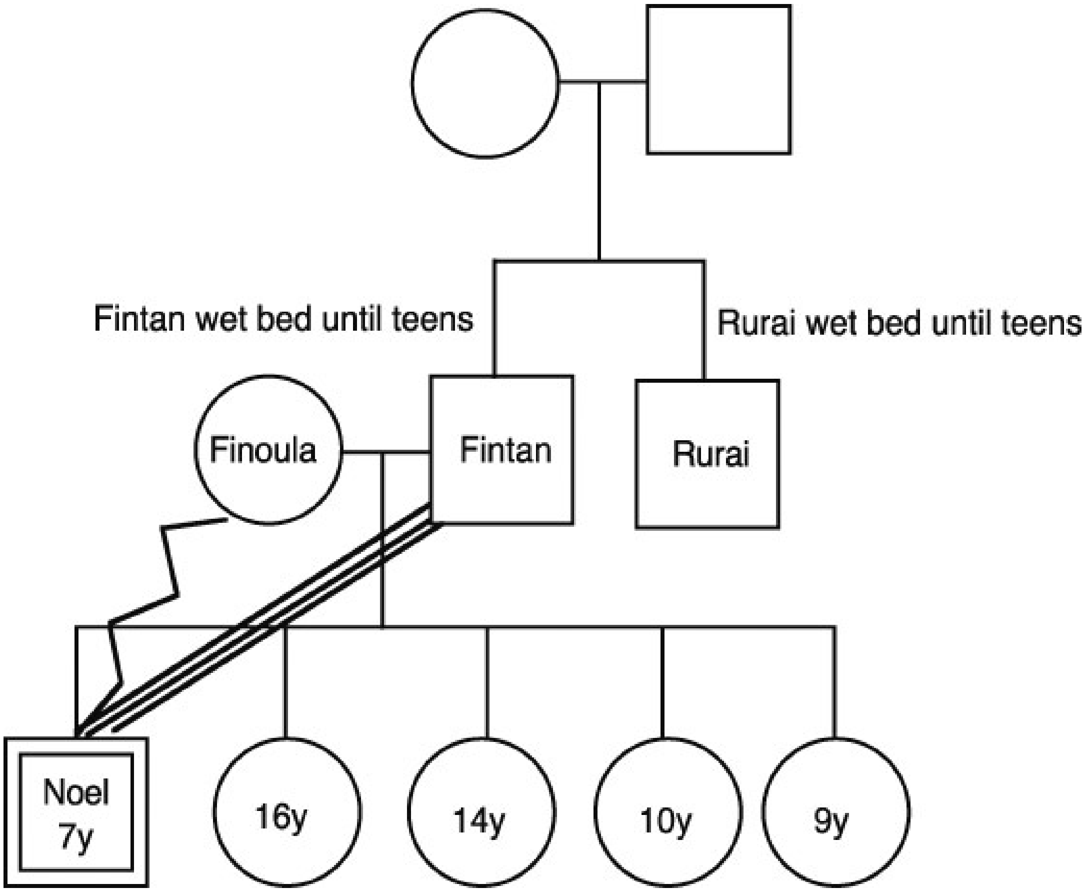
Toileting problems

The development of bladder and bowel control occurs in a stage-wise manner in most children during the first 5 years of life (Butler, 2008; Campbell et al., 2009; Christophersen & Frimen, 2010; Houts, 2010; Mellon, 2012; von Gontard, 2012a, 2012b; von Gontard & Neveus, 2006; Williams & Jackson, 2012). In the first months of life the child is incontinent. Gradually the child develops bowel control at night. This is followed by the development of bowel control during the day. Next, the child learns to control the bladder during the day and finally most children by the age of 5 learn to control their bladder at night. Most children follow this sequence although there is some variation within the population. Girls develop bowel and bladder control more quickly than boys. By 4 years of age most children have developed bowel control and by 5 most children have developed bladder control, so these ages are used as the cut-off ages for diagnosing encopresis and enuresis, respectively. Each day most children defecate once and void their bladder 5–7 times.

Enuresis and encopresis, or wetting and soiling, are the main toileting problems which come to the attention of clinical psychologists. A case example of enuresis is presented in Box 7.1, and in Box 7.2 a case example of encopresis is given. Children are typically referred for treatment with toileting or elimination problems if they fail to achieve bladder and bowel control by the age of 4 or 5 years. Nocturnal enuresis (bedwetting) and diurnal encopresis (daytime soiling) are the most common clinical presentations. These problems are of concern to clinical psychologists, principally because they have a negative impact on children's social and educational development. Children with elimination problems may be excluded from school, ostracized by their peers and may develop conflictual relationships with their parents. This in turn can lead to the development of academic attainment problems, low self-esteem, and secondary emotional or conduct problems.

Box 7.1 A case of enuresis

Noel, aged 7, was referred because he had never developed nocturnal bladder control, with one exception. When on holiday with his aunt in Cork in the summer before the referral was made, he did not wet the bed. The wet beds which followed this incident led to considerable conflict between Noel and his mother, Finoula, who interpreted the relapse as an act of deliberate aggression against her. The parents, Finoula and Fintan, had alternated between taking a lenient understanding approach and a critical punitive approach with Noel since he was about 4 years of age. They had difficulty agreeing on how best to manage Noel's wetting and it often led to acrimonious rows, with Fintan arguing for the lenient approach and Finoula advocating a more punitive management style. By the time the referral was made, relationships between Noel and his parents had deteriorated to an all-time low.



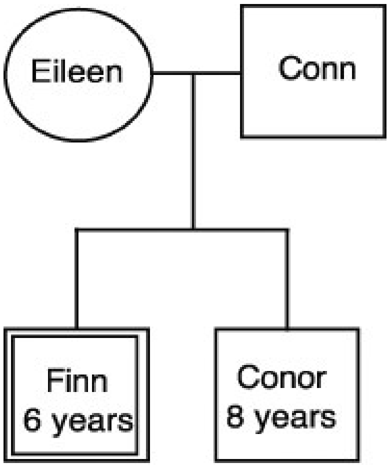
Besides the enuresis, Noel's developmental history was essentially normal. His academic performance was excellent and he had no psychosocial adjustment problems other than those that arose between himself and his parents as a consequence of his enuresis. He took great care to wash thoroughly each morning and so did not have an odour of urine which might give his peers reason to mock or bully him at school.

Noel was the youngest and only boy in a family with five children. His four sisters had no continence problems and were well adjusted. There was a family history of bedwetting on the father side. Noel's father, Fintan, and uncle, Rurai, wet their beds until they were in their teens.

Box 7.2 A case of encopresis

Finn, aged 6, developed good bowel control by the age of 4 but began soiling at 6. The soiling occurred at night and occasionally in school. It was the embarrassment and secondary peer problems that were evolving in response to his soiling in school that led to the referral.

Finn had suffered alternately from gastroenteritis and constipation during the 3 months prior to the onset of the encopresis. He had developed an anal fissure which became infected. Subsequently he avoided the bathroom because of an intense and growing fear that the fissure would recur. He developed chronic constipation, for which he was given laxatives. This led to overflow incontinence and strengthened his fear and avoidance of the toilet.



Finn has been soiling
for 2 years

Finn was one of two children, his brother being 2 years his senior. Both boys fitted in well at school before the encopresis occurred. The parents were both professionals, and had excellent relationships with the boys, but they were demoralized because they felt helpless when faced with Finn's problem.

In this chapter, after considering the classification, epidemiology and clinical features of elimination problems, a variety of theoretical explanations concerning their aetiology will be considered along with relevant empirical evidence. The assessment of enuresis and encopresis will then be outlined and an approach to the treatment of these problems will be given.

Diagnosis, clinical features and classification

Diagnostic criteria from ICD-10 (WHO, 1992) and DSM-5 (APA, 2013) for enuresis and encopresis are given in Table 7.1. Elimination problems constitute a heterogeneous group of disorders. Important distinctions may be made between different clinical presentations. First, both wetting and soiling may occur exclusively during the day, exclusively during the night, or at any time. Second, with primary enuresis and encopresis, incontinence has been present from birth, but with secondary enuresis or encopresis, there has been a period of bowel or bladder control of at least 6 months which has ceased, usually in response to life stresses. Third, with secondary enuresis and encopresis, a distinction may be made between cases where the wetting or soiling is intentional and those where it is unintentional. Fourth, elimination problems may occur alone or co-morbidly in cases characterized by both faecal and urinary incontinence. Fifth, elimination problems may occur as an uncomplicated one- or two-symptom presentation or as part of a wider set of adjustment problems, with co-morbid psychological problems, primarily related to a stressful psychosocial environment or as one aspect of a developmental disability or medical condition.

With nocturnal enuresis, distinctions are made between monosymptomatic and polysymptomatic presentations (Butler, 2008). With monosymptomatic nocturnal enuresis complete bladder voiding occurs soon after the child goes to sleep leaving a large wet patch. This presentation responds best to a urine alarm programme (with or without desmopressin). With poly-symptomatic nocturnal enuresis, there is daytime urgency, frequent daytime voiding (more than 7 times), voiding low volumes, variability in the size of the wet patch after night-time voiding, and waking during or after night-time wetting. This presentation responds to bladder training and anticholinergic medication.

Table 7.1 Diagnosis of elimination disorders

	DSM-5	*ICD-10*
Enuresis	A. Repeated voiding of urine into bed or clothes whether involuntary or intentional. B. The behaviour is clinically significant as manifested by either a frequency of twice a week for a least 3 consecutive months or the presence of clinically significant distress or impairment in social, academic (occupational), or other important areas of functioning.	Involuntary voiding of urine, by day and/or by night, which is abnormal in relation to the individual’s mental age and which is not a consequence of a lack of bladder control due to any neurological disorder, to epileptic attacks, or to any structural abnormality of the urinary tract. The enuresis may have been present from birth or it may have arisen following a period of acquired bladder control. The later onset variety usually begins at the age of 5 to 7 years. The enuresis may constitute a

	C. Chronological age is at least 5 years (or equivalent developmental level). D. The behaviour is not attributable to the physiological effects of a substance (e.g. a diuretic, an antipsychotic medication) or another medical condition (e.g., diabetes, spina bifida, a seizure disorder). (For specifiers, see DSM-5, p. 355.)	monosymptomatic condition or it may be associated with a more widespread emotional or behavioural disorder. Emotional problems may arise as a secondary consequence of the distress or stigma that results from enuresis. The enuresis may form part of some other psychiatric disorder or both the enuresis and the emotional/behavioural disturbance may arise in parallel from related etiological factors.
Encopresis	A. Repeated passage of faeces into inappropriate places (e.g., clothing or floor) whether involuntary or intentional. B. At least one such event occurs each month for at least 3 months. C. Chronological age is at least 4 years (or equivalent developmental level). D. The behaviour is not attributable to the physiological effects of a substance (e.g., laxatives) or another medical condition except through the mechanism of constipation. Not due to medication (e.g., laxatives), or a medical condition except through the mechanism of constipation. (For specifiers, see DSM-5, p. 358.)	Repeated voluntary or involuntary passage of faeces, usually of normal or near normal consistency in places not appropriate for that purpose in the individual's own sociocultural setting. There are three main etiological patterns. First, the condition may represent a lack of adequate toilet training, with the history being one of continuous failure ever to acquire adequate bowel control. Second, it may reflect a psychologically determined disorder in which there has been normal physiological control over defecation but, for some reason a reluctance, resistance, or failure to conform to social norms in defecation in acceptable places. Third, it may stem from physiological retention, involving impaction of faeces, with secondary overflow. Such retention may arise from parent–child battles over bowel training or from withholding faeces because of painful defecation as a consequence of an anal fissure or

	gastrointestinal problem. In some instances the encopresis may be accompanied by smearing of faeces over the body or over the external environment and there may be anal fingering and masturbation. In such instances it usually forms part of a wider emotional or behavioural disorder.

Note: DSM-5 diagnostic criteria are reprinted with permission from the *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition* (APA, 2013). Copyright © 2013 American Psychiatric Association. The material in the column headed ICD-10 is a summary of the clinical description and diagnostic guidelines for enuresis and encopresis. For the full official WHO clinical descriptions and diagnostic guidelines for these disorders see WHO, 1992, pp. 285–288.

Distinctions are made between different types of daytime wetting (Butler, 2008). With urge incontinence, which is due to bladder-detrusor instability, frequent voiding (more than 7 times per day) of small volumes occurs following the experience of a sudden urge to urinate. With voiding postponement, infrequent wetting (less than 5 times per day) occurs after postponing micturition. With Hinman syndrome, voiding is only possible with straining and there is an interrupted flow caused by detrusor-sphincter disco-ordination. This presentation is associated with occasional wetting and may respond to biofeedback. With stress incontinence, small volumes are voided during coughing or sneezing, and with giggle incontinence large volumes are voided during laughing.

With encopresis, soiling may occur either with or without constipation and overflow incontinence (Butler, 2008). When it occurs with constipation, usually painful defecation has led to toilet avoidance, which in turn has led to constipation and overflow. This type of encopresis is usually secondary, in that the child has had a period of bowel control of 6 months or more, and it may be accompanied by co-morbid enuresis. Treatment in these cases involves laxatives and behavioural toilet training. When encopresis occurs without constipation, it may be primary or secondary. In primary encopresis without constipation, the child has never developed bowel control. This may have occurred because of a neurological condition such as cerebral palsy or a developmental delay associated with intellectual disability. Treatment in these cases involves behavioural toilet training. In secondary encopresis without constipation, the child has experienced a period bowel control of 6 months or longer, and usually developed secondary encopresis in response to life stresses. In these cases children may also smear faeces. Treatment in these cases involves behavioural toilet training and addressing the stresses that precipitated the episode of encopresis.

Epidemiology

Elimination problems are very common in childhood (von Gontard, 2012a, 2012b).

Encopresis is not diagnosed until 4 years of age. The prevalence of encopresis is about 1–3%. Enuresis is not diagnosed until 5 years of age. The prevalence of enuresis is approximately 20% in 4 year olds, 10% in 7 year olds, 1–2% among in adolescents and 0.3–1.7% among adults. The gradual reduction in the prevalence of elimination disorders with increasing age is illustrated in Figure 7.1. Primary enuresis is more common than secondary enuresis. Secondary elimination problems most commonly occur between 5 and 8 years. Elimination problems are more common in boys than girls. The male–female ratio for elimination disorders is about 2:1.

There is considerable co-morbidity associated with elimination problems. Daytime incontinence occurs in approximately 20–35% of children with nocturnal enuresis. Other psychological disorders occur in 20–30% of children with nocturnal enuresis, 20–40% with daytime urinary incontinence, and 30–50% with encopresis (von Gontard et al., 2011). For nocturnal enuresis, externalizing disorders, notably attention deficit hyperactivity disorder (ADHD), are more common than internalizing disorders. Co-morbid disorders are more common in secondary than in primary enuresis. For encopresis, internalizing disorders (anxiety and depression) and externalizing disorders (ADHD and oppositional defiant disorder) are equally common.

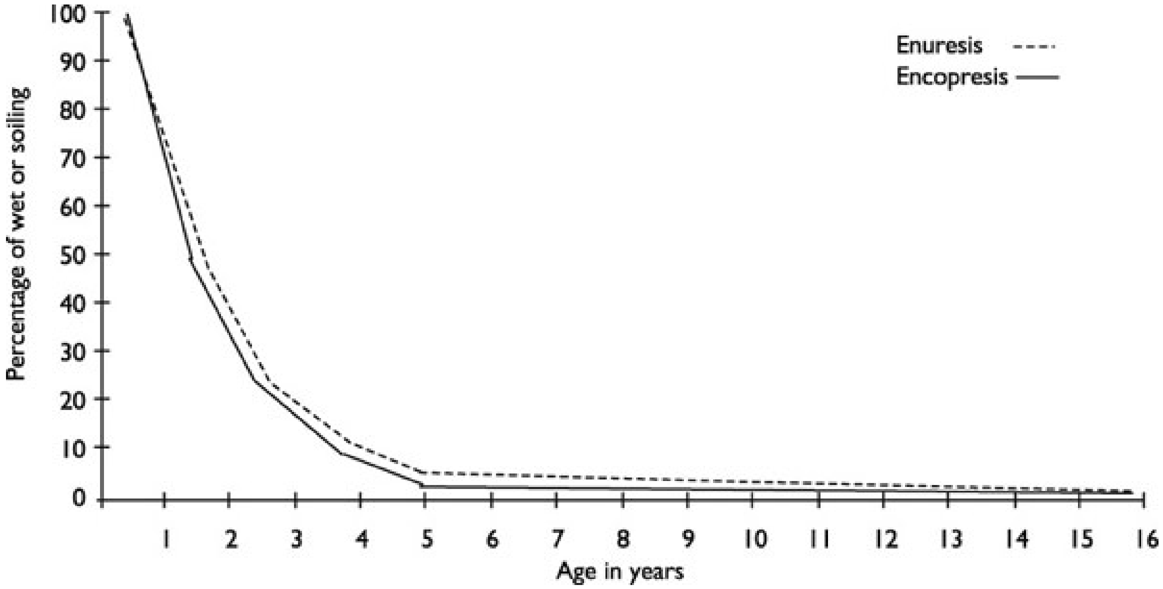


Figure 7.1 Prevalence of wetting and soiling from birth to adolescence

Note: Based on Buchanan (1992) and Houts et al. (1994).

For treated cases, motivation and adherence to behavioural treatment programme regimes are the best predictors of positive outcome (Buchanan, 1992; Kaplan & Busner, 1993). Children with ADHD tend to be less compliant with treatment of enuresis and to have a poorer outcome than those without ADHD (von Gontard, 2012a). The number of first-degree relatives with bedwetting problems is the single most accurate predictor of a poor prognosis for enuretics (Barclay & Houts, 1995). With encopresis a poor prognosis has been found in cases characterized by highly coercive or intrusive parent–child interaction (Kelly, 1996).

Aetiological theories

Aetiological theories of elimination problems fall into six categories: biological, developmental, psychopathological, psychodynamic, behavioural and family systems. The principal features of these theories and their treatment implications are given in Table 7.2.

Biological theories. Biological explanations of enuresis and encopresis point to the importance of genetic and constitutional factors in the aetiology of elimination problems. Findings concerning the role of biological factors in the aetiology of enuresis and biological treatments of enuresis have been reviewed by Butler (2008), von Gontard (2012a), and von Gontard and Neveus (2006). Approximately 70% of children with enuresis have a first-degree relative who has a history of bedwetting, suggesting the importance of genetic factors in enuresis. Compared with other variables assessing psychological adjustment or physical health, the single major predictor of the outcome for children with enuresis is the number of first-degree relatives having similar problems. Enuresis has also been found to be associated with urinary tract infections, urinary tract abnormalities, low functional bladder volume and constipation. While antibiotic treatment may relieve urinary tract infections, it has little impact on enuresis. Surgery to rectify urinary tract abnormalities is ineffective in alleviating enuresis. Treatment of constipation, however, may lead to a resolution of enuresis, and this is probably most effective in those cases where faecal impaction has reduced functional bladder capacity. Nocturnal enuresis is associated with reduced arousal response to bladder signals and an abnormal vasopressin circadian rhythm. Vasopressin decreases urine volume and increases its concentration. However, treatment of enuresis with desmopressin, a synthetic analogue of vasopressin, is effective in only a minority of cases and there is a high relapse rate when the child stops taking medication (von Gontard, 2012a). The observation that the antidepressant imipramine leads to immediate cessation of nocturnal enuresis and its withdrawal leads to an immediate relapse in most cases has informed hypotheses about abnormalities of the neuroamine system contributing to the aetiology of enuresis. Anticholinergic drugs such as oxybutynin chloride, belladonna, propantheline and terodiline delay the desire to void and increase functional bladder capacity. These may be useful in treatment of daytime enuresis and polysymptomatic nocturnal enuresis where there is daytime urgency and frequent daytime voiding of low volumes. However, anticholinergic drugs have unpleasant side effects such as dry mouth, blurred vision, dizziness, headache and nausea.

Table 7.2 Theories of elimination disorders

Table 7.2 Theories of elimination disorders

Theory	*Theoretical principles*	*Principles of treatment*
Biological	Elimination problems are due to genetic factors or to urinary or anorectal structural or functional abnormalities.	Medication or surgery to rectify abnormalities or training in how to cope with them.
Developmental	Elimination disorders are part of a specific or general developmental delay.	Reassurance and behavioural training.
Psychopathological	Elimination disorders are part of broader set of psychological problems. Psychopathology may cause elimination disorders. Psychopathology may arise from elimination disorders. Behaviour problems and elimination problems may both be an expression of underlying psychopathology.	Psychological treatment for both the elimination problem and the psychopathology.
Psychoanalytic	Elimination problems are an expression of unconscious conflicts associated with neglectful or coercive parental toilet training during the anal stage of development.	Psychodynamic play therapy to help resolve conflicts underpinning elimination problems.
Behavioural	Lack of positive reinforcement for appropriate toileting or the association of toileting with pain or other aversive experiences prevents the development or maintenance of appropriate toileting habits.	Behavioural programme to learn appropriate toileting habits.
Family systems	Primary elimination problems may be due to living in a chaotic family environment. Secondary elimination problems may arise from acute stressful life events and family lifecycle transitions. Elimination problems may be maintained by coercive, intrusive or triangulating interaction patterns with parents or caregivers.	Family therapy to alter interaction patterns that maintain the elimination problems.

The role of biological factors in the aetiology of encopresis has been reviewed by Buchanan (1992), Butler (2008), Campbell et al. (2009) and von Gontard (2012b). Encopresis, especially encopresis with constipation and overflow, is associated with a genetic vulnerability to constipation. Abnormalities in anorectal sensory and motor function, the presence of a megacolon, Hirschsprung's disease, spina bifida and cerebral palsy may all lead to encopresis. Where there are abnormalities of anorectal sensory functioning, the child is unaware of the need for defecation and so fails to develop adequate control of the sphincter to prevent soiling, whereas with poor anorectal motor functioning the child is aware of the need to control the sphincter but is unable to. In some instances this may be due to internal sphincter hypertrophy. In Hirschsprung's disease, inadequate innervation of the intestines (which is diagnosed by biopsy) prevents the motility of faeces through the intestines. This leads to chronic constipation and in some cases overflow incontinence. About 10% of referrals with chronic constipation have Hirschsprung's disease. In spina bifida, typically there are severe abnormalities of the sensory and motor nerves to the legs, bowel and bladder. In cerebral palsy, impairment of the motor nerves of the central nervous system may prevent the development of adequate bladder and bowel control in some cases.

Developmental theories. Developmental hypotheses about the aetiology of elimination disorders view enuresis and encopresis as part of a delay in reaching normal developmental milestones (Butler, 2008; Campbell et al., 2009; Christophersen & Frimen, 2010; Houts, 2010; Mellon, 2012; von Gontard, 2012a, 2012b, 2013; von Gontard & Neveus, 2006; Williams & Jackson, 2012). Elimination problems are more common among children with both specific developmental delays characterized by a failure to reach motor, speech and social milestones on time, and minor neurological abnormalities. They are also more common among children with general developmental delays characterized by low IQ and a diagnosis of intellectual disability, for example autism spectrum disorders. Encopresis is more common among children with low birth weight. There may also be a critical period for learning bladder control skills. Enuresis is more likely to develop in youngsters who do not begin toilet training until after 18 months.

Psychopathological hypotheses. Psychopathological hypotheses about the links between psychological adjustment and elimination problems fall into three categories. The first hypothesis is that an underlying psychopathology leads to the development of elimination problems. The second hypothesis is that the elimination problems (and the response of others to these difficulties) place stress on the child and this leads to the development of psychological problems. The third hypothesis is that some underlying psychopathology gives rise to a range of behavioural difficulties of which elimination problems are one subset. Twenty to fifty per cent of children with elimination problems have other psychological disorders (von Gontard et al., 2011). Externalizing disorders are more common among children with enuresis, especially secondary enuresis. For encopresis, internalizing and externalizing disorders are equally common. Successful symptomatic treatment of elimination problems leads to improvement, but not resolution, of other psychological problems. Thus for a majority of children with elimination disorders, it is probably the case that the elimination problems are only partially responsible for the other observed psychological difficulties.

Psychodynamic theories. In psychodynamic theories wetting and soiling are explained as expressions of unconscious intrapsychic conflicts which have their roots in non-optimal parent–child relationships during the anal period of psychosexual development. Specifically, the parent may have been overly lax and negligent or overly coercive and controlling during the stage of development when toilet training is a central concern (e.g. Anthony, 1957). Negligence on the parents' part, according to this theory, may lead to suppressed aggression which finds expression in elimination problems. Coercive control on the parents' part may lead to anxiety about soiling and subsequent constipation with overflow soiling. Individual psychotherapy, play therapy or art therapy which aims to permit the child to express and resolve the conflicted feelings which underpin the elimination problems are the principal treatments to have arisen from the psychodynamic tradition. Outcome studies of such therapy have shown that it is rarely effective in helping youngsters develop bowel and bladder control (Kaplan & Busner, 1993; Williams & Jackson, 2012). However, case reports suggest that psychodynamically oriented play and art therapy may be useful to help youngsters increase their self-esteem and self-efficacy beliefs where these have diminished due to the negative response of family, peers and teachers to the elimination problems (Goodman, 2013; Kelly, 1996).

Behavioural theories. Behavioural theories have highlighted the role of inappropriate reinforcement schedules in the development of primary enuresis and encopresis and avoidance conditioning in the aetiology of secondary encopresis (e.g. Buchanan, 1992; Houts, 2010; von Gontard & Neveus, 2006). With primary enuresis and encopresis, bladder filling or rectal distension and sphincter relaxation have not become discriminative stimuli for appropriate toileting habits. Furthermore, when appropriate toileting behaviours have occurred they have not been adequately reinforced. With secondary encopresis, pain or other aversive events may have led to avoidance of the toilet and the consequent development of constipation and overflow incontinence. In addition, parental attention following soiling or wetting may inadvertently reinforce such elimination problems. There is also the possibility that unsuccessful attempts to resolve elimination problems and the negative physical and psychosocial consequences of enuresis and encopresis may lead to the development of learned helplessness and low self-efficacy beliefs. According to behavioural explanations of enuresis and encopresis, treatment should focus on sensitizing children to bodily sensations that precede urination and defecation so that these become effective discriminative stimuli. Where avoidance behaviours have developed desensitization to toileting situations should be arranged. Finally, successive approximations to appropriate toileting behaviour should be reinforced so that normal toileting habits are learned. Treatment for both enuresis and encopresis based on these principles have been shown in many outcome studies to be remarkably effective and are described in detail shortly (Buchanan, 1992; Houts, 2010; Mellon, 2012; von Gontard & Neveus, 2006; Williams & Jackson, 2012).

Family systems theories. Family systems theories of elimination problems have focused on the roles of patterns of family interaction in the maintenance of elimination problems (Kelly, 1996; White, 1984). When elimination problems develop, children may become triangulated into stressful patterns of interaction with their parents or caregivers. Within such patterns one parent interacts with the child in an over-protective intrusive manner while the other adopts a critical and distant position with respect to the child. Parental disagreements about how to manage the elimination problems are not openly addressed but are detoured through the child. For the child to recover, the family must be helped to replace these problem-maintaining behaviour patterns with alternative ways of managing the elimination difficulties that involves greater parental co-operation. Parental involvement is central to the effective treatment of children with elimination problems (Buchanan, 1992; Houts, 2010; Mellon, 2012; von Gontard & Neveus, 2006; Williams & Jackson, 2012).

A number of acute and chronic family stresses have been found to be associated with enuresis and encopresis (Buchanan, 1992; Butler, 2008; Campbell et al., 2009; Houts, 2010). Stressful life events such as birth of a sibling, parental separation, disruptions of parental care, placement in institutional care, head injury, physical or sexual abuse, and exposure to a natural disaster may all precipitate the onset of secondary enuresis and in some instances encopresis. Enuresis and encopresis are more common among children exposed to chronic stresses associated with a chaotic family environment such as marital discord, parental adjustment problems (including criminality, chronic illness and chronic psychological problems), financial difficulties and crowding. Taken together, these findings suggest that a chaotic family environment may predispose youngsters to have elimination problems, probably because the routines required for developing bowel and bladder control skills are not provided. These results also suggest that exposure to an acute family stress may disrupt well-established toileting habits.

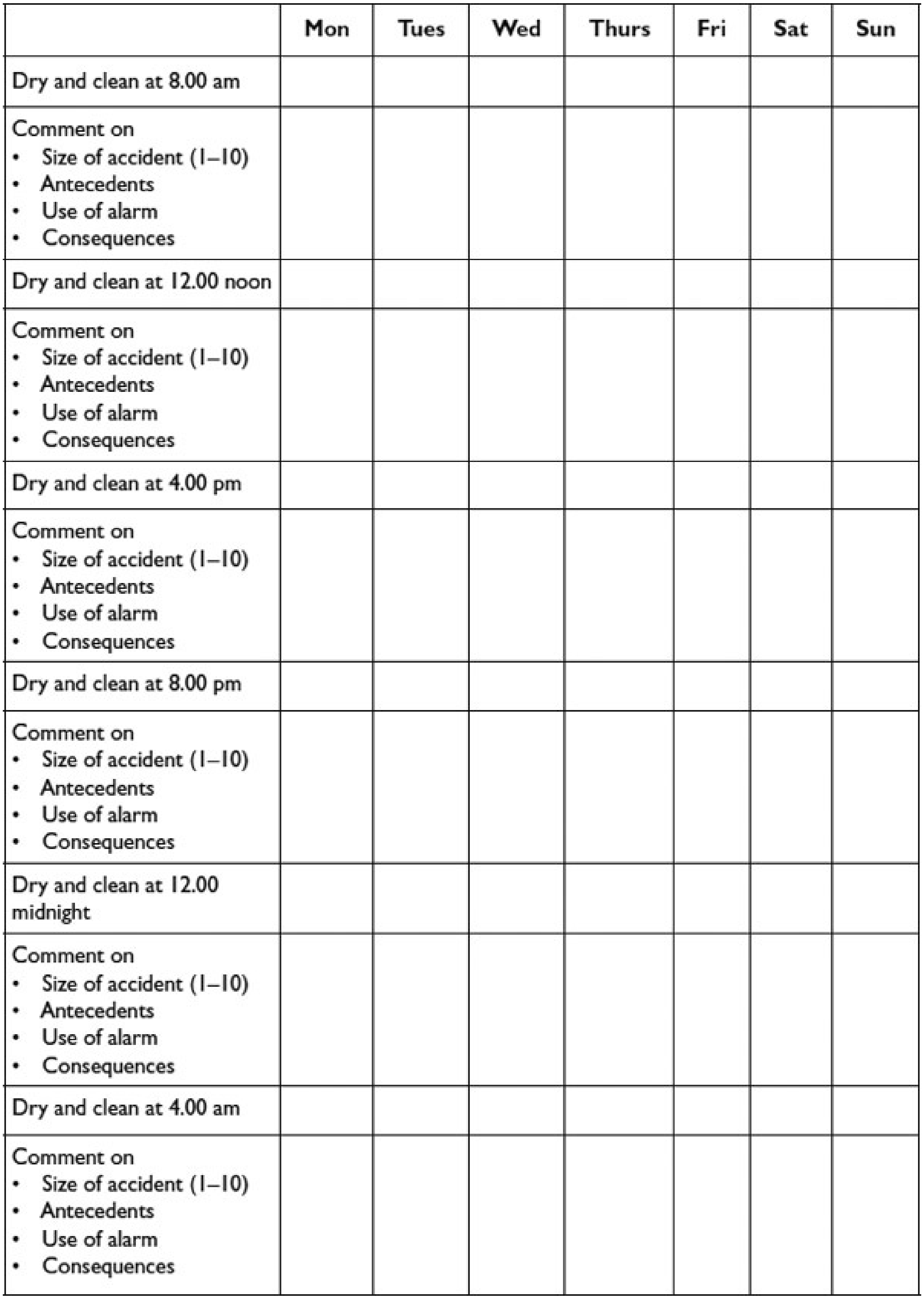
Assessment

In assessing elimination problems it is important to clarify the following issues:

- whether the elimination problems include enuresis only, encopresis only or both
- whether the problems are diurnal, nocturnal or both
- whether the incontinence is primary and has been present since birth or is secondary

and has developed following a period of continence
- whether secondary incontinence is intentional or unintentional
- whether encopresis occurs with or without constipation and overflow incontinence
- when nocturnal enuresis occurs, whether it is monosymptomatic or polysymptomatic with daytime urgency and frequent daytime voiding (more than 7 times) of low volumes
- when diurnal enuresis occurs, whether it is due to urge incontinence, postponement, dysfunctional voiding, coughing, sneezing or giggling
- whether there are co-morbid internalizing problems such as anxiety or depression or externalizing problems such as ADHD or oppositional defiant disorder
- whether the incontinence is a feature of a wider set of adjustment problems associated with a chaotic, stressful or abusive environment
- whether the incontinence is a feature of a developmental disability or medical condition
- a detailed description of previous psychological and pharmacological interventions, adherence to these and the response of the child to past treatment.

It is good practice to arrange for a thorough paediatric medical examination to check abnormalities of the urethra, urinary tract infections, constipation, gastrointestinal illness, megacolon, Hirschsprung’s disease and so forth. Over the course of the first few sessions, the pattern of soiling and wetting may be tracked by inviting parents to monitor toileting using the chart presented in Figure 7.2. This chart can be helpful later for goal setting. Data collected during assessment may be used as a baseline against which to evaluate progress in treatment. Diet, fluids, exercise and laxative use may be monitored during assessment using the chart set out in Figure 7.3. This chart may also be used during treatment to monitor adherence to healthy eating and exercising routines. Parental attitudes towards their child’s enuresis may be assessed with the Parental Tolerance and Nuisance Scales (Morgan & Young, 1975). Parents who have particularly negative attitudes as assessed by these questionnaires are more likely to drop out of treatment, so focusing on modifying parental attitudes may be particularly important in those cases.

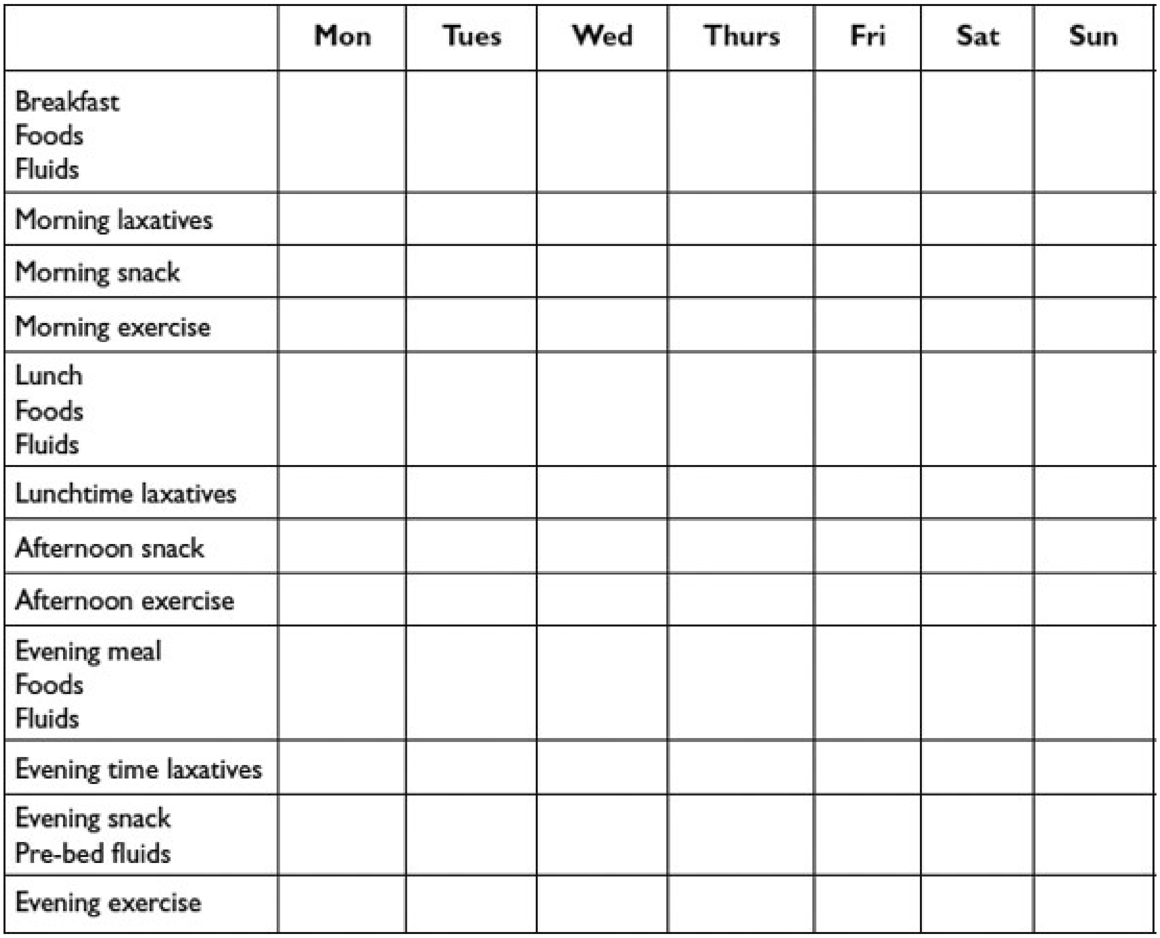


	Mon	Tues	Wed	Thurs	Fri	Sat	Sun
Dry and clean at 8.00 am							
Comment on • Size of accident (1–10) • Antecedents • Use of alarm • Consequences							
Dry and clean at 12.00 noon							
Comment on • Size of accident (1–10) • Antecedents • Use of alarm • Consequences							
Dry and clean at 4.00 pm							
Comment on • Size of accident (1–10) • Antecedents • Use of alarm • Consequences							
Dry and clean at 8.00 pm							
Comment on • Size of accident (1–10) • Antecedents • Use of alarm • Consequences							
Dry and clean at 12.00 midnight							
Comment on • Size of accident (1–10) • Antecedents • Use of alarm • Consequences							
Dry and clean at 4.00 am							
Comment on • Size of accident (1–10) • Antecedents • Use of alarm • Consequences							

Figure 7.2 Parent recording chart for monitoring changes in soiling and/or wetting

Along with the areas addressed in a routine preliminary evaluation (described in Chapter 4), the features set out in Figures 7.4 and 7.5 should be covered in a preliminary interview with cases where elimination problems are the central concern.

Predisposing factors for enuresis. From Figure 7.4 it may be seen that genetic vulnerability, urinary tract abnormalities, low functional bladder volume and the possibility of abnormal vasopressin circadian rhythms may all be considered when identifying possible biological predisposing factors in cases of enuresis. Psychosocial predisposing factors include the presence of a developmental delay, failure to start toilet training before the critical age of 18 months and residing in a chaotic family environment.



	Mon	Tues	Wed	Thurs	Fri	Sat	Sun
Breakfast Foods Fluids							
Morning laxatives							
Morning snack							
Morning exercise							
Lunch Foods Fluids							
Lunchtime laxatives							
Afternoon snack							
Afternoon exercise							
Evening meal Foods Fluids							
Evening time laxatives							
Evening snack Pre-bed fluids							
Evening exercise							

Figure 7.3 Parent recording chart for monitoring diet, fluids, exercise and laxative use

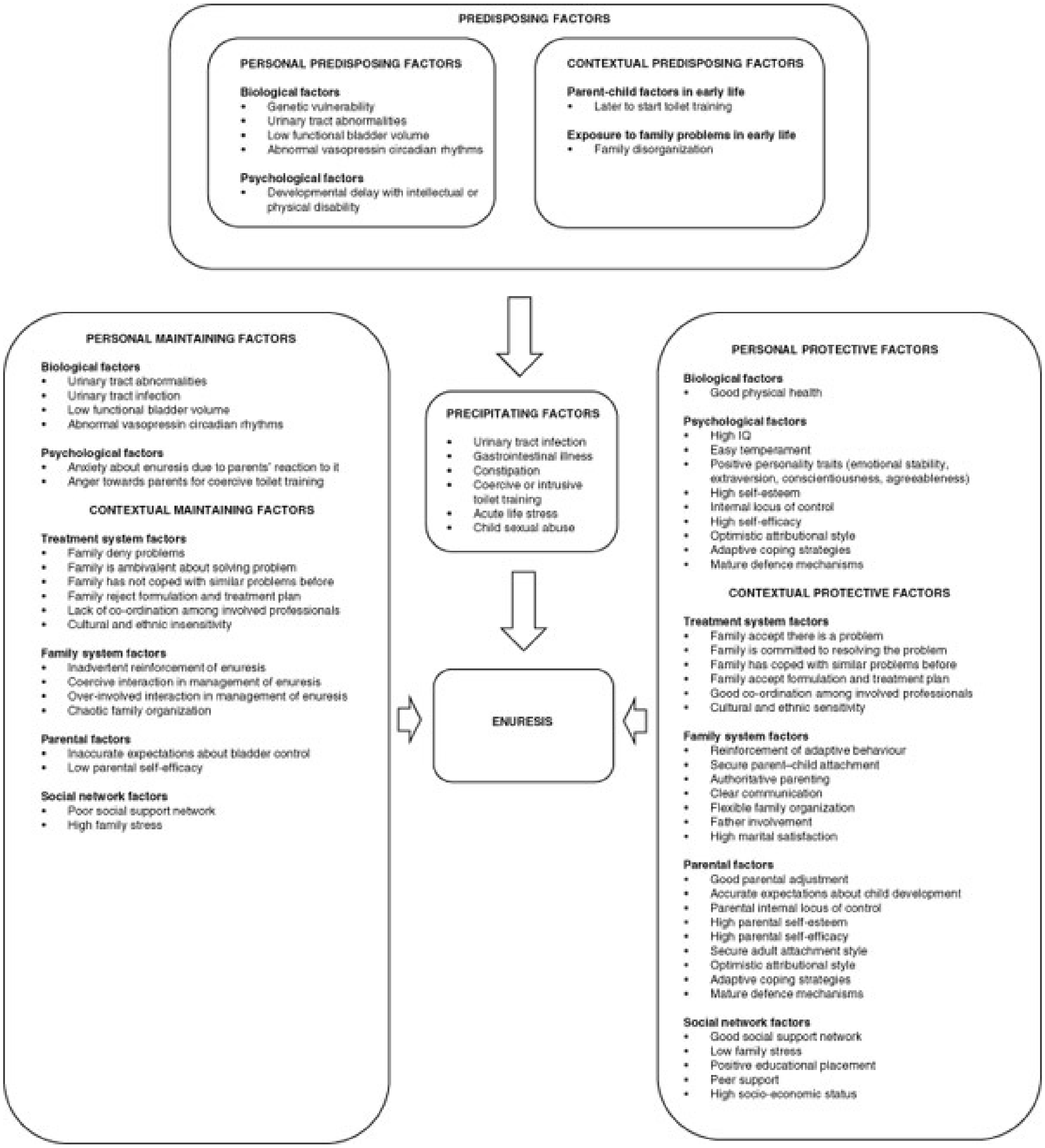


Figure 7.4 Factors to consider in enuresis

Precipitating factors for enuresis. While primary enuresis is present from birth, secondary enuresis may be precipitated by biological factors such as a urinary tract infection, gastrointestinal illness or constipation. Psychosocial precipitating factors include coercive or intrusive toilet training, or stressful life events including sexual abuse, although this may lead to enuresis indirectly by precipitating a urinary tract infection.

Maintaining factors for enuresis. Enuresis may be maintained by children's learned helplessness and low self-efficacy beliefs that the situation cannot be changed by them. It may also be maintained in some instances by negative affectivity, specifically anger associated with coercive parent–child interaction or anxiety associated with intrusive interaction relating to urination. Biological factors may also be involved in the maintenance of enuresis and these include urinary tract infections and abnormalities, low functional bladder volume and abnormal vasopressin circadian rhythms. Possible contextual maintaining factors for enuresis include inaccurate parental expectations about the development of bladder control, inadvertent parental reinforcement of children's toileting problems, coercive or over-involved parental management of child's enuresis, family disorganization, difficulty engaging with the treatment system, high stress and low social support.

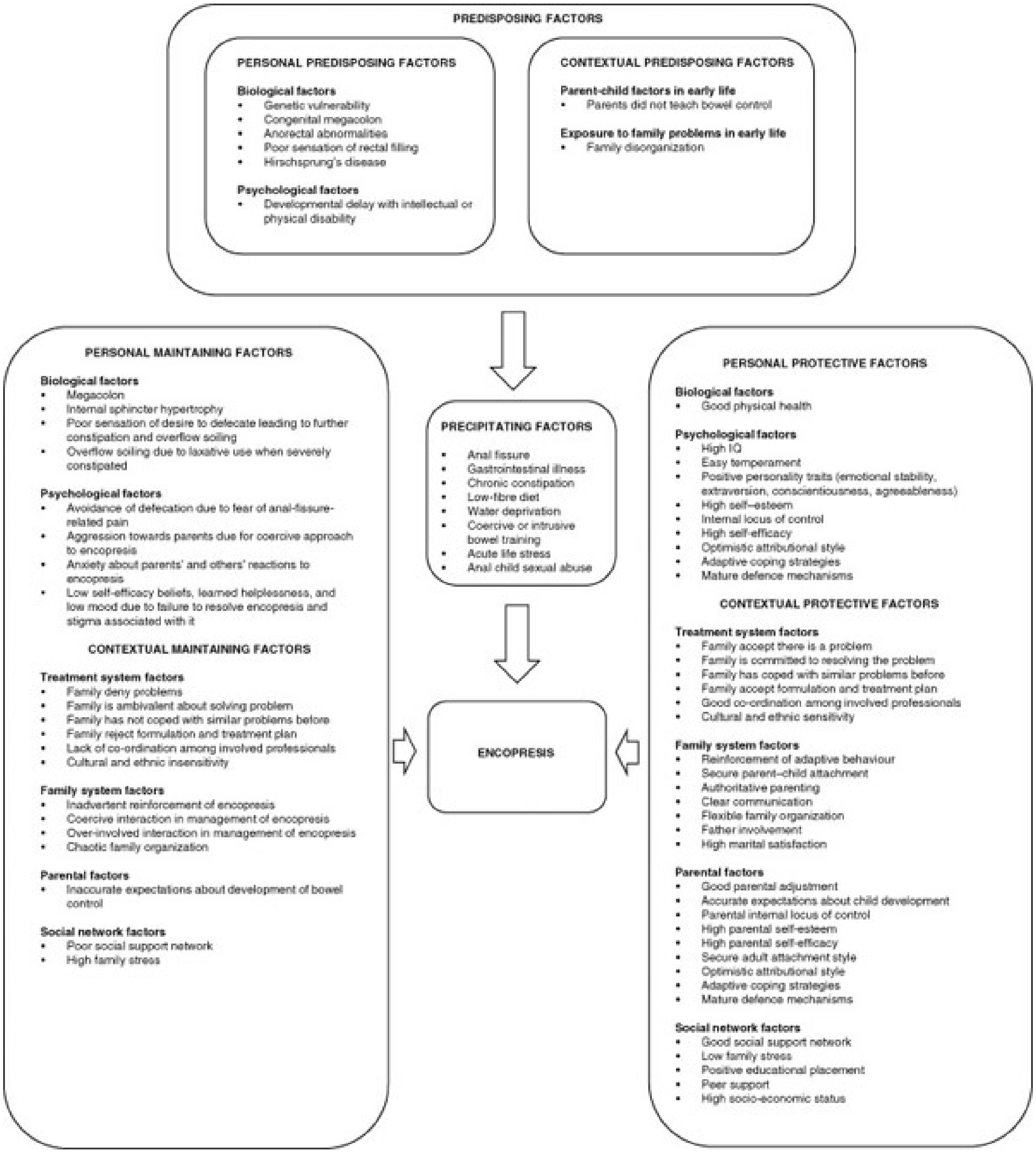


Figure 7.5 Factors to consider in encopresis

Protective factors for enuresis. The probability that an enuresis treatment programme will be effective is influenced by a variety of protective factors associated with the child and the family. It is important that these be assessed and included in the formulation, since it is protective factors that usually serve as the foundation for therapeutic change. A wish to resolve the toileting problem, an ability to co-operate with the treatment team, positive child and parent adjustment, and good overall marital and family functioning are the main protective factors to consider in cases of enuresis.

Predisposing factors in encopresis. From Figure 7.5 it may be seen that for encopresis genetic vulnerability, a congenital megacolon, anorectal abnormalities including limited sensations for rectal filling and Hirschsprung's disease are the principal biological predisposing factors deserving consideration in a clinical assessment. Important psychosocial predisposing factors include the presence of a developmental delay and residing in a disorganized family environment in which parents did not teach the child bowel control.

Precipitating factors in encopresis. While primary encopresis may be present from birth, secondary encopresis may be precipitated by biological factors such as dietary changes which give rise to chronic constipation. Such changes include water deprivation and a low level of fibre. Gastrointestinal illness or an anal fissure may also precipitate overflow incontinence by a process of avoidance conditioning. Psychosocial precipitating factors include coercive or intrusive toilet training, or stressful life events including anal sexual abuse, although this may lead to encopresis indirectly by causing an anal fissure which in turn leads to avoidance of defecation, constipation and overflow incontinence.

Maintaining factors in encopresis. Encopresis may be maintained by avoidance of defecation and subsequent chronic constipation, poor sensation of rectal filling, and overflow soiling possibly associated with occasional laxative use. Encopresis may also be maintained by children's learned helplessness and low self-efficacy beliefs about their ability to resolve their encopresis. The soiling may also be maintained, in some instances, by negative affectivity, specifically anger associated with coercive parent–child interaction or anxiety associated with intrusive interaction relating to defecation. Biological factors such as the presence of a megacolon or internal sphincter hypertrophy may also maintain encopresis. Possible contextual maintaining factors include inaccurate parental expectations about the development of bowel control, inadvertent parental reinforcement of children's toileting problems, coercive or over-involved parental management of child's encopresis, family disorganization, difficulty engaging with the treatment system, high stress and low social support.

Protective factors deserving assessment in cases of encopresis are similar to those listed for enuresis.

Formulation

Salient features from evaluation interviews and home-monitoring exercises may be integrated into a formulation. Where it is clear that the presentation is monosymptomatic, the discrete programmes for enuresis and encopresis described shortly are appropriate. In cases where the elimination problem is part of a wider set of adjustment difficulties and problems in the child's social network, treatment should address both the elimination problems and the child's other difficulties. For example, if a child presents with enuresis secondary to a urinary tract infection and overflow encopresis secondary to an anal fissure, and both of these problems are in turn secondary to chronic sexual abuse, a management programme which addresses the child protection issues (such as that described in Chapter 21) and a medical and psychological treatment programme for the elimination problems may be the most appropriate intervention. If a child with encopresis is being bullied at school and this bullying occurs in the school toilets, school-based intervention to deal with the bullying may be required and additional treatment of the encopresis may be necessary, particularly if constipation has developed.

In most instances elimination problems can be treated on an outpatient basis. However, where there have been repeated treatment failures, where there are serious medical complications, where an enema under sedation is required, and where the parents lack the psychological resources to implement a home-based programme hospitalization may be necessary.

Creating a facilitative family environment

To maximize the chances of learning bladder or bowel control habits, parents must work with the psychologist to create a facilitative environment within which the child can be treated. This is an environment in which parents send the child the message that (1) they love and respect the child; (2) they see the enuresis or encopresis as a problem which is non-intentional and experienced by the child as uncontrollable; and (3) they believe the child has great courage for coping with the elimination problems and has the ability to learn bladder or bowel control by jointly working with the parent and psychologist.

Parents may be coached to follow a number of simple guidelines which help create a facilitative environment. These include spending one period of 20 minutes a day engaged in supportive play following the guidelines set out in Table 4.4 in Chapter 4, reducing other demands and stresses on the child; avoiding criticism, scolding or punishment for lack of bladder or bowel control or the demands that the enuresis or encopresis programme places on parents and other family members; offering praise and encouragement for progress no matter how small the gains are; helping the child to keep a regular predictable routine for eating, sleeping and exercising; and ensuring that the technical aspects of the programme (such as the urine alarm, laxatives, reward charts and other specific elements described shortly) are all managed as directed by the psychologist.

Where one parent has become embroiled in a battle with the child over bowel and bladder control, it may be easier for all involved if this parent agrees to distance himself or herself from managing the problem and allow the less involved parent to take a more active role. In practice, this often means inviting the child's mother to distance herself from the management of the elimination problem and inviting the child's father to take a more central role.

For parents to be able to offer this type of facilitative environment for their child, they must be helped to understand the aetiology of their children's elimination problems and the factors that maintain them, and to let go of the idea that elimination problems are an expression of laziness, defiance, attention-seeking or an underlying pervasive psychological disorder. Some specific guidelines for educating parents about enuresis and encopresis are given later. In educating parents about the development of bowel and bladder control it is vital to point out that relapses are inevitable. This pre-empts relapse-related demoralization.

For children to be able to respond to this type of facilitating environment, they must be empowered to view the elimination problem as separate from their identity. White (1984) used the process of externalization to help children do this. He personifies the problem of encopresis by naming it *Sneaky-Poo* and then worked collaboratively with the child and the parents to help the child master this adversary. This process of externalization is particularly useful for helping the child who has developed low self-esteem to reconstruct a view of themselves as good and worthwhile, and the elimination problem as an external stress (a nuisance) with which they must cope with the help of their parents and the psychologist.

Specific treatment programmes that are particularly effective for the management of enuresis and encopresis and which have been well researched will be described next. The likelihood of these programmes being effective is enhanced if they are offered within the context of a facultative environment and as part of a broader multi-systemic package of interventions, in cases where the elimination problem is but one of a wider set of adjustment difficulties. Where children are referred with elimination problems that have failed to respond to the treatments described here, in some instances treatment failure may have arisen from inadequate comprehensive assessment and failure to create a facilitative environment within which to conduct treatment. It is important to highlight this crucial contextual difference when inviting parents and children to embark, once again, on a programme which they view as having been ineffective.

Treatment for enuresis

Where children have not previously been treated for nocturnal enuresis, give the following advice on fluid intake, diet, toileting and waking (NICE, 2010a). Children under 8 years should drink up to 1,400 mL of fluid per day to develop adequate bladder capacity to have a dry bed at night. They should eat a balanced diet. They should have the last drink of the day an hour before bedtime, avoid drinks with caffeine (for example Coke) before bed, urinate regularly, about 5–7 times per day, and always before bedtime. If parents wish to use reward systems or charts, advise that rewards are most effective when used for specific behaviours such as drinking appropriate amounts at appropriate times or using the toilet before going to sleep, rather than for having a dry bed. The uses of punishments or withdrawal of rewards is counterproductive. Waking the child to urinate at night is a short-term way to manage bedwetting, but will not promote long-term resolution of nocturnal enuresis. Where physical factors, such as urinary tract infections, are implicated in the aetiology of a case of enuresis, these should be treated before psychological intervention is attempted.

For primary and secondary monosymptomatic nocturnal enuresis, urine alarm–based programmes and desmopressin are effective treatments in most cases (AACAP, 2004; Butler, 2008; Neveus et al., 2010; NICE, 2010a; Vande Walle et al., 2012; Williams & Jackson, 2012). The effects of urine alarm–based programmes are usually relatively long-lasting, whereas relapses typically occur when desmopressin is discontinued. Best practice guidelines including those produced by NICE (2010a) recommend urine alarm programmes as a first-line treatment, and that desmopressin be used only if short-term dryness is a priority, if parents have difficulty coping with the demands of implementing a urine alarm programme, or where a multi-modal desmopressin and urine alarm programme is being implemented after a urine alarm programme has been ineffective.

From a psychological perspective, most cases of both primary and secondary, nocturnal and diurnal enuresis may be most effectively treated with programmes that have an enuresis alarm as their central component (Houts, 2010; Williams & Jackson, 2012). The nocturnal enuresis alarm is a device which includes a pad or mat which goes under the child’s sheet and a battery-powered alarm bell or buzzer. If the child wets the bed, the dampness of the sheet closes a circuit of wires in the pad and the alarm sounds. This leads the child to wake during urination. By a process of conditioning, after a number of trials, the child comes to associate the desire to void the bladder with the process of awakening. For diurnal enuresis, a mini-pad is placed in the underwear and a small vibrating alarm is discretely placed under the clothing in contact with the skin. If the child begins to urinate, the circuit in the pad is closed and the vibrating alarm alerts the child to the necessity to use the bathroom. By a process of conditioning, the desire to urinate comes to be associated with the wish to visit the bathroom.

Treatment with a routine enuresis alarm leads to improvement in 60–70% of cases (Houts, 2010). Treatment failures are due to using an alarm that is not loud enough to awake the child fully, not supervising children urinating in the bathroom following waking, and not persisting with the programme for long enough. Usually about 12–16 weeks of treatment is required. The average relapse rate for treatment with an enuresis alarm is about 40%. About two-thirds of these relapsers can be successfully re-treated. Demoralization following relapse may prevent parents from re-treating their children using the urine alarm following treatment. A variety of strategies have been incorporated into pad and bell programmes to decrease the relapse rate to around 20% (Houts, 2010; Williams & Jackson, 2012). These have included

- psychoeducation
- cleanliness training and reward systems

- rehearsal of toileting
- retention control training
- over-learning
- dry bed training.

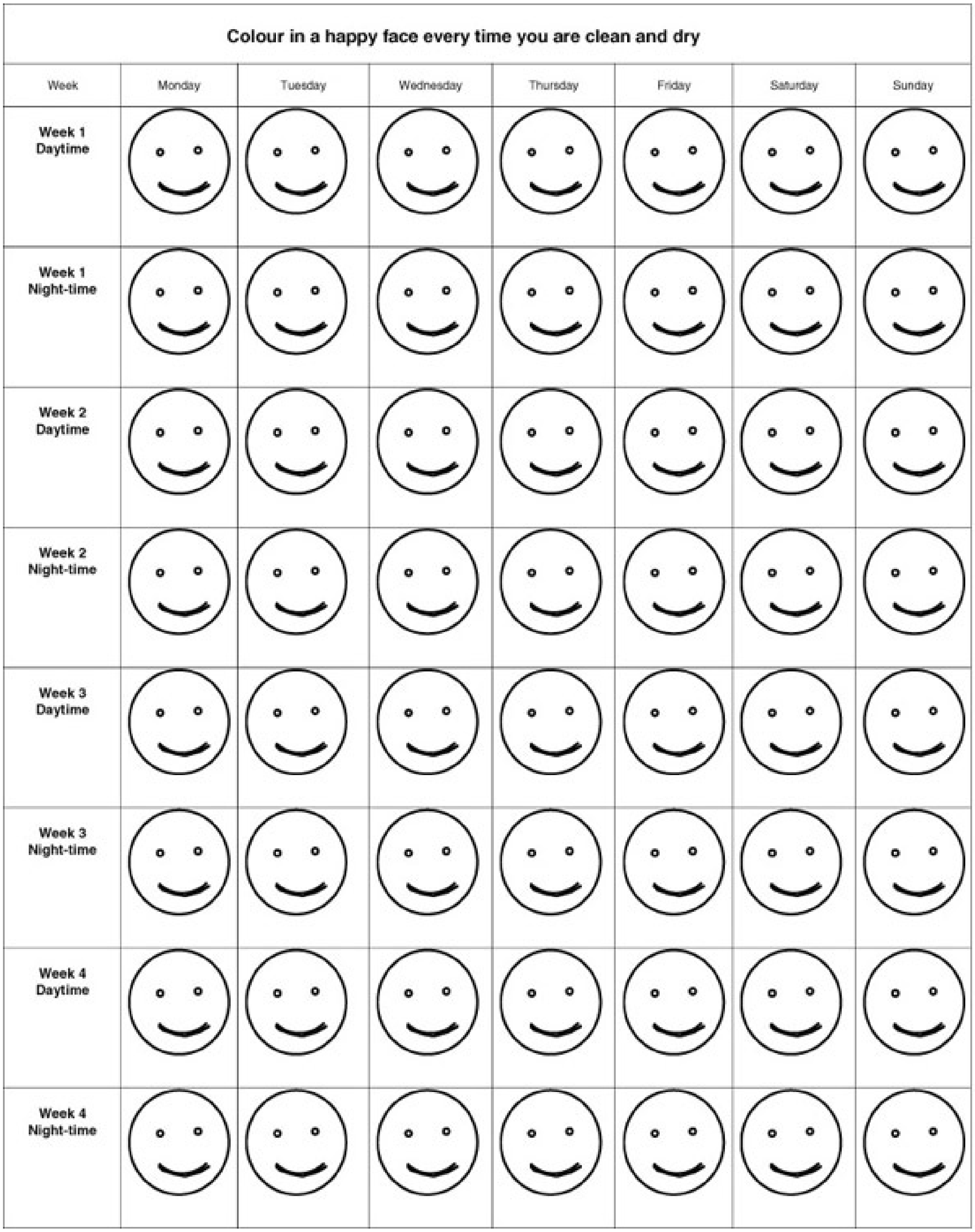
Psychoeducation. The central feature of psychoeducation is that the parents and child must be helped to view the enuresis as a developmental delay: a failure to learn a set of habits due to a delay in the development of the neural pathways that govern bladder control. Where the child presents with secondary enuresis, the idea that physical and psychological stresses can lead to setbacks in normal development that are outside of the child's control may be offered as an explanation for the child's condition. This way of viewing the development of bladder control also offers a rationale for explaining relapses to parents. Pointing out that relapses are inevitable is important, since it pre-empts relapse-related demoralization.

Cleanliness training and reward systems. Cleanliness training aims to increase the probability that children will avoid bedwetting by reinforcing bladder control and requiring children to take responsibility for managing the consequences of wetting their beds. With cleanliness training, children are required to change their sheets and pyjamas following each episode of wetting. A reward chart, such as that presented in Figure 7.6, is used and children colour in smiling faces for every dry night. (These types of reward systems are not recommended in NICE (2010a) guidelines for enuresis. Rather it is advised that rewards be given for specific behaviours such as using the toilet before bed.)

Rehearsal. With rehearsal of toileting, an hour before retiring the child lies on the bed, counts to 50, walks to the toilet, attempts to urinate and returns to bed. This routine is conducted on the first night of treatment and throughout treatment after each episode of wetting, once the sheets have been changed. It helps the child to develop the habit of visiting the bathroom and urinating.

Retention control training. Retention control training aims to help children increase functional bladder capacity while awake, and this in turn is expected to reduce the probability of bedwetting. With retention control training, at a pre-set time each day the child is given fluid to drink and asked to tell the parent when they wish to urinate. At this point they are asked to delay urination for 3 minutes, the next time for 6 minutes and so on until they can delay for 45 minutes. For a successful delay the child is given a reward.

Over-learning. Over-learning aims to help children increase functional bladder capacity while asleep. With over-learning, after 14 consecutive dry nights the child is given 4 ounces of water to drink 15 minutes before bedtime each night. If the child remains dry for 2 nights, this amount is increased to 6 ounces. If the child remains dry for 2 more consecutive nights the amount is increased to 8 ounces and so on until the child consumes the number of ounces obtained by adding 2 to his or her age in years. So a 6 year old would be required to drink 8 ounces, which is the average normal bladder capacity for a 6 year old. If a wet bed occurs, the amount of water consumed is reduced by 2 ounces, and then the child gradually increases the amount taken each night by 2 ounces once 2 consecutive dry nights are achieved. This over-learning procedure stops when 14 consecutive dry nights are recorded.



Colour in a happy face every time you are clean and dry

Week	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Week 1 Daytime	☺	☺	☺	☺	☺	☺	☺
Week 1 Night-time	☺	☺	☺	☺	☺	☺	☺
Week 2 Daytime	☺	☺	☺	☺	☺	☺	☺
Week 2 Night-time	☺	☺	☺	☺	☺	☺	☺
Week 3 Daytime	☺	☺	☺	☺	☺	☺	☺
Week 3 Night-time	☺	☺	☺	☺	☺	☺	☺
Week 4 Daytime	☺	☺	☺	☺	☺	☺	☺
Week 4 Night-time	☺	☺	☺	☺	☺	☺	☺

Figure 7.6 Child's star chart for enuresis and encopresis

Education, cleanliness training and using reward systems, retention control training, and over-learning have all been incorporated in a very effective urine alarm programme which is described in *Bedwetting: A Guide for Parents and Children* (Houts & Liebert, 1984). This programme is called *Full Spectrum Home Training*.

Dry bed training. Dry bed training aims to condense many trials of rehearsal, retention and control training, awakening to the enuresis alarm and cleanliness training into a very brief period of time (Azrin et al., 1974). With dry bed training, an intensive programme of training occurs on the first night. This begins with 20 trials of rehearsal of toileting. Following this, the child drinks fluids and sleeps with the pad and bell situated so that a parent or professional (if the treatment is conducted under professional supervision) can awake when the child wets the bed. The parent or professional wakes the child on the hour every hour. The child is taken to the bathroom and asked if he or she can refrain from urinating for 1 more hour. If so, the child refrains from urinating. If not, the child urinates. In either case, the child is given fluids to drink and returns to bed. If the child can refrain from urinating, they return to bed. If the child wets the bed, the parent or professional awakened by the alarm supervises the child changing sheets and pyjamas, and 20 trials of rehearsal of toileting before returning to sleep. Following this night of intensive training, on subsequent nights the child is only woken once per night and no additional fluids are given. On the second night the parents wake the child after 2 hours and ask him or her to urinate. On the third night this waking occurs at 2.5 hours. Each night the waking time is advanced by 30 minutes if and only if the bed is dry. If the child wets twice in 1 week the schedule is restarted. There is good evidence to support the effectiveness of dry bed training (Williams & Jackson, 2012). However, the use of this approach is not recommended in NICE (2010a) guidelines on the treatment of nocturnal enuresis because it includes punitive elements.

Typically treatment for nocturnal enuresis spans 12 weeks for children who wet once per night and up to 16 weeks for those who wet more than once per night (Houts, 2010). Parents either alone or with their children usually attend a series of 10 training and monitoring sessions with sessions being spaced further apart as treatment progresses. However, in a proportion of cases less intensive contact may lead to good results, provided adequate support materials are provided. Hunt and Adams (1989) showed that parents given well-designed home treatment manuals and a demonstration video pack required less than 2.5 hours of professional input, and their children made gains comparable to those of more intensive behavioural programmes.

Treatment of polysymptomatic nocturnal enuresis. For polysymptomatic nocturnal enuresis, characterized by daytime urgency, frequent daytime voiding (more than 7 times), voiding low volumes, variability in the size of the wet patch after night-time voiding and waking during or after night-time wetting, Butler (2008) recommends bladder training and oxybutynin, an anticholinergic medication. Bladder training aims to help children develop voluntary control over voiding. Children are asked to drink fluids up to 7 times a day, void at pre-set times, and void immediately if they experience urgency. Oxybutynin, an anticholinergic medication, is a smooth muscle relaxant which targets the detrusor muscles. It reduces bladder over-activity and increases functional bladder capacity.

Treatment of encopresis

Reviews of treatment outcome studies show that multi-modal paediatric and psychological treatment programmes can lead to recovery for up to 77% of children (Buchanan, 1992; Butler, 2008; Mellon, 2012, von Gontard, 2012b). Treatment should be tailored to target significant predisposing or maintaining factors identified in the formulation. The main components of effective treatment programmes are

- psychoeducation
- clearing the faecal mass (where there is overflow incontinence)
- bowel retraining.

Psychoeducation. With psychoeducation parents and children must be helped to view the encopresis as a developmental delay or an understandable physical problem. This process is more complex for encopresis than for enuresis since a variety of mechanisms contribute to the problem. First, children may soil if there has been a developmental delay in the maturation of the neural pathways that govern bowel control. These neural pathways may be likened to *telephone lines* for explanatory purposes and it may be explained that some children soil because they are not getting the message that they need to defecate. Such neural problems may occur as a result of a specific medical condition, a specific developmental delay, or as part of a more general developmental delay. Second, if a child has a large rectum it can hold many stools, and when this occurs the rectum grows larger and develops strong walls. The strong walls do not relax easily. This leads to the gradual development of a hard faecal mass. For explanatory purposes, this may be likened to a *traffic jam*. Third, if laxatives are given to treat such chronic constipation, some loosening of the edges of the faecal mass may occur, and this may seep out through the anus unnoticed because the anus may have become insensitive to sensations arising from soft stools, due to the prolonged presence of the large faecal mass. This is overflow incontinence. Fourth, when eventually some large hard faeces are passed, considerable pain may be experienced and in the worst cases an anal fissure develops. This leads to avoidance of defecation, since defecation precipitates immediate and intense pain. Often this avoidance of defecation is experienced as involuntary. Thus, children who are frightened to defecate but have sufficient courage to attempt to do so find that such attempts are futile because the twinges of pain lead to the sphincter contracting. Involuntary inhibition of defecation may also occur secondary to a gastrointestinal illness. Fifth, the stress of chronic constipation, anal discomfort and soiling may lead children and their parents to be bad tempered, to misunderstand each other and to argue about toileting and other issues. The anxiety and anger associated with such conflicts may lead to some loosening of stools and this may seep out around the edge of the faecal mass resulting in further soiling. Sixth, the situation may be made worse if the child eats a low-fibre diet and does not exercise regularly. Often these dietary and exercise problems occur after the child has developed chronic constipation. Constipated children rarely feel like eating high-fibre food or engaging in vigorous exercise.

Not all of these mechanisms operate in all cases of encopresis. However, offering this type of explanation to parents and children and identifying those processes that are operating in their particular case may help parents develop sufficient understanding to offer a facilitative environment for the treatment of encopresis. Clayden and Agnarsson's Information Booklet for Children and Parents (which is reproduced in Buchanan, 1992) offers a simple account of the processes that contribute to encopresis described earlier.

In the light of this type of explanation of encopresis, the parent and child may be informed that the most effective treatment is to remove the faecal mass (if one is present) and to use a set of routines to train the child's bowel to work regularly and effectively.

Clearing the faecal mass. Where faecal impaction has occurred, clinical psychologists should make a GP or paediatric referral to assess faecal impaction and arrange for this to be cleared. NICE (2010b) guidelines for managing idiopathic constipation describe best practice for assessing and clearing faecal impaction. This involves initial oral use of the laxative polyethylene glycol 3350 with electrolytes. If this does not lead to disimpaction, stimulant or osmotic laxatives may be used. Only if these measures fail should rectal medications or sodium citrate enemas be used. Phosphate enemas are the next level of intervention and manual evacuation of the bowel under anaesthesia may be used where all oral and rectal medications have been ineffective. Following disimpaction, maintenance therapy may be instituted, with polyethylene glycol 3350 with electrolytes as the first-line treatment and stimulant laxatives if this is ineffective. Maintenance therapy should be continued for several weeks (or longer if required) until behavioural toilet training has occurred, and thereafter should be reduced gradually.

Bowel retraining. Once the faecal mass has been removed (in those cases where one was present) a bowel retraining programme may be followed. Routines for the following four areas should be included in such a programme:

- laxative use
- toileting
- accident management
- diet and exercise.

For all four areas, reward systems using adaptations of the chart presented in Figure 7.6 may be used.

With laxative use, the parents and child in conjunction with the paediatrician or family doctor and psychologist agree on a regular schedule for laxative use. With children prone to chronic constipation this is essential. The child may colour in a face on the reward chart each time the laxative is successfully taken and this may be accompanied by praise for taking the laxative and also for remembering that it was time to take the laxative if the child indicated that it was the appropriate time for medication.

With toileting, regular times for visiting the toilet and attempting to defecate need to be established. For example, there may be agreement that the child will attend the toilet after each morning and evening meal. A plan for parental supervision of this schedule should be agreed. Where children have developed a fear of visiting the toilet or defecation due to previous painful experiences associated with toileting (such as an anal fissure), a desensitization programme may be necessary, in which the child is trained to relax in the presence of increasingly anxiety-provoking stimuli, such as being outside the bathroom door, being in the bathroom, sitting on the toilet and straining to defecate and so forth. The principles of systematic desensitization are discussed in Chapter 12. Parents may be trained to supervise the implementation of such desensitization programmes.

For both regular toileting and for completing steps in a desensitization programme, a reward chart coupled with praise and encouragement may be used to reinforce appropriate toileting behaviour or successive approximations to proper toilet usage. It is important to reinforce effort (such as visiting the toilet) as well as performance (defecation). So, in cases where desensitization is unnecessary, the child may be given one reward on the chart for visiting the toilet and sitting there for 5 minutes. Two rewards on the chart may be given for defecation. In cases where desensitization is necessary, a reward on the chart should be given for each step or successive approximation to appropriate toilet use, no matter how small. The reinforcement value of reward charts may be increased by tailoring their design to the children's wishes and interests. For example, youngsters interested in football may be given stickers of football players from their favourite team to stick on the chart, rather than colouring in a smiling face. With young children, Advent calendars which contain a series of numbered doors behind which a piece of chocolate is hidden may be used. Parents should be helped to avoid using coercion and punishment since they increase the probability of relapse. Parents should be encouraged to use praise liberally with their children for all approximations to proper toilet usage.

With young children who are very frightened for sitting on a potty, defecation in a nappy or diaper may initially be rewarded as the first approximation to defecation in a potty. The rationale for beginning shaping by first reinforcing defecation needs to be carefully explained to parents who have inadvertently been reinforcing faecal retention by praising their children for having clean nappies or diapers and punishing them for soiling. With young children, special devices such as musical pots or musical toilet seats may be used which offer immediate reinforcement when a stool is passed. With older children sitting on the toilet may be made intrinsically reinforcing by providing children with interesting activities such as reading stories, listening to music, or playing handheld electronic games while sitting on the toilet.

For school-aged children particularly, a routine for accident management needs to be developed. Youngsters should be helped to make a discreet *clean-up kit* to put in their school-bag. This may include clean underwear, tissues, wet wipes and a plastic bag for storing the soiled underwear.

Where children have constipation problems, a high-fibre diet and six to eight glasses of water per day is essential. Fruit, vegetables, high-fibre and breakfast cereals should all be a regular part of the child's diet and each meal should contain a portion of food with a high-fibre content. Foods that slow the movement of the bowels such as milk and milk-based products should be taken in moderation. Sweets should be avoided before meals since they reduce appetite and make it difficult for children to eat the high-fibre food essential for good bowel motility. A dietician may be consulted where advice on the development of a high-fibre diet for a specific case, that does not respond to this simple approach, is required. Regular daily exercise increases bowel motility and a schedule of such regular activity should be drawn up in cases where children have developed a sedentary lifestyle. Reward charts may be used to motivate children to adhere to particular dietary and exercise routines.

Biofeedback. In some cases, children may be unable to learn to recognize when they are about to defecate. In such instances biofeedback may be useful adjunct to the programme described here, although available evidence shows it adds little to the effectiveness of multi-modal programmes such as that described earlier (Mellon, 2012).

There is wide variability in the duration of effective treatment for children with encopresis. A good rule of thumb is that an initial series of three or four paediatric appointments are necessary to assess the child's physical health and arrange clearance of the faecal mass. It is useful if the psychologist becomes involved with the parents and child as early as possible and the ideal is for them to be given an initial joint consultation with the paediatrician and psychologist. During this period, the psychologist's main role is to educate the parents and child and build a good working alliance. After initial assessment, about 6–10 follow-up appointments with the psychologist focusing on the bowel retraining programme described earlier is usually required. These appointments may span up to 18 months with initial appointments occurring weekly and later appointments occurring less frequently.

Internet-based interventions

Evidence from a controlled trial supports the effectiveness of an Internet-based intervention programme similar to that described earlier, called U-Can-Poop-Too (Ritterband et al., 2013). The programme includes psychoeducation similar to that described earlier, and guidance on using medication, developing toileting routines, diet, hygiene, mood management, and managing peer- and school-related stresses associated with encopresis.

Summary

Elimination problems constitute a heterogeneous group of disorders that result from a failure to develop bowel and bladder control in the first 5 years of life. Enuresis and encopresis may be primary or secondary, occur alone or together, occur diurnally or nocturnally or both, be intentional or unintentional, and occur as a monosymptomatic presentation or as part of a wider set of adjustment problems. Under 3% of 10 year olds have elimination problems and their prevalence reduces markedly over adolescence. Hypotheses derived from biological, developmental, psychopathological, psychodynamic, behavioural and family systems theories have inspired most of the research on elimination disorders. Both biological and psychosocial predisposing factors have been identified for the elimination disorders and these include structural and functional urethral and anorectal abnormalities, developmental delays and a chaotic family environment. Biological and psychosocial precipitating factors have also been identified, with urinary tract infections or chronic constipation falling into the former category and life stresses including sexual abuse falling into the latter category. Both biological and psychological factors may maintain elimination problems. With enuresis chief among these are urinary tract infections, failure to become conditioned to recognize bladder filling as a discriminative stimulus for toileting and negative parent–child interactions. For primary and secondary monosymptomatic nocturnal enuresis urine alarm–based programmes and desmopressin are effective treatments in most cases. The effects of urine alarm–based programmes are usually relatively long-lasting, whereas relapses typically occur when desmopressin is discontinued, so in most cases a urine alarm programme is the first intervention of choice.

For encopresis, the treatment of choice is a multi-modal paediatric and psychological treatment programme involving psychoeducation, clearing the faecal mass (where there is overflow incontinence) and bowel retraining.

Exercise 7.1

Terry, aged 7, has been referred for consultation because of soiling and wetting problems. He wets his bed a few nights per week and soils his pants during the day. The soiling mainly occurs at weekends. Both problems are increasing tensions within the family. Terry is the eldest of five children and lives with his mother and step-father in a rented apartment. His mother has a history of depression and has been treated with antidepressants by the family doctor on a number of occasions.

- Draw up a preliminary formulation or hypothesis.
- How would you assess this case?
- What difficulties would you expect to encounter during assessment and treatment?
- How would you manage these?

Further reading

Buchanan, A. (1992). *Children who soil. Assessment and treatment*. Chichester: Wiley.

Christophersen, E., & Frimen, P. (2010). *Elimination disorders in children and adolescents*. Cambridge, MA: Hogrefe.

Herbert, M. (1996). *Toilet training, bedwetting and soiling*. Leicester: British Psychological Society.

von Gontard, A., & Neveus, T. (2006). *Management of disorders of bladder and bowel control in childhood*. London: MacKeith Press.

Further reading for parents and children

Azrin, N., & Besalel, V. (1979). *A parent's guide to bedwetting control*. New York: Simon & Schuster.

Galvin, M., & Ferrero, S. (1991). *Clouds and clocks: A story for children who soil*. Washington, DC: Magination Press.

Houts, A., & Liebert, R. (1984). *Bedwetting: A guide for parents and children*. Springfield, IL: Charles C. Thomas.

Websites

An Internet-based encopresis treatment programme: http://www.ucanpooptoo.com

Education and Resources for Improving Childhood Continence (ERIC): http://www.eric.org.uk/

Chapter 8

Intellectual, learning and communication disabilities and disorders

In this chapter intellectual, learning and communication disabilities and disorders will be considered. In DSM-5 (APA, 2013) and ICD-10 (WHO, 1992) distinctions are made between general intellectual disabilities on the one hand and all other learning and communication problems on the other. Both systems also distinguish between specific communication disorders and other specific learning disorders associated with the development of academic and motor skills. DSM-5 distinguishes between learning problems that have been present from birth and learning problems associated with traumatic brain injury. Finer distinctions made within the ICD and DSM systems for the subtyping of learning and communication problems will be discussed in subsequent sections of this chapter.

The chapter is organized as follows. Accounts of clinical features, epidemiology, outcome, aetiology and *specific* approaches to assessment and intervention will be given for each of the following four clusters of problems:

- intellectual disability
- language disorder
- specific learning disorders
- neurocognitive disorders due to traumatic brain injury.

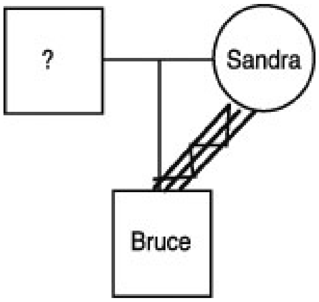
The chapter will close with a discussion of *general* principles that apply to the use of psychometric tests in clinical practice and a consideration of prevention.

In deciding on the level of detail to include in this chapter, account has been taken of the way in which many professional training programmes in clinical psychology are structured in Ireland and the UK. In addition to a course on child and adolescent clinical psychology, for which books like this are the major text, students usually complete additional courses on intellectual disability (Carr et al., 2016), psychological testing (Sattler, 2008, 2014) and paediatric neuropsychology (Davis, 2011). The information presented in this chapter is intended as a very brief supplement to these other courses.

Intellectual disability

A case of intellectual disability (ID), of the type often seen in child and family psychology clinics, is presented in Box 8.1. In this chapter the term 'intellectual disability' will be used to refer to what is called 'mental retardation' in ICD-10, 'learning difficulties' in the UK, and 'mental handicap' in parts of Ireland and elsewhere. A thorough discussion of the evolution of the term 'intellectual disability' is given in Parmenter (2001). In Table 8.1definitions of ID are given from three widely used classification systems: ICD-10, DSM-5 and the AAIDD-11 (AAIDD, 2010). AAIDD-11 is the eleventh revision of the American Association on Intellectual and Developmental Disabilities manual – *Intellectual Disability: Definition, Classification and Systems of Support*. Also included in the table in the column summarizing the ICD-10 definition of ID is reference to the disability model described in the World Health Organization's International Classification of Functioning, Disability and Health (ICF; WHO, 2001, 2007).

Box 8.1 A case of intellectual disability



Bruce, aged 7, was referred by his teacher because of concerns about his lack of academic progress and conduct problems. Bruce was the only child in a single-parent family, who had moved to the district 3 years previously. His unemployed mother, Sandra, was known to social services and there had been an ongoing concern that Bruce was at risk for neglect. Records from Sandra's previous health district indicated that, while in secondary school, she had been psychologically assessed and found to be functioning in the IQ range of 50–70 associated with mild intellectual disability. Sandra and Bruce lived in a council apartment where the preliminary assessment was conducted. The family's living arrangements were chaotic, with no routines for eating, sleeping, management of finances, punctual school attendance, babysitting or hygiene. Sandra found coping with Bruce extremely challenging, although the mother and child had a strong mutual attachment.

A psychometric evaluation of Bruce showed that on the WISC-IV he had a full scale IQ of 68 with an unremarkable sub-test profile. On the Wide Range Achievement Test-4 he obtained reading, spelling and arithmetic scores which fell below the second percentile and were, therefore, consistent with his overall level of ability. On both the Child Behaviour Checklist and the Teacher Report Form, Bruce's scores on the Externalizing Scale fell above the 98th percentile, confirming the presence of clinically significant conduct problems both at home and at school. On the Adaptive Behaviour Scale (School Edition), independent functioning and communication were the two principal areas in which adaptive behaviour deficits were detected.

Taken together, these results indicated that Bruce had a mild intellectual disability characterized by difficulties in the areas of academic attainment, independent functioning, communication and controlling aggression and destructiveness. Bruce was living within an isolated single-parent family, and while his mother provided emotional care she needed a substantial amount of support to be able to provide Bruce with the supervision, structure and intellectual stimulation required for him to function optimally.

Arrangements were made for Sandra to receive behavioural parent training to manage Bruce's aggression at home and to develop play routines so that she could meet Bruce's need for intellectual stimulation. In addition, a home-help was organized to offer support with household management. At school, a curriculum more closely suited to Bruce's ability level was selected.

Ongoing inter-agency liaison with social services was arranged, since social services continued to monitor the family for child protection risk.

Table 8.1 Diagnosis of intellectual disability

ICD-10/ICF	*DSM-5*	*AAIDD-11*
		Intellectual disability is characterized by significant limitations in (A) intellectual functioning and in (B) adaptive behaviour as expressed in conceptual, social, and practical adaptive skills. (C) This disability

For a definite diagnosis of mental retardation there should be a

(A) reduced level of intellectual functioning resulting in

(B) diminished ability to adapt to the daily demands of the normal social environment.

The assessment of intellectual level should be based on clinical observation, standardized ratings of adaptive behaviour and psychometric test performance.

Mild mental retardation

- An IQ of between 50 and 69.
- Children may have some learning difficulties in school. In adults, a mental age of 9 to 12 years.
- Many adults will be able to work, maintain good social relationships and contribute to society.

Moderate mental retardation

- An IQ of between 35 and 49.
- Most children will show marked developmental delays but most can

Intellectual disability (intellectual developmental disorder) is a disorder with onset during the developmental period that includes both intellectual and adaptive functioning deficits in conceptual, social and practical domains. The following three criteria must be met:

A. Deficits in intellectual functions, such as reasoning, problem-solving, planning, abstract thinking, judgment, academic learning, and experiential learning, confirmed by both clinical assessment and individualized standardized intelligence testing.
B. Deficits in adaptive functioning that result in failure to meet developmental and sociocultural standards for personal independence and social responsibility. Without support, the adaptive deficits limit functioning in one or more

originates before age 18.

For a diagnosis there must be

- A standardized intelligence test score 2 standard deviations below the mean
- A standardized rating of adaptive behaviour in one or more domains (conceptual social or practical) 2 standard deviations below the mean

Five assumptions are entailed by this definition

1. Limitations in present functioning must be considered within the context of community environments typical of the individual's age peers and culture.
2. Valid assessment considers cultural and

learn to develop some degree of independence in self-care and acquire adequate communication and academic skills. In adults, a mental age of 6 to 9 years.

- Adults will need varying degrees of support to live in the community.

Severe mental retardation

- An IQ of between 20 and 34.
- A mental age of 3 to 6 years.
- Likely to result in continuous need for support.

Profound mental retardation

- An IQ of below 20.
- A mental age less than 3 in adults.
- Severe limitations in self-care, continence, communication and mobility.

activities of daily life, such as communication, social participation, and independent living across multiple environments such as home, school, work and community.

C. Onset of intellectual and adaptive deficits occur during the developmental period.

linguistic diversity as well as differences in communication, sensory, motor and behavioural factors.

3. Within an individual, limitations often coexist with strengths.
4. An important purpose of describing limitations is to develop a profile of needed supports.
5. With appropriate personalized supports over a sustained period, the life functioning of the person with mental retardation generally will improve.

Model of intellectual disability

The definition is based on a model in which level of individual functioning is

		defined by status on 5 factors.
Model of intellectual disability In ICF functioning and level of activity or disability is determined by • Health status (disease or disorder) • Bodily functions and structures (impairments) • Participation (restrictions) • Environmental factors (barriers and hindrances) • Personal factors (demographic profile) Diagnosis coded on Axis III for children Diagnosis coded on Axis I for adults	(For specification of mild, moderate, severe and profound levels of intellectual disability see DSM-5, pp. 33–36.)	• Intellectual abilities • Adaptive behaviour • Health • Participation, interactions & social roles • Social context The impact of these 5 factors on functioning is mediated by supports

Note: DSM-5 diagnostic criteria are reprinted with permission from the *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition* (APA, 2013). Copyright © 2013 American Psychiatric Association. AAIDD-11 diagnostic criteria are adapted from AAIDD, 2010. The material in the column headed ICD-10 is a summary of the clinical description and diagnostic guidelines for mental retardation given in WH0, 1992, 1996, and of functioning given in the international classification of functioning contained in WHO, 2001, 2007. For the full official WHO clinical description and diagnostic guidelines for mental retardation see WHO, 1992, pp. 225–231. For the full ICF see WHO, 2002, pp. 1–266. For the full ICF-CY see WHO, 2007, pp. 1–265.

Deficits in both intellectual functioning and adaptive behaviour are central to the definitions of ID in all three systems included in Table 8.1. In addition to these deficits, the criterion that the diagnosis of ID be made before the age of 18 is specified in the DSM and AAIDD, but not ICD definition, although it is probably implicit in the ICD system. There is also an acceptance in the three systems that functional deficits are indicated by scores of 70 or below on reliable and valid appropriately standardized psychometric assessment instruments. Widely used intelligence tests for people of different ages are listed in Table 8.2. In Table 8.3 a list of widely used adaptive behaviour scales is given.

Explicit models of key factors that affect functioning in people with ID have been offered by the World Health Organization in the ICF (WHO, 2001, 2007) and by AAIDD. In the ICF model, level of activity, functioning and disability are conceptualized as being determined by (1) health status (disease of disorders), (2) bodily functions and structures (impairments), (3) restrictions to participation in community life, (4) environmental barriers and hindrances, and (5) personal demographic profiles. Within the AAIDD model, a person's level of functioning is conceptualized as being affected by (1) intellectual abilities, (2) adaptive behaviour, (3) participation, interactions and social roles in the community, (4) health, and (5) the wider social context. The impact of these five factors on functioning is mediated by the availability of supports. There is considerable overlap between the ICF and AAIDD conceptual models of intellectual disability.

Sub-classification of ID is useful for communication, research, service and support development, and funding (AAIDD, 2010). The ICD, DSM and AAIDD use different sub-classification systems. Sub-classification within the ICD system into mild, moderate, severe and profound levels of intellectual disability is based on level of intellectual functioning as follows:

Table 8.2 Psychometric instruments for the assessment of intelligence and general cognitive abilities

Age range where instrument is particularly useful	*Instrument*	*Comments*
Infants	Bayley, N. (2006). *Bayley Scales of Infant and Toddler Development, Third Edition (Bayley-III)*. San Antonio, TX: Harcourt/Pearson.	• Standardized in the US and UK on children aged 1–42 months. • UK–Ireland norms are available in a supplement. • Contains over 100 items and requires about an hour to administer. • Yields scores on cognitive, language and motor development scales and includes an infant behaviour record that assesses social-emotional and adaptive behaviour.
	Wechsler, D. (2012). *Wechsler Preschool and Primary Scale of Intelligence – Fourth*	• Standardized in the US and UK on

Toddlers under 5 and pre-adolescents	*Edition (WPPSI-IV).* San Antonio, TX: Psychological Corporation. Wechsler, D. (2014). *Wechsler Preschool and Primary Scale of Intelligence – Fourth Edition UK (WPPSI-IV-UK).* San Antonio, TX: Psychological Corporation.	children aged 2 years 6 months −7 years 7 months. • Contains 15 sub-tests and takes an hour to administer. • For children under 4 yields full scale IQ and indices for verbal comprehension, visual-spatial and working memory and additional scores for fluid reasoning and processing speed for children over 4 years.
	Luiz, D., Barnard, A., Knosen, N., Kotras, N., Horrocks, P. et al. (2006). *Griffiths Mental Development Scales – Extended Revised: 2 to 8 years (GMDS-ER 2–8).* Oxford: Hogrefe.	• Standardized in the UK on children aged 2 months to 8 years. • Contains over 100 items and takes about an hour to administer. • Yields a general quotient and six sub-scale scores: locomotor, personal-social, language, eye and hand co-ordination, performance, and practical reasoning.
	McCarthy, D. (1972). *McCarthy Scales of Children's Abilities.* San Antonio, TX: Psychological Corporation.	• Standardized in the US on children 2.5–8.5 years. • Contains 18 tests and takes about an hour to administer. • Yields scores on a general scale and verbal, perceptual-performance, quantitative, memory and motor sub-scales.
Under 5s (but also over 5s and adolescents)	Roid, G. (2003). *Stanford-Binet Intelligence Scales – Fifth Edition (SB-V).* Itasca, IL: Riverside.	• Standardized in the US on a sample of 4,800 aged 2–85 years. • Contains 10 sub-tests. • Yields a full scale IQ, verbal and non-verbal IQ and scores on five Cattell-Horn-Carroll factors: fluid reasoning, knowledge, quantitative reasoning, visual-spatial processing and working memory.
	Elliott, C., & Smith, P. (2012). *British Ability*	• Standardized in the UK on children aged 3–18 years. • Contains 20 sub-tests.

	Scales – Third Edition. (BAS III). London: GL Assessment.	• Takes 40 minutes to administer. • Yields indices for general intelligence, reading, spelling, arithmetic and various cognitive skills.
	Kaufman, A., & Kaufman, N. (2004). *Kaufman Assessment Battery for Children – Second Edition (KABC-II).* Circle Pines, MN: American Guidance Service.	• Standardized in the US on children aged 2.5–18 years. • Contains 18 sub-tests and takes an hour to administer. • Yields scores for components of both the Luria neuropsychological model and the Cattell-Horn-Carroll model. • On the Luria model give an index of overall intelligence and non-verbal intelligence as well as four scale scores: sequential processing, simultaneous processing, planning ability, learning ability. • On the Cattell-Horn-Carroll model gives an overall fluid crystallized index and a non-verbal index as well as five sub-scale scores: visual procession, short-term memory, fluid reasoning, long-term storage and retrieval, and crystallized ability.
	Woodcock, R. W., Mather, N., & McGrew, K. S. (2001). *Woodcock–Johnson III Tests of Cognitive Abilities Examiner's Manual.* Itasca, IL: Riverside.	• Standardized in the US on a sample of 2–90 year olds. • Contains 20 sub-tests and takes an hour to administer. • Yields scores for nine Cattell-Horn-Carroll factors: comprehension-knowledge, long-term retrieval, visual-spatial thinking, auditory processing, fluid reasoning, processing speed, short-term memory, quantitative knowledge and reading-writing.
Children over	Wechsler, D. (2003). *Wechsler Intelligence Scale for Children – Fourth Edition (WISC-IV).* San Antonio, TX: Psychological	• Standardized in the US and UK on 6–16 year olds. • Contains 15 sub-tests.

6 and adolescents	Corporation. Wechsler, D. (2004). *Wechsler Intelligence Scale for Children – Fourth Edition UK (WISC-IV UK)*. Oxford: Pearson.	• Takes about an hour to administer. • Yields a full scale IQ, and scores for verbal comprehension, perceptual reasoning, working memory and processing speed.
	Wechsler, D. (2014). *Wechsler Intelligence Scale for Children – Fifth Edition (WISC-V)*. San Antonio, TX: Psychological Corporation.	• Standardized in the US on 6–16 year olds. • Takes about an hour to administer. • Yields a full scale IQ and scores for verbal comprehension, visual-spatial, fluid reasoning, working memory and processing speed. • Digital version and traditional versions are available.
Older adolescents and adults	Wechsler, D. (2008). *Wechsler Adult Intelligence Scale – Third Edition (WAIS-IV)*. San Antonio, TX: Psychological Corporation Wechsler, D. (2010). *Wechsler Adult Intelligence Scale – Third Edition UK (WAIS-IV-UK)*. Oxford: Pearson.	• Standardized in the US and UK on 16–90 year olds. • Contains 15 sub-tests. • Takes about an hour to administer. • Yields a full scale IQ and scores for general ability, verbal comprehension, perceptual reasoning, working memory and processing speed.

Table 8.3 Psychometric instruments for the assessment of adaptive behaviour

Instrument	*Comments*
Lambert, N., Nihira, K., & Leyland, H. (1993). *Adaptive Behavior Scale – School Version Second Edition.* Washington, DC: AAMR. Nihira, K., Leyland, H., & Lambert, N. (1993).	• Standardized in the US on a sample aged 3–69 years. • Contains over 100 items and takes 30 minutes for teacher, parent or caretaker to complete.

Adaptive Behavior Scale – Residential and Community Version Second Edition. Austin, TX: Pro-Ed.	• Yields scores for personal self-sufficiency, community self-sufficiency, personal-social responsibility, social adjustment and personal adjustment.
Sparrow, S., Balla, D., & Cicchetti, D. (2005). *Vineland Adaptive Behavior Scales-II. Survey forms manual.* Bloomington, MN: Pearson. Sparrow, S., Balla, D., & Cicchetti, D. (2006). *Vineland Adaptive Behavior Scales-II. Teacher rating form manual.* Bloomington, MN: Pearson. Sparrow, S., Balla, D., & Cicchetti, D. (2008). *Vineland Adaptive Behavior Scales-II. Expanded interview form manual.* Bloomington, MN: Pearson.	• Standardized in the US on a sample 0–90 year olds. • There are three versions: survey form, teacher form and expanded interview form. • The expanded form contains over 400 items and takes an hour for a parent or caretaker to complete. The other two forms contain between 200 and 300 items and take about 30 minutes to complete. • Yields scores in 11 sub-domains and four domains: communication, daily living skills, socialization, and motor skills and maladaptive behaviour.
Harrison, P., & Oakland, T. (2003). *ABAS. Adaptive Behavior Assessment System-II.* San Antonio, TX: Psychological Corporation.	• Normed on large US sample of children and adults. • There are five forms for completion by parents, teachers or caregivers for individuals of differing ages (pre-school, school-age, adult). • Various forms contain between 190 and 250 items and can be completed in 20 minutes. • Yields scores for 10 areas of adaptive behaviour: communication, functional academics, self-direction, leisure, social, self-care, home or school living, community use, health and safety, and work. • Scores are linked to WISC and WAIS.
	• Standardized in the US on a sample of 0–80 year olds. • Contains over 300 items and takes an hour for a parent or

Bruininks, R., Woodcock, R., Weatherman, R., & Hill, B. (1996). *Scales of Independent Behavior – Revised*. Itasca, IL: Riverside.	caretaker to complete. There is a 32-item short form and an early development form. • Yields scores on 14 behaviour sub-scales grouped into four domains (motor, social interaction and communication, personal living and community living) and eight maladaptive behaviour sub-scales grouped into three domains (internalized behaviour problems, externalized behaviour problems and asocial maladaptive behaviour). • The scale is a component of the Woodcock-Johnson Psychoeducational Battery.
Adams, G. (1999). *Comprehensive Test of Adaptive Behavior – Revised*. Seattle, WA: Educational Achievement Systems.	• Normed on large US sample of children and adults. • Contains 495 male and 523 female items and yields scores on adaptive behaviour and problematic behaviour and can be completed using data from teachers and parents or carers. • Yields scores for self-help skills, home living skills, independent living, social skills, sensory and motor skills, and language and academic skills.
Newborg, J. (2005). *The Battelle Developmental Inventory – Second Edition (BDI-2)*. Itasca, IL: Riverside.	• Normed on a US sample of 2,500 children aged 7–11 years. • There is a long form containing 450 items and a screening form containing 100 items. • Items are scored based on parent report, observation of child in natural setting or structured testing. • The long form takes over an hour to administer and the screening version can be completed in 20 minutes. • The long form yields scores in five domains: adaptive, personal-social, communication, motor and cognitive.
McCarney, S., & Arthaud, T. (2006). *Adaptive Behavior Scale – Revised Second Edition (ABS-R2)*. Columbia, MO: Hawthorne Educational Services.	• Normed on a US sample of over 5,000 children aged 4–18 years. • There are forms for completion by parents and teachers for pre-adolescents and adolescents. • All forms contain under 70 items and can be completed in 20 minutes. • Yields scores for communication, functional academics, social, leisure, self-direction, self-care, home living, community living, health and safety, and work. • It is linked to an adaptive behaviour intervention system.

- mild ID: 50–69
- moderate ID: 35–49
- severe ID: 20–34
- profound ID: below 20.

In the DSM classification system, the level of severity of intellectual disability is defined on the basis of adaptive functioning within the conceptual, social and practical domains. In the AAIDD system, a multi-dimensional classification system is used. Cases are classified in terms of their status on the five factors of the AAIDD model of intellectual disability (intellectual abilities, adaptive behaviour, health, participation and social context) and the intensity of support needs assessed by the Supports Intensity Scale (Thompson et al., 2004).

Epidemiology

Using a criterion of an IQ below 70 and impaired adaptive behaviour, the overall prevalence of ID is 1–3% (Cooper & Smiley, 2009; Einfeld & Emerson, 2008; Hatton, 2012; Maulik et al., 2011). Epidemiological community surveys show that about 85% of people with ID fall into the mild range, 10% into the moderate range, 3–4% into the severe range and 1–2% into the profound range. Typically administrative prevalence rates are lower than those from community surveys. For example, the national administrative prevalence of ID in Ireland in the year 2000 was 7% and of these cases 41% had mild disabilities, 36% moderate, 15% severe and 4% profound (Mulvaney, 2000). Clearly, many cases of mild ID went undetected in Ireland in 2000. ID is more common among males than females. There are high rates of mental health problems such as autism spectrum disorder (ASD), disruptive behaviour disorders, especially attention deficit hyperactivity disorder (ADHD) and psychoses among people with ID (Matson & Williams, 2014). Other difficulties such as challenging behaviour, epilepsy, and sensory and motor impairments are all far more common among people with intellectual disabilities (Hatton, 2012). The best prognosis occurs for people with mild disabilities and good adaptive behavioural skills, few co-morbid difficulties and come from stable families and contexts within which there is a good deal of support (Dosen & Day, 2001; Kaski, 2009; Volkmar & Dykens, 2002).

Clinical features

Children with mild, moderate, severe and profound intellectual disabilities have different profiles of clinical features in terms of IQ and adaptive behaviour.

Mild ID. These children have IQs in the 50–70 range and comparable levels of adaptive behaviour deficits. They are slower to develop communication and adaptive behavioural skills during their pre-school years than children of normal ability. However, by 5 years of age they have acquired basic self-care skills and can interact socially with a degree of competence. They show little significant sensorimotor impairment. However during their primary school years they show significant difficulties in acquiring academic skills such as those required for reading, writing and arithmetic. It is often because of these difficulties that they are referred for psychological assessment. Unlike children with specific learning disabilities, such as dyslexia, children with mild intellectual disabilities have pervasive rather than circumscribed academic difficulties and their overall IQ falls below 70. In contrast children with specific learning disabilities have IQs above 70 and circumscribed academic difficulties. With sufficient educational supports most children and adolescents with mild intellectual disabilities can develop some academic and vocational skills. Socially children with mild ID may have some difficulty making and maintaining peer relationships, regulating emotions in an age-appropriate way, and making complex judgements about health, safety or money.

Moderate ID. These children have IQs in the 35–49 range and comparable levels of adaptive behaviour deficits. They show a significant developmental delay in the acquisition of gross motor, fine sensorimotor, communication, self-care and adaptive behavioural skills during the pre-school years, which often leads to a referral for psychological assessment. During their childhood years some develop skills to interact socially with adults and peers with a degree of competence while others have great difficulty developing such skills throughout their lives. They have considerable difficulty regulating emotions in an age-appropriate way, and this may lead to referrals for management of challenging behaviour in a significant minority of cases. They are also unable to make complex judgements about health, safety or money. During their primary school years they show significant difficulties in acquiring basic academic skills. With sufficient educational supports and an appropriate curriculum, some children and adolescents with moderate intellectual disabilities can develop self-care and some academic and vocational skills.

Severe ID. These children have IQs in the 20–34 range. They also have comparable levels of adaptive behaviour deficits. They show a pronounced developmental delay in the acquisition of gross motor, fine sensorimotor, communication, language and adaptive behaviour skills during the pre-school years. This often leads to a referral for psychological assessment prior to 3 years of age. During their primary school years some develop skills to interact socially with adults and peers, while others have great difficulty developing such skills throughout their lives. They have considerable difficulty regulating emotions in an age-appropriate way, and this may lead to referrals for management of challenging behaviour in a significant minority of cases. They are unable to make complex judgements about health, safety or money. During their primary school years the focus is appropriately on acquiring self-care, adaptive behavioural skills and basic communication skills rather than academic skills. With sufficient educational supports and an appropriate curriculum some adolescents with severe intellectual disabilities can develop a small reading vocabulary, which is useful for interpreting public signs or notices.

Profound ID. These children have IQs below 20. They show a very marked developmental delay in the acquisition of gross motor, fine sensorimotor, communication, language and adaptive behavioural skills. This usually leads to a referral for psychological assessment prior to 3 years of age. Because of restricted mobility, incontinence and difficulty acquiring communication skills, as children, adolescents and adults, people with profound disabilities usually require intensive supports to maximize their quality of life. A highly structured environment with an individualized relationship with a caregiver is an appropriate level of support for people with severe ID.

Aetiology

Historically, in what has come to be termed the 'two-group' approach, children with intellectual disabilities were classified into those whose ID was due to known organic causes such as Down syndrome, and those where it was assumed that social disadvantage was the primary aetiological factor (Hodapp et al., 2011; Iarocci & Petrill, 2012). Within this system, the 'organic' group tended to have more severe intellectual disabilities than the 'environmental' group. The former were typically classified as having moderate, severe or profound intellectual disabilities, and the latter as having mild disabilities. However, for many cases biomedical and psychosocial risk factors may be identified (Burack et al., 2012; Cooper & Smiley, 2009; Einfeld & Emerson, 2008; Hatton, 2012; Hodapp et al., 2011; Kaski, 2009).

Biological aetiological factors. ID may be caused by a very wide range of organic insults that can occur pre-, peri-, or post-natally (Hodapp et al., 2011; Kaski, 2009). Pre-natal causes include genetically determined syndromes with behavioural phenotypes. There are over 1,000 of these. Down syndrome and fragile X syndrome are by far the most common. Metabolic disorders such as phenylketonuria (PKU) and congenital hypothyroidism may contribute to the development of intellectual disability. Fortunately both of these can be treated: hypothyroidism with thyroxine and PKU with a diet low in phenylalanine. Increasing maternal age (past 30 years) and maternal illness, particularly HIV infection, hepatitis, rubella, diabetes, cytomegalovirus (which causes inflammation of brain tissue), toxoplasmosis (which destroys brain tissue) and bacterial meningitis are risk factors for ID, as is maternal alcohol or drug use and exposure to potential toxins such as lead or radiation. During the peri-natal period, prematurity, low birth weight, birth injury, and neo-natal disorders are all significant risk factors for delayed cognitive development. Important neo-natal disorders include seizures, infections, respiratory distress or anoxia indicated by low Apgar scores, or brain haemorrhage. The infant's post-natal medical status is typically expressed as an Apgar score. Apgar scores range from 0–10, with scores below 4 reflecting sufficient difficulties to warrant intensive care. The score is based on an evaluation of the infant's skin colour (with blue suggesting anoxia), respiration, heart rate, muscle tone and response to stimulation. After birth ID may be caused by many factors including traumatic brain injury, malnutrition, seizure disorders and degenerative disorders. Identifying specific aetiological biomedical factors is important for good clinical practice. In some instances, such as PKU or hypothyroidism, ID may be prevented. In cases where ID is associated with a particular syndrome or behavioural phenotype, then information on the course and outcome for the condition may be used in planning supports. Genetic counselling may be given to families in instances where there is evidence for the role of genetic factors in the aetiology of ID. Also, families may benefit from membership of support groups formed specifically for parents of children with particular syndromes.

Psychosocial aetiological factors. Low socio-economic status and social disadvantage are associated with mild intellectual disability (Einfeld & Emerson, 2008). Poverty, maternal malnutrition, lack of access to pre-natal and birth care, disorganized parental behaviour, parental drug, alcohol and nicotine use, domestic violence, child abuse and neglect, inadequate child education and parental support, and institutional upbringing are among the many possible psychosocial risk factors that link social disadvantage to mild intellectual disability. Pre-, peri- and post-natal family supports, therapy, parent training and child stimulation may modify the impact of these risk factors (Lange & Carr, 2002; O'Sullivan & Carr, 2002).

Assessment and differential diagnosis

The process of assessment and diagnosis of intellectual disability is usually carried out by a multi-disciplinary team which may include members of the following professions: paediatric nursing; clinical, educational or school psychology; speech and language therapy; teaching; psychiatry; neurology; social work; occupational therapy; and physiotherapy. The composition of the assessment team, the way clinical and administrative responsibilities are shared within teams, and the way people are referred for assessment will vary depending upon local practices; health, education and social service systems; and overall policies and legislation, all of which vary from one jurisdiction to another. For clinical psychologists in training, it is important when working on a disability placement or internship to find out how local guidelines are used to implement national policies. For qualified professionals its vital to keep abreast of changes in policy, practices and funding systems for people with disabilities.

In some instances, the risk of ID will be detected through post-natal screening procedures and it may be possible to prevent the development of ID. For example, in Ireland, the UK and many other countries, a test for PKU is routinely conducted shortly after the child is born since, as has been previously mentioned, early detection of this disorder permits the prevention of ID through dietary intervention. In clinical practice the range of disorders to include in the differential diagnosis depends upon the degree of ID, the presence and extent of co-morbid physical and mental health problems, the age of the client, and the observational skills and communication skills of the client's primary carers. Children with specific syndromes that have distinctive clinical features, such as Down syndrome; children with low birth weight; distress at birth; sensory or motor disabilities; or severe intellectual disability will be detected early usually by a paediatrics service through observation and monitoring of attainment of sensorimotor milestones. As part of the differential diagnostic process, psychologists may need to make distinctions between ID, language delay and specific learning disabilities. They may also need to decide in specific cases if co-morbid disorders are present, notably autism, ADHD and epilepsy.

ID versus language disorder. Once there is evidence of a developmental delay, to determine whether it is a specific or general delay in development associated with either language disorder or ID, formal psychological assessment of intellectual abilities, adaptive behaviour and language development may be conducted. This may be repeated at six monthly or annual intervals coupled. Where test scores, clinical observations and data from parental interviews consistently indicate an IQ below 70 and deficits in adaptive behaviour, then a diagnosis of ID may be made. Where children have sensory and motor deficits, psychometric instruments listed in Table 8.4 may be used. With language disorder or a delay in motor development, the child shows delayed development in a circumscribed area but age-appropriate development in other areas. This may be indicated by a major discrepancy of 1–2 standard deviations between scores on a standardized language test such as the New Reynell Developmental Language Scales (listed in Table 8.6) and scores which fall in the normal range on a non-verbal test of general intelligence such as the Leiter International Performance Scale–Revised listed in Table 8.4. The diagnostic criteria for language disorder are given in Table 8.5.

Table 8.4 Instruments for assessing children with motor and sensory impairments

Disability	*Assessment instruments*	*Comments*
Motor disability	Verbal sub-tests of WPPSI, WISC, WAIS and SB.	• Yields verbal IQ or estimate of full scale IQ.
Visual impairment	Verbal sub-tests of WPPSI, WISC, WAIS and SB.	• Yields verbal IQ or estimate of full scale IQ.
	Williams, M. (1956). *Williams Intelligence Test for Children With Defective Vision*. Windsor: NFER.	• Standardized in the UK and yields full scale IQ.
	Davis, C. (1980). *Perkins-Binet Tests of Intelligence for the Blind*. Watertown, MA: Perkins School for the Blind.	• Adapted from Stanford-Binet Intelligence Scale and yields full scale IQ.
	Newland, T. (1971). *Blind Learning Aptitude Test*. Champaign: University of Illinois Press.	• Yields index of overall cognitive ability.

	Stockley, J., & Richardson, P. (1991). *Profile of Adaptive Skills. A rating scale for assessing progressive personal and social development in young people with visual impairment in association with moderate to severe learning difficulties*. London: Royal National Institute for the Blind.	• Assesses adaptive behaviour in a range of areas in visually impaired children.
	Maxfield, K. B., & Buchholz, S. (1957). *A social maturity scale for blind preschool children: A guide to its use*. New York, NY: American Foundation for the Blind.	• Assesses social maturity. • Standardized on children aged 1–6, contains 95 items, and is based on the Vineland Social Maturity Scale.
Hearing impairment or limited language skills	Performance sub-tests of WPPSI, WISC, WAIS and SB.	• Yields non-verbal IQ or estimate of full scale IQ.
	Roid, G., & Miller, L. (1997). *Leiter International Performance Scale – Revised*. Odessa, FL: Psychological Assessment Resources.	• For individuals aged 2–20 years. • Contains 20 sub-tests and requires 40 minutes for administration. • Yields scores for IQ, visualization, reasoning, attention and memory.
	Wechsler, D., & Naglieri, J., (2006). *Wechsler Non-*	• For individuals aged 4–21 years. • Contains six sub-tests for age bands 4–7 years and 8–21

verbal Scale of Ability (WNV). San Antonio, TX: Psychological Corporation.	years. • Requires 20–45 minutes for administration. • Yields an overall IQ score.
Hammill, D., Pearson, N., & Wiederholt, J. (2009). *Comprehensive Test of Nonverbal Intelligence – Second Edition (CTONI-2).* Austin, TX: Pro-Ed.	• For individuals aged 6–90 years. • Contains 20 sub-tests. • Requires 50 minutes for administration. • Yields three IQ scores.
Bracken, B. A., & McCallum, R. S. (1998). *Universal Nonverbal Intelligence Test.* Itasca, IL: Riverside.	• For individuals 5–17 years. • Contains six sub-tests and requires 30–45 minutes for administration. • Yields quotients for memory symbolic and non-symbolic reasoning and overall IQ score.
Brown, L., Sherbenou, R., & Johnsen, S. (2010). *Test of Nonverbal Intelligence – Fourth Edition (TONI-4).* Pearson.	• For individuals aged 6–90 years. • Screening test that requires 20 minutes for administration. • Yields an overall IQ score.

Table 8.5. Diagnosis of language disorder

Table 8.5 Diagnosis of language disorder

DSM-5	*ICD-10*
Language disorder A. Persistent difficulties in the acquisition and use of language across modalities (i.e., spoken, written, sign language, or other) due to deficits in comprehension or production that include the following:	
1. Reduced vocabulary (word knowledge and use). 2. Limited sentence structure (ability to put words and word endings together to form grammatical sentences based on the rules of grammar and morphology). 3. Impairments in discourse (ability to use vocabulary and connect sentences to explain or describe a topic	**Receptive language disorder** A specific developmental disorder in which the child's understanding of language is below the appropriate level for his or her mental age. In almost all cases, expressive language is markedly disturbed and abnormalities in word-sound production are common. Failure to respond to familiar names by the first birthday, inability to name a few objects by 18 months or failure to follow simple, routine instructions by the age of 2 years should be taken as significant signs of delay. Later difficulties include inability to understand grammatical structures (negatives, questions or comparatives) and lack of understanding if more subtle aspects of language (such as tone of voice). **Expressive language disorder** A specific developmental disorder in which the child's ability to use expressive spoken language is markedly below the appropriate level for his or her mental age, but in which language comprehension is within normal limits. There may or may not be abnormalities in articulation. The absence of single words (or word approximations) by two years and the failure to generate simple two-word phrases by 3 years should be taken as significant signs of delay. Later difficulties include restricted vocabulary development, overuse of a small set of general words, difficulties in selecting appropriate words; word substitutions, short utterances, immature sentence structure, syntactical errors especially

or series of events or have a conversation).

B. Language abilities are substantially and quantifiably below those expected for age, resulting in functional limitations in effective communication, social participation, academic achievement, or occupational performance, individually or in any combination.

C. Onset of symptoms is in the early developmental period.

D. The difficulties are not attributable to other sensory impairment, motor dysfunction, or another medical or neurological condition, and are not better explained by intellectual disability (intellectual developmental disorder) or global developmental

omissions of word endings or prefixes, and misuse or failure to use prepositions, pronouns, articles, and verb and noun inflections. Incorrect overgeneralizations of rules may occur as may lack of sentence fluency and difficulties in sequencing when recounting past events. There may also be delays or abnormalities in word-sound production.

delay.

Note: DSM-5 diagnostic criteria are reprinted with permission from the *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition* (APA, 2013). Copyright © 2013 American Psychiatric Association. The material in the column headed ICD-10 is a summary of the clinical description and diagnostic guidelines for expressive and receptive language disorders. For the full official WHO clinical descriptions and diagnostic guidelines for these disorders see WHO, 1992, pp. 237–240.

Table 8.6 Tests for assessing language and attainment problems

Instrument	*Comments*
Bishop, D. (2003). *Children's Communication Checklist-2*. London: Harcourt.	Patient-completed checklist for children 4–16 years to evaluate pragmatic language use in everyday situations.
Edwards, S., Letts, C., & Sinka, I. (2011). *The New Reynell Developmental Language Scales (NRDLS)*. London: GL-Assessment.	The NRDLS is a UK-standardized measure of children's expressive language and verbal comprehension for children aged 2–7 years.
Zimmerman, I., Pond, R., & Steiner, V. (2009). *Preschool Language Scales – Fourth edition (PLS4-UK)*. London: Pearson Assessment. Zimmerman, I., Steiner, V., & Pond, R. (2011). *Preschool Language Scales – Fifth edition (PLS-5)*. San Antonio, TX: Pearson Assessment.	The PLS is a US- and UK-standardized measure of children's expressive language and verbal comprehension for children aged 0–7 years.
Semel, E., Wiig, E., & Secord, W. (2006). *Clinical Evaluation of Language Fundamentals Preschool 2 – UK (CELF UK)*. London: Pearson Assessment.	The CELF UK is a standardized measure of children's expressive language and verbal comprehension for children aged 3–7 years.
Weschler, D. (2009). *Wechsler Individual Achievement Test-III (WIAT-III)*. San Antonio, TX: Psychological Corporation. Wechsler, D. (2005). *Wechsler Individual Achievement-Test II UK (WIAT-II UK)*. San Antonio, TX: Psychological Corporation.	The WIAT is a US- and UK-standardized test for children aged 4 and upwards that yields scores for oral language, written language, reading and maths.
Wilkinson, G. S., & Robertson, G. J. (2006). *Wide Range Achievement Test 4 professional manual (WRAT-4)*. Lutz, FL: Psychological Assessment Resources.	The WRAT-4 is a US-standardized test for individuals aged 5–64 years that yields scores for reading, spelling and maths.

Kaufman, A., & Kaufman, N. (2004). *Kaufman Test of Educational Achievement – Second Edition (KTEA-II).* Pearson.	The KTEA-II is a US-standardized test for individuals aged 4–90 years that yields scores for spoken language, written language, reading and maths.

ID versus specific learning disorder. School-aged children or adolescents, with mild or moderate intellectual disabilities that have gone undiagnosed during the pre-school years, are typically referred to psychologists for assessment of scholastic attainment. There may also be additional concerns about behaviour problems or daydreaming. The principal differential diagnosis in such school-age children is between a specific learning disorder and a general ID. Diagnostic criteria for specific learning disorders are given in Table 8.7. Children with a specific learning disorder obtain full scale IQ scores above 70 and scores on standardized achievement tests, such as those listed in Table 8.6, that fall below the level expected, given their overall IQ. In the manual for the WIAT-II (listed in Table 8.6), tabular systems are given for deciding whether achievement test scores are significantly below the level expected for the child's IQ on a Wechsler intelligence test. Where a person's scores on tests of both intelligence and achievement fall below 70, and the person shows other adaptive behaviour deficits, then a diagnosis of ID may be made.

ID and autism spectrum disorders (ASD). With pre-school children, particularly those who show moderate, severe or profound levels of ID, the possibility of co-morbid ASD should be borne in mind. Children with ID and co-morbid ASD show both delayed development as indicated by full scale IQs below 70 and varying degrees and patterning of qualitative impairments in reciprocal social interaction and communication as well as restricted, stereotyped behaviour patterns. The diagnostic criteria for autism and the assessment of ASD are considered in Chapter 9.

ID and attention deficit hyperactivity disorder (ADHD). As has been mentioned, often when school-aged children with undetected learning disorders are referred for assessment, in addition to scholastic problems, behavioural difficulties are also a concern. Behavioural difficulties may be assessed using ASEBA or SDQ instruments mentioned in Table 4.1. These instruments will indicate the extent of the behaviour problems and the degree to which these are coupled with attention problems suggestive of ADHD. Diagnostic criteria for ADHD are given in Chapter 11.

ID and epilepsy. As has been mentioned, often when school-aged children with undetected learning disabilities are referred for assessment, in addition to scholastic problems, daydreaming is also a concern. Of course in some instances children with intellectual disabilities lose concentration and do not focus on their schoolwork. However, frequently what appear to be daydreaming are petit mal epileptic 'absences'. If children report 'losing time' or not being aware of what is happening during these episodes, a referral for neurological assessment and an EEG is appropriate to determine if a diagnosis of a seizure disorder is warranted. More than a quarter of people with intellectual disabilities also have epilepsy, which can be controlled in most cases with anticonvulsant medication. Also, distress associated with the reactions of the child, parents and teachers to seizures may be greatly reduced if a definitive diagnosis is given, clear psychoeducation about epilepsy offered and an appropriate medication regime put in place. Epilepsy is discussed in Chapter 14.

Table 8.7 Diagnosis of specific learning disorder

DSM-5	*ICD-10*
Specific learning disorder A. Difficulties learning and using academic skills, as indicated by the presence of at least one of the following symptoms that have persisted for at least 6 months, despite the provision of interventions that target those difficulties:	
1. Inaccurate or slow and effortful word reading (e.g., reads single words aloud incorrectly or slowly and hesitantly, frequently guesses words, has difficulty sounding out words). 2. Difficulty understanding the meaning of what is read (may read text accurately but not understand the sequence, relationships, inferences, or deeper meanings of what is read). 3. Spelling difficulties (e.g., may add, omit, or substitute vowels or consonants). 4. Difficulties with written expression (e.g., makes multiple grammatical or punctuation errors within sentences; employs poor paragraph organization; written expression of ideas lacks clarity). 5. Difficulties mastering number sense, number facts, or calculation (e.g., has poor understanding of numbers, their magnitude and	**Specific reading disorder** The child's reading performance should be significantly below the level expected on the basis of age, general intelligence and school placement and not due to visual acuity problems. Performance is best assessed by means of an individually administered, standardized test of reading accuracy and comprehension. In early stages of learning there may be difficulties in reciting the alphabet, naming letters or rhyming. Later there maybe difficulties in oral reading such as omissions, substitutions, distortions, or additions. Slow reading speed, frequent loss of place, and reversals may also occur. Comprehension problems such as inability to recall facts read and inability to draw conclusions from material read may also occur. In later childhood and adulthood spelling difficulties may predominate with

relationships; counts on fingers to add single digit numbers instead of remembering the math fact as peers do; gets lost in the midst of arithmetic computation and may switch procedures).

6. Difficulties with mathematical reasoning (e.g., has severe difficulty applying mathematical concepts, facts, or procedures to solve quantitative problems).

B. The affected academic skills are substantially and quantifiably below those expected for the individual's chronological age, and cause significant interference in academic or occupational performance, or with activities of daily living as confirmed by individually administered standardized achievement measures and comprehensive clinical assessment. For individuals age 17 years and over, a documented history of impairing learning difficulties may be substituted for the standardized assessment.

C. The learning difficulties begin during school age years but may not become fully manifest until the demands for those affected academic skills exceed the individual's limited capacities (e.g., as in timed tests, reading or writing lengthy complex reports for a tight deadline, excessively heavy academic loads).

phonological errors being the most common.

Specific spelling disorder

The main feature of this disorder is a specific and significant impairment in the development of spelling skills in the absence of a history of specific reading disorder, which is not solely accounted for by low mental age,

visual acuity problems, or inadequate schooling.

The ability to spell orally and to write out words correctly are both affected. Children whose problem is solely one of handwriting should not be included, but in some cases spelling difficulties may be associated with problems in writing. Unlike the usual pattern of specific reading disorder, the spelling errors tend to be predominantly phonetically accurate.

Specific disorder of arithmetical skills

The child's arithmetical performance should be significantly below the level expected on the basis of his or her age, general intelligence, and school placement, and is best assessed by means of an individually administered standardized test of arithmetic.

Reading and spelling should be within the normal range.

The difficulties in arithmetic should not be due to grossly inadequate teaching, or to the direct effects of defects of visual, hearing, or neurological function and should not have been acquired as a result of any neurological, psychiatric or other disorder.

D. The learning difficulties are not better accounted for by intellectual disabilities, uncorrected visual or auditory acuity, other mental or neurological disorders, psychosocial adversity, lack of proficiency in the language of academic instruction, or inadequate educational instruction. (For specifiers, see DSM-5, pp. 67–68.)	The arithmetic difficulties that occur are various but may include failure to understand the concepts underlying particular arithmetic operations; lack of understanding of mathematical terms or signs; failure to recognize numerical symbols; difficulty in carrying out standard numerical manipulations; difficulties in understanding which numbers are relevant to the arithmetic problem being considered; difficulty in properly aligning numbers or in inserting decimal points or symbols during calculations; poor spatial organization of arithmetic calculations; and inability to learn multiplication tables. There maybe impairment of visuo-spatial skills.

Note: DSM-5 diagnostic criteria are reprinted with permission from the *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition* (APA, 2013). Copyright © 2013 American Psychiatric Association. The material in the column headed ICD-10 is a summary of the clinical description and diagnostic guidelines for specific reading, spelling and arithmetical skills disorders. For the full official WHO clinical descriptions and diagnostic guidelines for these disorders see WHO, 1992, pp. 245–249.

Assessment of support needs

In addition to the differential diagnosis of ID, support needs should be assessed. The Supports Intensity Scale may be used to assess supports required in 57 life activities in seven areas: (1) home living, (2) community living, (3) lifelong learning, (4) employment, (5) health and safety, (6) social interaction and (7) protection and advocacy (Thompson et al., 2004). The Supports Intensity Scale also measures 15 exceptional medical needs and 13 behavioural support needs, targeting certain medical conditions and challenging behaviours associated with needs for increased levels of support, regardless of the relative intensity of support needs in other life areas. Supports refer to an array of resources and strategies, including individuals, money or tangible assets, assistive devices, or environments that enable people with ID to live normal lives in regular community settings. The nature and intensity of supports required in each of these areas depends upon the discrepancy between the requirements and demands of a child's social environment on the one hand and their intellectual capabilities, adaptive skills, and risk and protective factors on the other. The desired outcomes from using supports include enhanced independence, relationships, and contributions to society, school and community participation and personal well-being. The intensity of supports any person with an ID needs will vary across situations and stages of the lifecycle. Distinctions may be made in between intermittent, limited, extensive or pervasive levels of support. A child requiring intermittent supports needs the support at specific times on an ‘as needed’ basis, such as during lifecycle transitions or crises. A child requiring limited supports needs the support consistently rather than intermittently, but for a time-limited period. A child requiring extensive supports needs regular, long-term support in at least some living environments. This includes daily supports at home, school or work. A child requiring pervasive supports needs constant, high-intensity support across all living environments and these supports are potentially life sustaining. For example, long-term residential care. The AAIDD manual recommends that individualized support plans be written for all children with intellectual disabilities which specify how support activities will address support requirements, and which prioritize the interests and preferences of children and families. Plans should include a system for monitoring goal attainment, favour supports in the client’s natural social network, and specify the agencies and people responsible for finding and implementing the plan. In Ireland and the UK such individualized support plans will include individual educational plans (IEPs) and requirements for family support.

Intervention: four common problem areas

Typically clinical psychologists who work with families containing a child with an ID are required to offer assessment and intervention services to deal with the following five broad problem areas:

- psychoeducation
- organization of appropriate supports and periodic review
- offering life skills training for the child
- providing consultancy to manage challenging behaviour
- counselling during lifecycle transitions and supporting families in dealing with the grief process.

What follows is a brief account of the main practice-related issues in each of these areas (Carr et al., 2016). Typically clinical psychologists working in this area offer their services as part of a multi-disciplinary team.

Psychoeducation. The aim of psychoeducation in cases of ID is to help parents and other family members understand their child’s diagnosis and its implications for the child’s development. It is very challenging for most parents to acknowledge and appreciate the implications of the diagnosis of ID, since the diagnosis violates their expectations associated with having a completely healthy child. Most parents experience shock and denial (two elements of the grief process described shortly). Psychologists on multi-disciplinary teams have a responsibility to help team members give parents and family members a clear, unified and unambiguous message about the diagnosis, since this is what the parents require to work through their denial and get on with the process of accepting their child's disability and dealing with it in a realistic way. Parents should be given information on the normative status of their child's cognitive abilities and adaptive skills and supports necessary for the child to live a normal life. The way in which such supports may be accessed should also be clarified. The main pitfall in psychoeducation is to give parents ambiguous information which allows them to maintain the erroneous belief that their child has no disability or a transient condition that will resolve with maturation.

Organization of appropriate supports and period review. Following the first comprehensive assessment and feedback of diagnostic information, as part of a multi-disciplinary service, clinical psychologists may have a role in organizing and arranging the delivery of appropriate supports for children with intellectual disabilities and their families. The appropriateness of these supports in meeting the changing needs of the child and the burden of care shouldered by the family require periodic review and revision. For good practice in this area, the child and family's support needs must be clearly stated in concrete terms; the precise action plans for arranging supports must be agreed with the family and the professional network; the precise roles and responsibilities of members of the professional network in providing supports must be agreed; the way in which the provision of supports will be resourced financially must be agreed; and the timetable of periodic review dates must be drawn up. Central to this type of system is the concept of a key worker who holds administrative responsibility for ensuring the child's support plan is implemented. Even the most robust system of this type will flounder without an organizational structure which requires key workers to take responsibility for co-ordinating the implementation of support plans. The terminology used to describe these individualized support plans vary from country to country. However the principles of good practice remain the same. Also the precise role of the clinical psychologist in relation to other professionals, including educational and school psychologists, will vary depending upon local and national policy.

Life skills training. The principles of applied behavioural analysis and behaviour modification may be used for designing skills development programmes and training parents and school staff to implement these to help the child develop life skills (Carr et al., 2016).

Challenging behaviour. When self-injurious, aggressive and destructive behaviour occur, assessing the contextual factors that maintain these problems and developing programmes to help children with intellectual disabilities and members of their networks resolve these difficulties is an important part of the psychologist's role. Interventions to reduce the frequency of challenging behaviours should be based on a thorough functional analysis of the immediate antecedents and consequences of such behaviours which may maintain them. A wider ecological assessment is also required to identify both personal attributes and relatively enduring features of the physical and social environment which may predispose children and their carers to become involved in mutually reinforcing patterns of behaviour that maintain aggressive and self-injurious behaviour (Emerson & Einfeld, 2011).

Two common behavioural patterns that may maintain self-injurious behaviour (but which may equally apply to aggressive behaviour) have been described in detail by Oliver (1995). In the first pattern, a period of social isolation leads the child to a state of heightened need for social contact and challenging behaviour occurs. In response to this, the carer provides social contact until the child's need for contact is satiated. When the child's need for contact ceases, it is more likely that the child will engage in challenging behaviour again, since this has been positively reinforced by the carer's attention. It is also more likely that the carer will provide social contact in response to challenging behaviour, since giving attention leads the adult ultimately to experience relief (associated with negative reinforcement) when the challenging behaviour ceases.

In the second pattern, the carer places demands upon the child, and in response, the child engages in challenging behaviour which leads the adult to cease placing demands upon the child. When the episode ceases, the child is more likely in future to engage in challenging behaviour when demands are placed upon him, because in the past this has led to a cessation of demands (negative reinforcement). The adult is more likely to stop making demands in response to challenging behaviour since this has led to a cessation of the child's challenging behaviour (negative reinforcement). This pattern is discussed more fully in Chapter 10 on conduct disorders.

Environmental predisposing factors for challenging behaviour include disruptions of the sleep–waking cycle; disruptions of daily routines; life transitions; living in authoritarian social environments entailing many demands; living in social environments where there is limited contact with carers or teachers due to high staff–student ratios; living in social environments where carers provide few routines and little structure for the child; living in environments where carers are not sensitive to fluctuations in the child's moment-to-moment needs; and frustration tolerance.

Personal predisposing factors for challenging behaviour include a greater degree of ID; fewer adaptive behaviours; more limited expressive language; co-morbid ASD; co-morbid sensory and motor disabilities; and the presence of particular syndromes such as Lesch-Nyhan, Smith-Magenis and Tourette's disorder. Many of these predisposing factors limit the availability of alternative responses of equivalent efficiency through which the child can alleviate the need to make social contact with carers or reduce the demands made by carers.

A functional analysis will identify proximal and distal antecedents and consequences of challenging behaviour. The analysis will suggest potential interventions and these may fall into three broad categories: (1) changing proximal or distal antecedents to pre-empt the occurrence of the challenging behaviour, (2) changing the immediate consequences of challenging behaviour to prevent its reinforcement and (3) functional equivalence training, which provides the child with a more adaptive response that is as efficient as the challenging behaviour for meeting the child's need that was met by the challenging behaviour.

Family grief counselling at lifecycle transitions. Parents, siblings and other family members may require counselling at critical lifecycle transitions such as the diagnosis of ID, the transition to school, leaving school, entering supported employment, leaving home, the onset of parental decline and parental death.

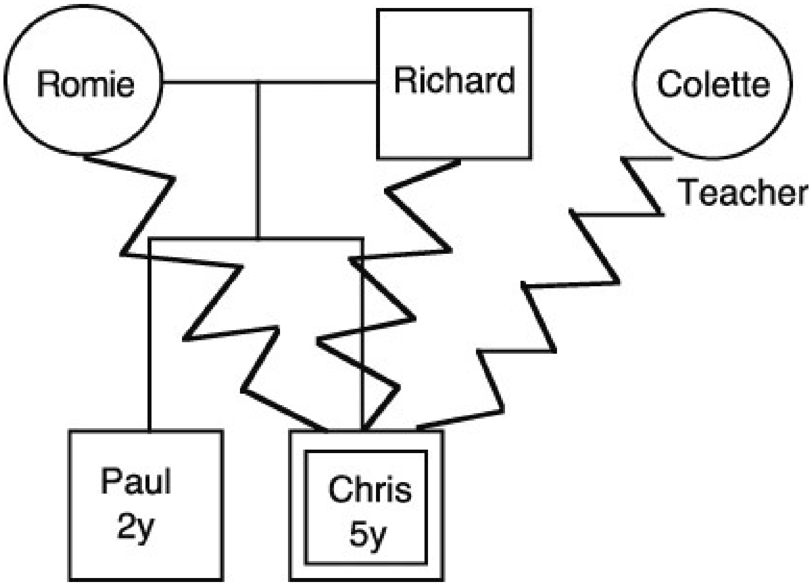
Initially, when parents are informed that their child has ID, a grief process is set in motion which includes the sub-processes of shock, denial, emotional turmoil involving disappointment, anger and guilt, and acceptance. The way the news of ID is broken affects parents' satisfaction with the consultation service received. The following factors are particularly important: the approachableness of the clinician and the degree to which the clinician understands the parents' concerns, the sympathy of the clinician, and the directness and clarity of communication (Quine & Rutter, 1994). This issue has been mentioned earlier in the section on psychoeducation, and grief processes are discussed more fully in Chapter 24.

Throughout the lifecycle at each transition, the family is reminded of the loss of the able-bodied child that was initially expected and the grief process recurs albeit in a progressively attenuated form (Goldberg et al., 1995). Lifecycle transitions are particularly strong triggers for family grief processes, since they entail unique features when compared with lifecycle transitions associated with able-bodied children. For example the transition to school may entail a higher level of concern because of fears that the disability may prevent the child from forming peer relationships and fitting in. The leaving-home transition may occur later in life, if at all. The impending death of the parents may be a particular source of anxiety, since a major concern may be who will care for the disabled child when the parent has died. An important function of the clinical psychologist is to help families both mourn their disappointments but also celebrate the achievements of their children with intellectual disabilities. This may involve offering family counselling or therapy, or offering support and supervision to key workers providing this service.

Language disorder

A distinction may be made between secondary language delay (due to ID, ASD, hearing loss or some such condition) and language disorder (Bishop & Frazier Norbury, 2008; Clegg, 2009; Paul & Norbury, 2012). A case example of a child with a language disorder is presented in Box 8.2. Diagnostic criteria for language disorder are presented in Table 8.5. It is noteworthy that DSM-5 does not make the distinction between receptive and expressive language disorders used in ICD-10 because of the limited evidence for this distinction. It is useful to describe language difficulties in terms of semantics, syntax, pragmatics, phonology and fluency.

Box 8.2 A case of language disorder



Chris was referred at age 5 because his parents and school teacher were concerned about his conduct problems and communication abilities. He was frequently disobedient, seemed to selectively misunderstand instructions and commands given to him by his parents and teachers and only used a limited range of words in speaking with others. His mother was finding that managing his difficulties and the demands of her 2 year old, Paul, were very stressful.

A psychological assessment showed that on both the Child Behaviour Checklist and the Teacher Report Form, his scores on the externalizing scales fell above the 98th percentile and well within the clinical range. On both the Revised Leiter scale and the performance scale of the WPPSI-IV Chris's performance was within the normal range, but on the New Reynell scale receptive and expressive language quotients below the 3rd percentile were obtained. Together, these results indicated that Chris had a language disorder with secondary conduct problems. These probably arose from difficulties in comprehending and internalizing rules for appropriate conduct at home and at school. A home- and school-based behavioural management programme and involvement of a speech and language therapist in the multi-disciplinary management of the case followed from this preliminary psychological assessment.

Semantics. With semantic difficulties the child has a restricted vocabulary and so understands the meaning of a limited number of words and can only use a limited number of words to verbally communicate with others.

Syntax. Problems with syntax or grammar include restricted length of utterance and restricted diversity of utterance types. By 2 years of age, most children should be using multi-word utterances. Children with language disorders characterized by syntactical difficulties are unable to use such multi-word utterances at this stage. Later on, they are slow to use multi-clausal sentences such as 'Where is the ball, that I was playing with yesterday?' They will be confined to using less complex utterances like 'Where is the ball?' Syntactic difficulties are predictive of later reading and spelling problems.

Pragmatics. Problems with pragmatics occur where children are unable to use language and gestures within particular relationships or contexts to get their needs met or achieve certain communicational goals. Up to the age of 2 years, integrating gestures with speech is a key pragmatic skill. In pre-schoolers up to the age of 5, important pragmatic skills are used to tell coherent extended stories about events that have happened. In DSM-5 social (pragmatic) communication disorder is the diagnostic category for children who have significant pragmatic language problems, and are unable to use language socially for greeting, sharing information and holding normal conversations.

Phonology. Phonological difficulties are manifested as inaccurate articulation of specific sounds, typically consonants rather than vowels. The following consonants tend to pose the most difficulties: *r*, *l*, *f*, *v* and *s*. For example, omissions such as *eep* for *sleep*; substitution such as *berry* for *very*; and cluster reduction such as *ream* for *cream*. Where these phonological problems reflect a pre-schooler's difficulty in the motor skills required for correct articulation, the prognosis for both language development and reading skills is good, and such children are indistinguishable from their peers by middle childhood. Speech sound disorder and specific speech articulation disorder are the terms used to describe this condition in the DSM-5 and the ICD-10, respectively.

Where phonological difficulties reflect a lack of phonological awareness, such as an inability to use rhyme and alliteration, the prognosis for the development of reading skills is poor. However, this relationship between problems with phonological awareness and ability to use rhyme and alliteration also holds for children that have no phonological expressive language difficulties. This issue is discussed more fully in the section on dyslexia.

Fluency. Stuttering and cluttering are distinctive fluency problems with the latter involving a rapid rate of speech and consequent breakdown in fluency and the former involving repetitions, prolongations and pauses that disrupt the rhythmic flow of speech. In DSM-5 stuttering is referred to as childhood onset fluency disorder.

Epidemiology

About 6% of children aged 2–7 have speech and language delays; speech problems are more common than language problems; language problems persist longer than speech problems; and both speech and language problems are more common in boys (Law et al., 2000). A significant proportion of children with persistent language problems develop literacy and numeracy problems; internalizing and externalizing and behaviour problems; and co-morbid psychological disorders, notably disruptive behaviour disorders, especially ADHD (Clegg, 2009; Yew & O'Kearney, 2013).

Aetiology

Genetic factors play a significant role in language disorder (Clegg, 2009). Genetic factors probably affect language development through their impact on brain development. Abnormalities in specific types of brain cells (ectopias and microgyri), additional gyri in frontal and temporal lobes, anomalous cerebral lateralization and unusual proportions in different brain regions are the main types of brain abnormalities associated with language disorder (Bishop & Frazier Norbury, 2008). All language delays are more common in boys than girls, so some gender-related biological factors are probably involved in the aetiology of all language problems. A delay in the development of speeded fine-motor skills (but not general clumsiness) has been found to characterize most specific language delays. The language delay and motor delay may both reflect an underlying neurological immaturity which finds expression in slow information processing and limited information-processing capacity (Bishop, 1992). Otitis media (middle ear infection) in a 12- to 18-month period has been shown to precede rapidly resolving specific expressive language delay at 2 years, and expressive language delay at 2 years is associated with problems in oral motor development (Whitehurst & Fischel, 1994).

It is unlikely that psychosocial factors play a major aetiological role in most cases of specific developmental language delay. However, they may play a role in maintaining language problems (Whitehurst & Fischel, 1994). Low socio-economic status, large family size and problematic parent–child interaction patterns involving conduct problems characterize many cases of language disorder, and the more severe the disorder, the worse the conduct problem. Evidence suggests that a variety of mechanisms may link these psychosocial factors to language problems. First, language problems may lead to frustration in the areas of communicating with others or achieving valued goals which finds expression in misconduct. Second, children with language problems may have difficulty controlling their conduct with inner speech. Third, parents with poor parenting skills and multiple stresses (such as large family size and low socio-economic status) may become trapped in coercive cycles of interaction with their children (such as those described in Chapter 10 on conduct disorders). These coercive interaction patterns may then prevent the children from developing language skills through engaging in positive verbal exchanges with their parents. A final possibility is that conduct problems and language problems may both be expressions of an underlying neurological immaturity.

Available longitudinal evidence supports the view that there is a hierarchy of vulnerability in the components of language that are effected in cases of specific language delay and children who change symptoms over time during recovery move up this hierarchy (Whitehurst & Fischel, 1994). The hierarchy moving from the most to the least vulnerable component is as follows:

1. Expressive phonology
2. Expressive syntax and morphology
3. Expressive semantics
4. Receptive language.

Thus a child with expressive semantic problems with maturation when these semantic problems resolve will develop expressive syntax and morphology problems rather than receptive language problems. This hierarchy of vulnerability has led to the view that some aetiological factors must be common to all language disorders. However, there is no doubt that some factors are specific to particular disorders.

Assessment and intervention

About 50% of children referred to child and adolescent mental health services have language problems (Bishop & Frazier Norbury, 2008). For children over 4 years, the Children's Communications Checklist–2 (listed in Table 8.6) may be used to screen for language problems. However, it is not suitable for children who are not yet speaking in sentences.

Where children appear to have significant speech and language problems, psychological assessment of these communication difficulties should ideally be conducted by a multi-disciplinary team (American Academy of Child and Adolescent Psychiatry, 1998). A full paediatric assessment of the child should be conducted to detect the presence of problems such as otitis media and to rule out the presence of neurological and medical conditions such as Duchenne muscular dystrophy. An audiological examination should be conducted to rule out hearing impairment.

In addition to routine interviewing, observation and completion of behaviour checklists and adaptive behaviour scales, assessment should involve the administration of standardized receptive and expressive language tests along with a measure of non-verbal intelligence. A number of psychometric instruments that are useful in the assessment of communication problems are listed in Table 8.6. Where measures of non-verbal intelligence, receptive and expressive language and adaptive behaviour all fall 2 standard deviations below the mean (or a standard score of 70), then the language problem is secondary to ID. Where the non-verbal intelligence score is within the normal range, and receptive or expressive language quotients fall 1.5–2 standard deviations below average, a diagnosis of specific language disorder may be made and reference should be made to diagnostic criteria presented in Table 8.5.

Language disorder may be distinguished from the following three syndromes (Bishop &

Frazier Norbury, 2008):

- ASD
- Landau-Kleffner syndrome
- selective mutism.

Specific language delay may be distinguished from ASD by a number of features. ASD children show more echolalia, pronominal reversal, stereotyped utterances, lack of gesture, undue sensitivity to noise and lack of imaginative play. A full account of ASD is given in Chapter 9.

Specific language delays which are present from birth are distinguished in ICD-10 from acquired aphasia with epilepsy (Landau-Kleffner syndrome). In this syndrome, a child with normal cognitive and linguistic skills loses expressive and receptive language skills after a period of normal development while retaining normal intelligence. Concurrently there are EEG bilateral temporal lobe abnormalities and seizures consistent with a diagnosis of epilepsy. The onset of Landau-Kleffner syndrome occurs between ages 3 and 7. About a third of cases recover and two-thirds retain a severe language disorder. The cause of the disorder is unknown but it is presumed to be due to an inflammatory encephalitic process. These cases should be referred to a paediatric neurologist for assessment.

Language disorder and Landau-Kleffner syndrome should be distinguished from elective or selective mutism. This is a condition in which the child's speech and language abilities remain intact but are not used in particular circumstances for psychosocial reasons. Typically, children with this condition speak to family members and close friends privately in the home but not to teachers or to people in public. The parents may be asked to record a private conversation with the child which will provide sufficient information to make the differential diagnosis. A family-based approach to the management of this condition is described in Chapter 12.

Intervention in cases of language disorder is usually determined by speech and language therapists. Meta-analyses show that speech and language therapy programmes delivered directly by speech and language therapists or by parents under the supervision of speech and language therapists are effective especially for expressive language disorders (Law et al., 2004; Roberts & Kaiser, 2011).

Two recent innovations in speech and language therapy, Hanen and Fast ForWord, deserve mention. With the Hanen programme, parent–child interactions are videotaped and these are used as a basis for instruction with parents. A preliminary trial showed that this is as effective as routine speech and language therapy, but more time intensive (Baxendale & Hesketh, 2003). With the Fast ForWord programme children engage in computer-based language skills training embedded in attractive computer games. A meta-analysis showed that this was not an effective treatment for language disorder (Strong et al., 2011).

Specific learning disabilities

In DSM-5 and ICD-10 specific learning disorders are distinguished from general learning problems associated with ID or traumatic brain injury and language disorder. Both systems then offer a sub-classification of specific learning disorders through reference to the specific skill in which the deficits are shown (e.g. reading, spelling or written expression and arithmetic). Diagnostic criteria for specific learning disorders are given in Table 8.7.

Epidemiology

International surveys show that between 3 and 10% of children have dyslexia (Snowling, 2013). In a major UK epidemiological study of over 1,200 9–10 year olds, Lewis et al. (1994) found that 3.9% had dyslexia, 1.3% had dyscalculia and an additional 2.3% had both arithmetic and reading difficulties. The male–female ratio for specific reading difficulties was 3:1, but with specific arithmetic difficulties and combined specific reading and arithmetic difficulties the male–female ratio was approximately 1:1. Cases were defined as having dyscalculia if their full scale IQ was above 90 and their attainment quotient was below 85. Meltzer et al. (2000) in a UK national epidemiological study of children aged 5–15 found that overall 5% of children have specific reading or spelling difficulties. The rate of these specific learning difficulties was 17% for children with ADHD, 13% for children with conduct disorder, 11% for children with emotional disorders and 4% for children without other psychological disorders.

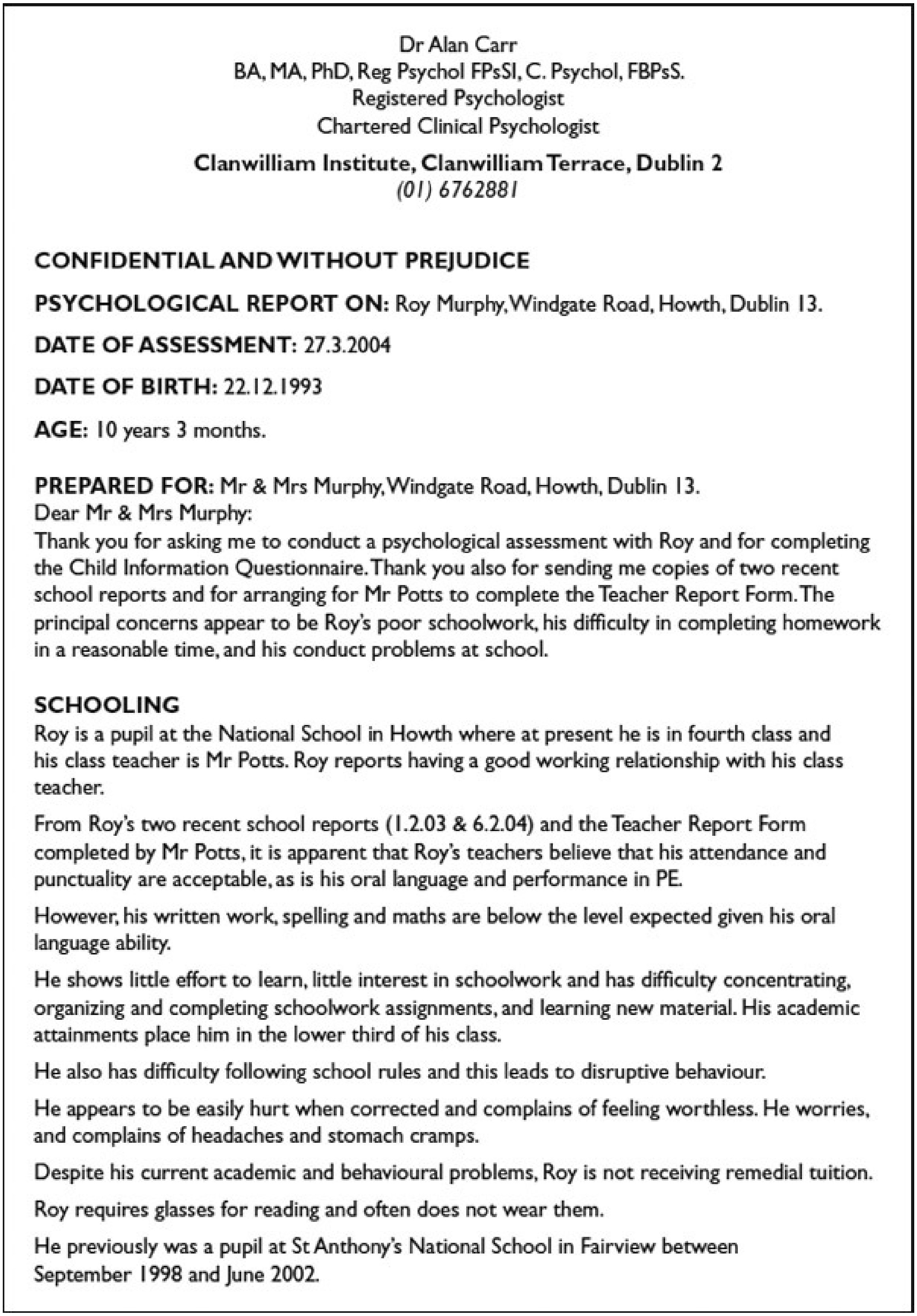
A deficit in phonological processing is a core characteristic of children with dyslexia (Snowling, 2013; Vellutino et al., 2004). Word identification problems are due to deficiencies in phonological awareness, alphabetic mapping, and phonological decoding. These deficiencies lead to problems in forming connective bonds between the spoken and written word. Current research shows that reading difficulties are not due to problems in the visual system leading to letter reversals and difficulties with word recognition as was previously thought (Vellutino et al., 2004). While the basic phonological deficit central to dyslexia commonly persists into adulthood, a proportion of dyslexic children continue to show improvements in reading skills in adulthood provided they are supported by their families, given additional tuition in school, and practise reading regularly with manageable and motivating materials. In later life, good adjustment is associated with selecting a job that fits with personal strengths and does not require a major literacy component. The development of a positive self-image and the reduction in associated anti-social behaviour was also associated with this positive environment.

Clinical features of specific reading disability

Of the three specific learning disorders (dyslexia, dyscalculia and specific spelling disorder or impaired written expression), dyslexia is probably the most important from a clinical perspective. This is because of the significance of literacy as a social skill and because of the clear link between reading problems and conduct problems. Also, far more is known about reading problems than about other specific learning difficulties. For these reasons, the main focus in this section will be on specific reading retardation or dyslexia. A typical case example of dyslexia is presented in Figure 8.1. The figure includes a full psychometric report along with guidelines for parents on helping their child with reading and spelling. Such a detailed sample report is given because specific reading disability is such a common co-morbid problem for youngsters referred for psychological consultation. (The level of detail given in the report may not always be necessary, and account should be taken of the requirements and skills of parents, teachers and others to whom the report is to be sent.)

Diagnostic criteria for specific reading disorders are presented in Table 8.7. Criteria for specific spelling disorder and specific disorder of mathematical skills from ICD-10 are also given for comparative purposes. In DSM-5 there is a single set of criteria for all learning disorders, and then the sub-type is specified depending on whether reading, spelling or arithmetic is affected. The most noteworthy feature of these criteria is that specific learning disabilities are diagnosed principally on the basis of psychoeducational assessment. Children must return attainment scores on standardized tests that fall significantly below their age and intelligence level for a diagnosis to be made.

A variety of approaches to the subtyping of reading disabilities have been taken. Rutter and Yule (1975) in the Isle of Wight studies distinguished between specific reading retardation and general reading backwardness. Specific reading retardation was defined as the co-occurrence of normal intelligence with specific severe retardation in reading skills. This was found to be associated with early specific language disability; to be three times more common in boys; and for there to be a high genetic risk of the disorder in families where male parents also suffered from specific reading difficulties. A strong association between conduct disorder and specific reading retardation was also found. In contrast, general reading backwardness was defined as reading problems co-occurring with a low IQ. It was found to be equally common in boys and girls and to be associated with mild neurological difficulties, visuo-motor skills deficits and social disadvantage.



Dr Alan Carr
BA, MA, PhD, Reg Psychol FPsSI, C. Psychol, FBPsS.
Registered Psychologist
Chartered Clinical Psychologist

Clanwilliam Institute, Clanwilliam Terrace, Dublin 2
(01) 6762881

CONFIDENTIAL AND WITHOUT PREJUDICE

PSYCHOLOGICAL REPORT ON: Roy Murphy, Windgate Road, Howth, Dublin 13.

DATE OF ASSESSMENT: 27.3.2004

DATE OF BIRTH: 22.12.1993

AGE: 10 years 3 months.

PREPARED FOR: Mr & Mrs Murphy, Windgate Road, Howth, Dublin 13.
Dear Mr & Mrs Murphy:
Thank you for asking me to conduct a psychological assessment with Roy and for completing the Child Information Questionnaire. Thank you also for sending me copies of two recent school reports and for arranging for Mr Potts to complete the Teacher Report Form. The principal concerns appear to be Roy's poor schoolwork, his difficulty in completing homework in a reasonable time, and his conduct problems at school.

SCHOOLING

Roy is a pupil at the National School in Howth where at present he is in fourth class and his class teacher is Mr Potts. Roy reports having a good working relationship with his class teacher.

From Roy's two recent school reports (1.2.03 & 6.2.04) and the Teacher Report Form completed by Mr Potts, it is apparent that Roy's teachers believe that his attendance and punctuality are acceptable, as is his oral language and performance in PE.

However, his written work, spelling and maths are below the level expected given his oral language ability.

He shows little effort to learn, little interest in schoolwork and has difficulty concentrating, organizing and completing schoolwork assignments, and learning new material. His academic attainments place him in the lower third of his class.

He also has difficulty following school rules and this leads to disruptive behaviour.

He appears to be easily hurt when corrected and complains of feeling worthless. He worries, and complains of headaches and stomach cramps.

Despite his current academic and behavioural problems, Roy is not receiving remedial tuition.

Roy requires glasses for reading and often does not wear them.

He previously was a pupil at St Anthony's National School in Fairview between September 1998 and June 2002.

DEVELOPMENT

From the information you gave me my impression is that Roy's development has been broadly within normal limits.

There are two noteworthy features in his medical history. There were peri-natal difficulties with the umbilical chord. Roy also has had asthma for a number of years.

Roy currently has no major developmental sensory, motor or social difficulties.

At home he complains of disliking school and homework and finds it difficult to complete his homework in a reasonable time.

In the past 2 years Roy has been exposed to a high level of life stress. He has moved house and changed school from an all boys school in Fairview to a mixed school in Howth. Two of his grandparents have died and his father had a heart attack.

Fortunately, Roy comes from a resourceful family, and so has been helped in a supportive way to manage this stress and deal with the challenges of the past 2 years.

From the behaviour checklists completed by his teacher and parents it may be concluded that his behaviour, while sometimes challenging, is broadly within normal limits and reflects no major psychological disturbance.

TESTS ADMINISTERED

In a single 2-hour session the following tests were administered:

- The Wechsler Intelligence Scale for Children (Fourth Edition) (WISC-IV)
- The Wechsler Individual Achievement Tests (Second Edition) (WIAT-II)

Roy co-operated well with all the testing procedures, so the obtained results may be interpreted as a valid estimate of his abilities.

INTERPRETATION OF THE TEST RESULTS

A comprehensive table of test results is appended to this report. What follows is my interpretation of these results.

Roy's full scale IQ of 101 falls at the 53rd percentile which means that out of 100 children of his age he would be more intelligent than 53 of them. This score is in the average range of general intellectual abilities (90–109).

The possible ranges are

130 +	Exceptional
120–129	High
110–119	High average
90–109	Average
80–89	Low average
70–79	Low
69 and below	Exceptionally low

On the WISC-IV, overall intellectual ability is broken down into four distinct areas:

- Verbal comprehension (which covers the skills used for language use and verbal reasoning)
- Perceptual reasoning (which includes skills such as those used by children when solving problems involving patterns and designs or architects when they design a house)
- Working memory (which refers to the capacity to concentrate, remember and manipulate sequences of symbols that have been heard but not seen)
- Processing speed (which refers to the capacity to concentrate on and rapidly manipulate sequences of symbols that have been seen but not heard)
- Compared to the other three areas, Roy obtained a particularly high score (115) for verbal comprehension which fell within the high average range (110–119).

His scores for perceptual reasoning (92) and processing speed (102) fell within the normal range (90–109).

His score for working memory fell within the low average range (80–89). His score on this dimension was 89 and it fell at the 23rd percentile. Thus, he would have a less well-developed working memory than 23 of his peers. This is unfortunate, since a well-developed working memory is one of the core abilities required for developing reading skills.

On the WIAT-II attainments in four areas were assessed:

- Oral language (including listening comprehension and oral expression)
- Reading (including word reading, reading comprehension and pseudoword decoding)
- Written language (including spelling and written expression)
- Mathematics (including mathematical reasoning and numerical operations).

Roy's oral language score (81) fell at the 10th percentile. Thus, compared to 100 boys of his own age, his language skills would be better developed than only 10 of them. Roy's composite language score and both his listening comprehension and oral expression scores fell within the low average range (80–89).

Roy's reading score (75) fell at the 5th percentile. Thus, compared to 100 boys of his own age, his reading skills would be better developed than only 5 of them. Roy's composite reading score and his word reading, reading comprehension and pseudoword decoding scores fell within the low range (70–79).

Roy's written language score (82) fell at the 12th percentile. Thus, compared to 100 boys of his own age, his written language skills would be better developed than only 12 of them. Roy's composite written language score and both his spelling and written expression scores fell within the low average range (80–89).

Roy's mathematics score (96) fell at the 39th percentile. Thus, compared to 100 boys of his own age his mathematical skills would be better developed than only 39 of them. Roy's composite mathematics score and both his mathematical reasoning and numerical operations scores fell within the normal range (90–109).

ANALYSIS OF ATTAINMENT AND STUDY SKILLS PROBLEMS AND STRENGTHS

Most of Roy's reading errors were with large or irregular words and involved refusals and substitutions. With substitutions there was a tendency to phonetically decode the first few letters of each word and then guess at the remainder. In other cases Roy substituted words that were semantically plausible.

Many of the spelling errors involved spelling irregular words phonetically. Roy needs to learn rules for spelling irregular words.

Roy read at a moderate speed, but mispronounced many words and often was unclear about the meaning of the passage.

In a free writing assignment Roy wrote in legible, but untidy, printed script. The ideas were logically and coherently organized, but his spelling difficulties peppered the whole assignment and he worked slowly. This is consistent with the reports of his teachers that he has difficulty finishing work assignments and his parents report that he has difficulty completing homework.

With arithmetic, he showed a clear understanding of addition, subtraction, multiplication and division. However, he was unable to complete problems involving long division, long multiplication, decimals, fractions or minutes and hours.

With individual instruction, Roy showed that he was capable of understanding and completing academic assignments in a clinical setting. He also showed a capacity to learn new literacy and numeracy skills with individual instruction, provided the material was presented at a pace that matched his abilities.

However, he reported that he finds independent study and homework very difficult because he cannot sustain concentration for long periods and also because, for him, remembering material that he has read is difficult.
He finds group instruction problematic because he has difficulty keeping up with the pace at which the material is presented.

CONCLUSIONS

Roy is a 10 year old child of normal intelligence with well-developed verbal comprehension skills but who has a specific learning difficulty. The core problem is poorly developed working memory. That is, Roy's capacity to remember and process sequences of auditorally presented symbols is very poorly developed. These learning difficulties account for his problems with spelling and reading. His motivation, mood and conduct difficulties are secondary to his specific learning difficulty. These may have been exacerbated by the considerable life stress to which he has been exposed over the past two years.

Roy' ability profile (normal intelligence with a specific learning difficulty) is typical of youngsters, who like him, appear to be reasonably intelligent in conversation, but who fail to develop skills necessary for written academic work. It is also common for youngsters with this profile to become demoralized, because when they put in the same amount of effort as their peers, at school they make far less progress. They begin to avoid work and this often leads to conflict with their teachers and parents who become frustrated with their lack of motivation and progress.

PROGNOSIS

The prognosis for Roy, if he is provided with educational support, is good because of three important positive factors present in this case. First, Roy has sufficiently well-developed verbal comprehension skills to be able to understand and benefit from educational support. Second, Roy comes from a stable and supportive family. Third, Roy is attending a highly supportive school in which care has been taken to provide accurate and up-to-date information on his current status and which has not excluded him despite his academic and conduct problems. However, it is important to stress that Roy will not grow out of his specific learning difficulty. Rather, with appropriate educational support he will learn to compensate for it.

RECOMMENDATIONS

1. Roy's teachers need to be made aware of his specific learning disability.

2. Arrangements should be made for Roy to receive regular educational support or remedial tuition on an individual or small group basis. The school may wish to use this report as a basis for making an application for additional resources required for this. If state funding for remedial support cannot be arranged, private tuition may be arranged through the Association for Children and Adults with Learning Difficulties.

3. A clear routine for homework needs to be established and maintained. (Notes on this are enclosed with this report.)

4. Paired reading should be carried out at home on a regular basis. (Notes on this are enclosed with this report.)

5. Simultaneous oral spelling (SOS) should be used routinely at home as the method for learning new spellings. (Notes on this are enclosed with this report.)

6. Roy may need to be re-assessed on an annual basis if difficulties continue but especially before the Junior and Leaving Cert. examinations. Re-assessment may indicate that an application for special consideration and accommodation to be given to Roy in these exams is advisable.
If you have any further questions please contact me.

Dr Alan Carr,
BA, MA, PhD, Reg Psychol FPsSI, C. Psychol, FBPsS.
Registered Psychologist & Chartered Clinical Psychologist

Summary of psychological test results for Roy Murphy DOB 22.12.93. Age 10 y. 3 m.

Scale	Score	Percentile rank	Interpretation Under 69: exceptionally low 70–79: low 80–89: low average 90–109: average 110–119: high average 120–129: high Above 130: exceptional
Full scale IQ from WISC-IV	101	53	Full scale IQ was within the normal range (90–109)
Verbal comprehension Index from WISC-IV	115	84	Verbal comprehension was within the high average range (110–119)
Perceptual reasoning Index from WISC-IV	92	30	Perceptual reasoning was within the normal range (90–109)
Working memory from WISC-IV	89	23	Working memory was within the normal range (90–109)
Processing speed from WISC-IV	102	55	Processing speed was within the low average range (90–109)
Oral language from WIAT-II	81	10	Oral language was within the low average range (80–89)
Reading from WIAT-II	75	5	Reading was within the low range (70–79)
Written language from WIAT-II	82	12	Written language was within the low average range (80–89)
Mathematics from WIAT-II	96	39	Mathematics was within the normal range (90–109)

GUIDELINES FOR PARENTS OF CHILDREN WITH SPECIFIC LEARNING DIFFICULTIES

BE REALISTIC WITH YOUR CHILD

Be honest with your child. Don't say that there is nothing wrong. No one knows better than your child that something is wrong. Your child has a specific learning difficulty. Your child's problems with literacy and or numeracy skills are not due to laziness, disobedience or illness. They are due to a specific learning difficulty.

The core problem is that your child's apparatus for manipulating sequences of symbols (such as the sounds and shapes of letters) is not working properly. Compared to other children, it is harder for your child to recognize, remember and use sequences of symbols. This is unfortunate since most schoolwork such as reading, spelling and arithmetic involves using symbols. Children with specific learning difficulties learn symbolic material more slowly than other children. They also use different strategies just as people with colour blindness learn how to distinguish colours using special strategies.

BE REALISTIC WITH YOURSELF

Your child's difficulties are not your fault, so don't blame yourself. Specific reading difficulties are not caused by parents treating their child the wrong way. If you have become embroiled in arguments with your child about homework, reading and spelling, this is understandable. You want your child to learn and do well and you may have been frustrated by the lack of progress.

Right now there are very specific things that you can do.

- Take a positive approach to your child.
- Help your child develop a homework routine.
- Read with your child every day.
- Help your child with spellings every day.

Here are some guidelines to follow to help you do these things.

TAKE A POSITIVE APPROACH

Take a positive approach with your child when discussing learning. Let your child know that you are on his or her side. Here are some things said by parents that children told me made all the difference to them:

- *You can learn even though you have a learning difficulty. I know you can because you are bright.*
- *We'll get a routine for your homework that helps you learn and leaves time for play.*
- *We'll read together every day, for fun.*
- *We'll do some spellings every day but not too many.*
- *Remember I'm in this with you and I believe you can do well.*

HOME WORK ROUTINES

Set a fixed time and place for homework each day. Set a time when your child is not tired. Provide your child with a quiet, well-lit, warm place for doing homework. Provide a computer, dictionaries, encyclopaedias or atlases as well as pens, pencils, markers and paper if necessary.

At the outset of the homework session clarify what has to be done. Many children with specific learning difficulties have problems writing down homework off the board quickly. If this is occurring, discuss it with the teacher who will want to help resolve the problem.

Ask your child to allot a set amount of time for each topic. Some children can make work plans like this and follow through independently. If your child is like this, praise him or her. If not, help your child set up a work plan. If sticking to it is a problem, use a points system where points are earned for completing each section of the plan on time. Points may be accumulated and used to get a prize at the end of the session. Design the system so as to maximize the chances of success by breaking big tasks into small manageable tasks. If using this type of system does not reduce your child's homework time to a reasonable length, discuss the possibility of reducing your child's homework load with the teacher.

Provide help as required when your child is doing homework. If your child wants to know how to pronounce or spell a word, provide the information requested. Avoid giving a reading or spelling lesson since this will disrupt the development of independent homework skills. Set aside separate times for joint reading and spelling lessons. Guidelines for these are set out on the next page.

LISTENING TO YOUR CHILD READ. PAIRED READING.

Set aside a 10–15 minute period each day when you can read with your child. Choose a place free from distractions. Then follow the steps for paired reading set out below.

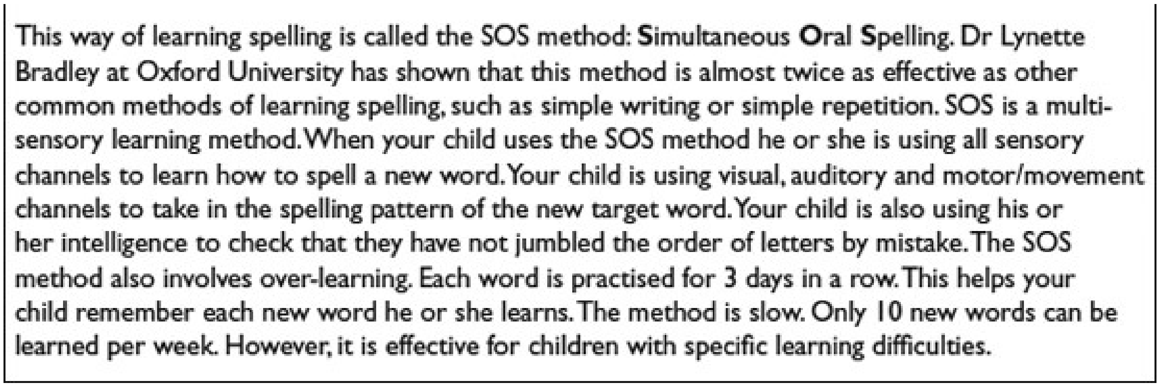
1. Ask your child to choose a book to read.
2. Sit side-by-side, so both of you can see the text.
3. Begin by reading the text together and adjust your speed and rhythm so you are both reading in time together.
4. When your child is ready to read alone, he or she should tap you on the arm. This is the signal for you to be silent and let your child read alone.
5. When your child gets a word wrong or can't read a word don't let him or her struggle for more than 5 seconds. Just tell your child what the word is. Let your child read it correctly and praise him or her for it. Don't analyse the word phonetically and try to teach your child how to spell it.
6. Don't read for more than 15 minutes. Talk with your child about the story you have read. Ask questions posed by the story. Answer any questions your child may have.
7. Be as patient as you can. Speak to your child in a quiet calm voice. Make your directions short and simple.

This method is called paired reading. Children who do paired reading with their parents show reading improvements at three times the speed of children who don't do paired reading. This conclusion was drawn from research on hundreds of children in the UK with reading problems. Paired reading allows children to read interesting material, to control the amount of help they get from parents, to be praised for success and to get as little criticism as possible. Paired reading allows parents to enjoy their children's success without the drudgery of labouring over their mistakes. Above all paired reading allows a child with a specific reading disability to experience fluent reading. This experience of fluent reading will motivate your child to put in the hard work necessary to learn how to read fluently.

HELPING YOUR CHILD LEARN SPELLINGS. SIMULTANEOUS ORAL SPELLING.

Set aside a 10-minute period each day for helping your child with spelling. Spelling lists should be short and contain no more than 5 words. The same spelling list should be used for 3 nights in a row. This means that no more than 10 new words can be learned in a week. Follow the routine described for each word.

1. Write the target word out or make it with plastic letters. Tell your child how to say the word and what it means.
2. Ask your child to copy the target word and simultaneously to say the name of each letter as it is being written.
3. Ask your child to check that each letter he or she has written is the same as each letter in the target word.
4. When your child has copied a word correctly three times using steps 2 and 3, ask your child to look at the target word for a few seconds, cover up the target word, and write it from memory while simultaneously saying the name of each letter as it is being written.
5. Ask your child to check that each letter he or she has written is the same as each letter in the target word. When your child has copied a word correctly three times from memory, move on to learning the next word in the spelling list.
6. Make sure your child practises each word following this routine for 3 consecutive daily sessions.



This way of learning spelling is called the SOS method: **S**imultaneous **O**ral **S**pelling. Dr Lynette Bradley at Oxford University has shown that this method is almost twice as effective as other common methods of learning spelling, such as simple writing or simple repetition. SOS is a multi-sensory learning method. When your child uses the SOS method he or she is using all sensory channels to learn how to spell a new word. Your child is using visual, auditory and motor/movement channels to take in the spelling pattern of the new target word. Your child is also using his or her intelligence to check that they have not jumbled the order of letters by mistake. The SOS method also involves over-learning. Each word is practised for 3 days in a row. This helps your child remember each new word he or she learns. The method is slow. Only 10 new words can be learned per week. However, it is effective for children with specific learning difficulties.

Figure 8.1 A report on a case of specific reading disorder (or dyslexia)

Snowling (2013) has provided evidence for distinguishing between dyslexia and reading comprehension impairment. The predominant cognitive deficit in dyslexia is phonological (i.e. difficulty processing of speech sounds in words). In contrast, children with reading comprehension impairment can decode and spell words accurately but have problems understanding the meaning of what they read. Children with a history of language disorder often have pervasive reading disorders with both processes affected. Different interventions are required for dyslexia and reading comprehension impairment.

For dyslexia, effective interventions involve training in letter sounds, phoneme awareness, and linking letters and phonemes through writing and reading from texts at the appropriate level to reinforce emergent skills. In contrast, for poor comprehension training in oral language skills particularly vocabulary is required.

Aetiology

The aetiology of specific reading retardation or dyslexia may be understood within the context of theories about the development of reading skills. Traditionally two theories about the development of reading skills have been proposed. *Phonic theory* argues that in order to read, children must first learn the sounds associated with letters, and then use these phonic building blocks to read and spell whole words (Ramus et al., 2003). The argument is that children build up the word *cat* from the three sounds associated with the letters *c*, *a* and *t*. In contrast, *whole language theory* argues that children learn to recognize whole words rather than piecing together individual letter or sounds. According to whole language theory, the sound of unfamiliar words are learned by guessing from the meaning of the context within which they occur and obtaining feedback from a teacher (Goodman, 1976). So the child may assume that the word *cat* sounds like *cat* because it occurs under the picture of a cat or in a sentence that says *the dog chased the cat.*

Phonological theory gave rise to the phonic method of teaching reading which requires the child to learn corresponding sounds for each letter. The whole language theory spawned a variety of contextual teaching methods, for example the *look and say* method in which the child is taught to recognize whole words in context. Neither theory has received wholesale support from experimental studies of reading or studies of children with reading disabilities (Snowling, 1996). However, it does appear that children use both phonic-decoding strategies and whole-language contextual strategies, depending upon their developmental level of reading skill, their familiarity with the material and the costs and benefits of accurate performance.

The theory of reading which has received widest support argues that children's perception of rhyme and alliteration is the most important precursor of reading skills (Snowling, 1996). This position entails the view that children may take a word like *cat* and break it into an onset: *c*, and a rhyme: *at*. They can use this skill to help them read unfamiliar words like *mat*, *sat* or *pat*. This involves an awareness of the similar sounds (phonological similarity) of the rhyming words and also an awareness of the similar appearance (orthographic similarity) of the words that rhyme. A large body of evidence shows that children who develop the skills of recognizing phonological and orthographic similarities at an early age become good readers and those that do not develop reading problems.

A number of conclusions may be drawn from research on the role of genetic, neurobiological and social factors in the aetiology of dyslexia (Snowling & Hulme, 2008). Genetic factors contribute to the aetiology of dyslexia, with more severe forms of dyslexia and dyslexia in individuals with higher IQs tending to be more heritable. A consensus on candidate genes and related structural brain abnormalities associated with dyslexia has not yet been reached. There is emerging evidence that dyslexia is associated with reduced activation in the left hemisphere temporo-parietal cortex when reading and intervention may ameliorate this deficit. Reading difficulties are more common in children of low socio-economic status, from large families, where there are few literacy-based activities within the home.

Assessment

With specific reading difficulties and other specific learning problems, it is essential that there be close liaison between the clinical psychologist, the child's teacher, the parents, the child and other pertinent professionals (especially educational and school psychologists if they are involved). Routine interviews with parents and teachers should be conducted; copies of past school attainment reports should be obtained; and behaviour checklists, such as the those from the ASEBA or SDQ assessment systems (listed in Table 4.1), completed by both parents and teachers. Routine screening for visual or hearing impairment should also be conducted. General principles for psychometric assessment of children's abilities are discussed in a later section of this chapter. Here, psychometric methods for assessing specific reading difficulties will be dealt with.

To diagnose specific learning disabilities, assess attainments with standardized tests such as up-to-date editions of the WIAT or WRAT (listed in Table 8.6) and intelligence with tests such as the WISC or BAS (listed in Table 8.2). The attainment-ability score discrepancy method or observed-predicted attainment score discrepancy method may be used to evaluate the presence of a specific learning difficulty. With the attainment-ability score discrepancy method, if any attainment score falls 1.5 standard deviations (about 22 points) below the full scale IQ score, then a specific learning difficulty in that area may be diagnosed. The observed-predicted attainment score method may be used if there is a table in the manual of the attainment or ability test which gives expected attainment scores associated with IQ level. From such tables predicted attainment levels may be determined. The statistical significance of discrepancies between predicted and observed attainment levels may be evaluated with reference to tables of such discrepancies given in the test manual. For both procedures, there is an assumption that the child had co-operated well with testing procedures and has had adequate opportunity to develop reading skills.

A further issue for assessment, once the presence of a specific learning difficulty has been established, is the pattern of specific cognitive deficits which underpins it and the pattern of specific strengths that may be tapped in a remedial reading programme. This pattern of cognitive strengths and weaknesses may be determined by inspecting the score scatter of the ability test. In Figure 8.1, in the section on interpretation of test results, an example of this type of analysis is given with respect to the WISC-IV. In Table 8.8 an approach to WISC-IV interpretation is given.

Table 8.8 A procedure for interpreting the WISC-IV

Step	*Procedures*
1. Interpret Full Scale IQ (FSIQ)	• Assign the FSIQ score to an ability level (e.g. high average) and give a percentile rank. • If the FSIQ is below 70, consider general intellectual disability as a hypothesis deserving further testing. • If the FSIQ is above 70 and there are attainment problems, consider specific learning disorder, motivational or situational problems in school, or sensory difficulties as hypotheses deserving further testing. • If the difference between the highest and lowest scores of the four indices exceeds 23 points, interpret FSIQ cautiously as the complete group of sub-tests that make up the FSIQ may not be a reliable and valid index of a unitary construct of overall cognitive ability. • Assign verbal comprehension (VCI), perceptual reasoning (PRI), working memory (WMI) and processing speed (PSI) index scores to ability levels and give them percentile ranks. • Differences between index scores of about 10 points may be interpreted as significant. (Check the test manual and Flanagan & Kaufman (2009) for exact differences associated with specific age bands and specific comparisons.)

2. Interpret the scatter of the four indices	• If there are no significant differences between the four index scores and the FSIQ is below 70, consider general intellectual disability as a hypothesis deserving further testing. • If there are attainment problems, a FSIQ above 70 and significant differences between index scores, consider specific learning disorder, ADHD, traumatic brain injury, ASD, sensory or motor disabilities, or situational influences on test behaviour or school performance as hypotheses deserving further testing. • Within each of the four indices, if the difference between the highest and lowest sub-test score exceeds 5 points, interpret that index cautiously as it may not be a reliable and valid measure of the unitary ability assessed by the index.
3. Interpret low PSI profile	• If PSI is lower than the other three indices, consider and test the following hypotheses: motor disability, head injury, or specific learning disorder with written expression being the key area affected.
4. Interpret low WMI profile	• If WMI is lower than the other three indices, consider and test the following hypothesis: specific learning disorder with reading being the key area affected.
5. Interpret low VCI profile	• If VCI is lower than the other three indices, consider and test the following hypothesis: language disorder.
6. Interpret low PRI profile	• If PRI is lower than the other three indices, consider and test the following hypothesis: specific learning disorder with mathematics being the key area affected.
7. Interpret high PRI profile	• If PRI is higher than the other three indices consider and test the following hypothesis: autism spectrum disorder.
8. Interpret low PSI and WMI profile	• If PSI and WMI are both lower than the other two indices consider and test the following hypothesis: ADHD.
9. Interpret strengths from index and sub-test scatter	• Where indices are about 10 or more points above FSIQ interpret this as indicating strengths in that area. • Where sub-test scores are 3 or more points above the mean sub-test score for the profile, interpret these as areas of strength.

Note: Based on information in the WISC-IV manual and Sattler (2008) and Flanagan and Kaufman (2009).

Where a very brief screening test is required, prior to a full assessment, Fawcett and Nicolson (2004a, 2004b; Nicolson & Fawcett, 2004) have developed brief dyslexia screening tests for pre-schoolers, primary school children and adolescents which detect the presence of cognitive deficits associated with specific learning difficulties.

Intervention

It is essential that remediation programmes for children with specific reading difficulties be based on a thorough assessment of the child's abilities and the potential resources within the family, the school and the wider professional network for remediating the child's reading difficulties. All programmes for children with specific reading disability should be highly *structured* with material increasing in difficulty as the child progresses. Material should be presented in a *sequence* and there should be a *cumulative* acquisition of reading and spelling skills (Duff & Clarke, 2011; Reid, 2009; Snowling, 2013).

Remediation tutorial programmes that include both training in reading passages of text and the use of exercises to improve phonic awareness (such as rhymes and alliteration) have better outcomes in terms of teaching decoding and spelling skills compared with methods that focus on the use of contextual cues and meaning-based strategies (Snowling, 1996).

Paired reading. Parental involvement in brief periods of daily paired reading is a highly effective preventative and treatment strategy for children with reading difficulties (Sénéchal & Young, 2008; Topping, 1986; Topping & Lindsay, 1992). With this strategy, parents are trained to sit with their children and simultaneously read with them until the child is ready to read independently. During this phase, the child's errors are corrected by the parent modelling correct pronunciation of the appropriate word. Once children are ready to read independently, they use a non-verbal signal to indicate that parents should be silent and listen to them reading unaided. When children encounter errors they use a non-verbal signal to instruct parents to model the correct pronunciation of the difficult word for them. They then proceed with independent reading. The paired reading process is a packaged set of routines to help parents provide what Vygotsky (1962) referred to as scaffolding to facilitate the development of the child's emergent reading skills.

Simultaneous oral spelling. Multi-sensory approaches to spelling have been found to be effective for children with specific reading difficulties and of these simultaneous oral spelling is particularly useful (Bradley, 1981; Thompson, 2009). To learn a specific word, the child is first given a model word to copy. The child copies the model and concurrently says each letter aloud as it is copied so that visual, auditory and kinaesthetic modalities are used simultaneously to learn the spelling. After each trial, the child is required to check, letter by letter, what he or she has written against the model word. After three consecutive correct trials the procedure is repeated, but the model word is covered once it has been inspected and is written from memory. This procedure is followed with small groups of words which are practised for three consecutive days, after which most children find the spellings have been learned. This multi-sensory approach may be used by children in conjunction with their parents, in working through a typical primary school spelling curriculum. However, in my clinical experience it works best when small groups of spellings are targeted each week and children are allowed to work at a pace which leads to the greatest rate of success. It may be coupled with a reward chart to maintain motivation. Notes for parents on paired reading and simultaneous oral spelling are contained in Figure 8.1.

Study skills. Adolescents with specific reading difficulties may, to some degree, offset the handicap entailed by their reading difficulties by developing good study skills. These include time management, active reading and mapping. With time management the three main skills are making a calendar of time slots; chunking work material, prioritizing chunks and slotting them into the calendar at appropriate times; and troubleshooting when difficulties occur while implementing the study plan. In making a calendar of time slots, youngsters should be encouraged to take account of whether they work best in the morning or the evening, their span of concentration (which for most teenagers is about 50 minutes), and their work and leisure commitments. In chunking and prioritizing work, account should be taken of how much material may reasonably be covered in a 50-minute slot, which topics can be studied for multiple consecutive periods and which are best studied for a single period sandwiched in between other topics. When troubleshooting difficulties, the overall goal of the study plan should always be given priority and the need for regular reinforcement and leisure activities which the adolescent should construe as being his or her own reward for completing part of the study plan. Inevitably, parts of the plan will go awry. Improvising, rescheduling and avoiding catastrophizing are key troubleshooting skills. Challenging catastrophic thoughts is discussed in Chapter 12, where anxiety disorders are considered.

Active reading involves following a routine to actively extract meaning from texts and remember extracted points as coherent knowledge structures. The first step is to scan the text, noting the headings, and reading the overview and summary if these are provided. In light of this scanning process, the second step is to list the main questions that may be answered by a detailed reading of the chapter. The third step is to read each section with a question in mind and at the end of the section write down the answer to the question that has arisen from reading the section. When this process has been completed for all sections, the fourth step is to re-read the questions and answers that have been composed a couple of times. Then with the answers covered, the questions should be asked once more and the answers recited from memory. The next step involves reviewing the accuracy of these answers. The final stage is try to draw out a visuo-spatial representation of the material and post this *cognitive map* on the wall of the study for frequent inspection.

- Step 1. Scan
- Step 2. Question
- Step 3. Read and write answers
- Step 4. Reread questions and answers

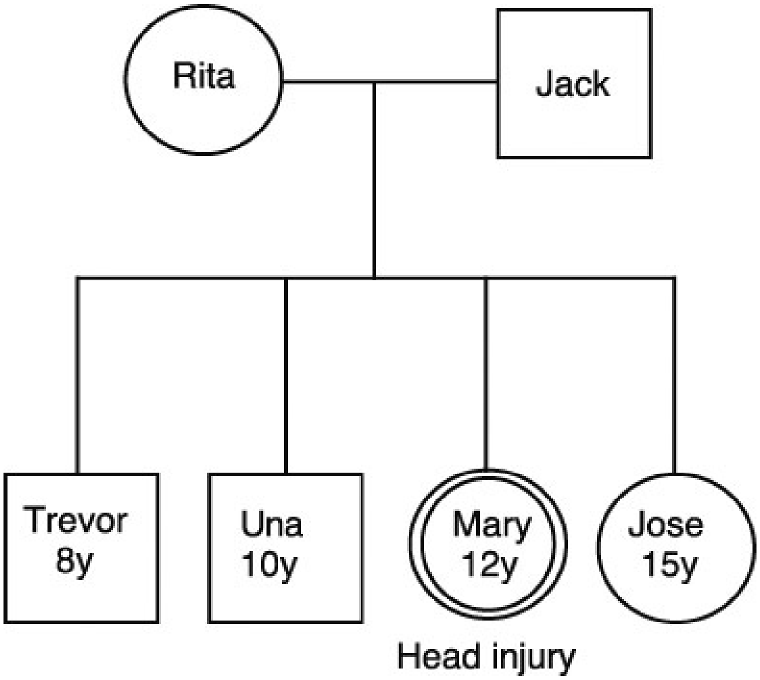
- Step 5. Recite answers to questions
- Step 6. Review accuracy of answers
- Step 7. Map new knowledge and post it on the wall

Psychometric reports for specific learning difficulties. The general principles set out in Chapter 5 apply to writing reports to parents and members of the professional network about specific learning difficulties. However, it is often necessary to offer quite detailed and complex feedback to non-specialists and so writing psychometric reports requires additional skills. An example of a routine psychometric report for a child with a specific learning difficulty is presented in Figure 8.1. Also included in this figure are some guidelines for parents on helping their children with literacy skills.

Traumatic brain injury

Traumatic brain injury (TBI) is a brain insult acquired as a result of an external mechanical force (Harris, 2008; Middleton, 2001; Snow & Hooper, 1994; Wade et al., 2009). TBI is a subset of acquired brain injury. This broader category includes insults acquired from non-traumatic causes such as anoxia or tumours. Many children who sustain TBI develop transient or chronic learning difficulties. Commonly these learning difficulties are associated with behavioural problems. An example of such a case is presented in Box 8.3. Learning difficulties arising from TBI typically involve problems in remembering new information or recalling previously learned information. They are classified in DSM-5 as major or mild neurocognitive disorder due to traumatic brain injury. Diagnostic criteria are presented in Table 8.9.

Box 8.3 A case of traumatic brain injury



Mary, aged 12, was referred for routine psychological assessment a month following involvement in a road traffic accident in which she sustained a closed head injury. Her GCS at admission was 6 and at 24 hours was 9. She regained full consciousness within 24 hours. An MRI scan confirmed the presence of bilateral insults to the temporal and frontal lobes. Her EEG was within normal limits and there was no evidence of seizure activity.

The central referral question concerned her prognosis in terms of attainment problems and behavioural adjustment which had been within normal limits prior to the accident.

Her developmental history, as given by her mother, was unremarkable with her development on sensorimotor, language, cognitive and social parameters falling broadly within the normal range. An inspection of her school reports showed that she was in the top 10% of her mixed ability class. Samples of her schoolwork and this information suggested that her pre-morbid functioning was probably in the high average range of general intellectual abilities.

The Child Behaviour Checklist was completed by her mother during the fourth week following the trauma. Her scores on the anxiety/depression and attention problem subscales fell within the clinical range.

She co-operated well with psychological assessment procedures; exhibited no impairment of hearing or sight and was on no medication, so the results of the psychological assessment were interpreted as a valid description of her level of functioning a month following the trauma.

The WISC-IV and the WIAT-II were administered along with the Wide Range Assessment of Memory and Learning. She returned a full scale IQ which fell at the lower end of the normal range. Her verbal skills, which were in the high average range, were significantly less impaired than her working memory and processing speed which fell in the low average range. Both her verbal and visual memory showed significant impairment. She returned language and reading quotients which fell within the normal range and written language and mathematics quotient which fell within the low average range.

Her parents and teachers were informed of her psychological status and it was mentioned that gradual recovery over a 12-month period could be expected. Biannual reassessments for 2 years were arranged. Family work focusing on helping the parents and siblings to support Mary during her recovery was arranged. Meetings were held with her parents and teachers to plan her reintroduction into school.

Table 8.9 Diagnostic criteria for learning disorders caused by traumatic brain injury

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DSM-5

Neurocognitive disorder due to head trauma

Major neurocognitive disorder

A. Evidence of modest cognitive decline from a previous level of performance in one or more cognitive domains (complex attention, executive function, learning and memory, language, perceptual motor, or social cognition) based on:
   1. Concern of the individual, a knowledgeable informant, or the clinician that there has been a significant decline in cognitive function; and
   2. A substantial impairment in cognitive performance, preferably documented by standardized neuropsychological testing or, in its absence, another quantified clinical assessment.

B. The cognitive deficits interfere with independence in everyday activities (i.e., at a minimum, requiring assistance with complex instrumental activities of daily living such as paying bills or managing medications).

C. The deficits do not occur exclusively in the context of a delirium.

D. The cognitive deficits are not better explained by another mental disorder (e.g., major depressive disorder, schizophrenia).

(For specifiers, see DSM-5, p. 603.)

Mild neurocognitive disorder

A. Evidence of modest cognitive decline from a previous level of performance in one or more cognitive domains (complex attention, executive function, learning and memory, language, perceptual-motor, or social cognition) based on:
   1. Concern of the individual, a knowledgeable informant, or the clinician that there has been a mild decline in cognitive function; and
   2. A modest impairment in cognitive performance, preferably documented by standardized neuropsychological testing or, in its absence, another quantified clinical assessment.

B. The cognitive deficits do not interfere with capacity for independence in everyday activities (i.e., complex instrumental activities of daily living such as paying bills or managing medications are preserved, but greater effort, compensatory strategies, or accommodation may be required).

C. The cognitive deficits do not occur exclusively in the context of a delirium.

D. The cognitive deficits are not better explained by another mental disorder (e.g., major depressive disorder, schizophrenia).

(For specifiers, see DSM-5, pp. 605–606.)

Major or mild neurocognitive disorder due to traumatic brain injury

A. The criteria are met for major of mild neurocognitive disorder.

B. There is evidence of a traumatic brain injury – that is, an impact to the head or other mechanisms of rapid movement or displacement of the brain within the skull, with one or more of the following:

1. Loss of consciousness.
2. Posttraumatic amnesia.
3. Disorientation and confusion.
4. Neurological signs (e.g., neuroimaging demonstrating injury; a new onset of seizures; a marked worsening of a preexisting seizure disorder; visual field cuts; anosmia; hemiparesis).

C. The neurocognitive disorder presents immediately after the occurrence of the traumatic brain injury or immediately after recovery of consciousness and persists past the acute post-injury period.

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The main role of the clinical psychologist in these cases is to clearly document the child's competencies and disabilities and track these over time while offering support and guidance to the children, their parents and their teachers during the recovery process. This functional approach to acquired learning difficulties is not concerned with predicting particular brain lesions from patterns of psychometric test findings in conjunction with other clinical data or in tracking or predicting covariation in brain-behaviour relationships over time. Such skills require advanced training in neuropsychology (Davis, 2011). Where detailed evaluation of brain-behaviour linkages are required, a referral to a specialist child clinical neuropsychologist should be made.

Epidemiology

A number of conclusions may be drawn from literature on the epidemiology of traumatic brain injury (Harris, 2008; Middleton, 2001; Snow & Hooper, 1994; Wade et al., 2009).

The incidence of traumatic brain injury is twice as common among adolescents as pre-adolescents and twice as common among boys as girls. For children under 14 the incidence is approximately 200/100,000 per annum. For adolescents 14–19 years old the incidence is 550/100,000. Children with emotional, behavioural and learning difficulties from low socio-economic status groups are at greater risk for traumatic brain injury and children who have sustained TBI are more likely to sustain a second TBI. TBI rates among 0–18 year olds are highest in pre-schoolers and older adolescents. Falls (among pre-schoolers) and road traffic accidents (among adolescents) are the principal causes of head injuries.

TBI is the most common cause of death for children under 15. However, about 90% of paediatric TBI is mild with Glasgow Coma Scale (GCS, Teasdale & Jennett, 1974) scores in the 13–15 range (Kirkwood & Yeates, 2012).

A distinction is made between the primary and secondary neuropathological and pathophysiological effects of TBI. Primary effects are those arising from the trauma itself such as skull fractures, contusions and haemorrhages. Secondary effects occur following the trauma and include brain swelling, cerebral oedema, elevated intracranial pressure, hypoxia and seizures.

TBI may lead to acute medical complications including seizures, intracranial infections, pain, post-concussive symptoms such as dizziness and sleep problems, loss of balance, and problems with vision, hearing, taste and smell.

While TBI leads to cognitive and social adjustment problems, improvement in these areas occurs over time (Johnson et al., 2009). Most of the limited amount of longitudinal data come from studies of non-penetrative head injuries. Different recovery patterns are shown by cases with mild and severe traumatic head injury. Severe TBI is characterized by GCS scores of 8 or less, the occurrence of post-traumatic amnesia for more than 7 days as assessed objectively by an instrument such as the Children's Orientation and Amnesia Test (Ewing-Cobbs et al., 1990), and evidence of a mass lesion from a CT or MRI scan. These indices are described in more detail shortly.

Post-traumatic seizures are more common in cases of severe TBI. In comparison with mild cases, children with severe TBI tend to show greater deficits in most areas of cognitive functioning including memory, attention, executive function, visuo-spatial abilities and verbal abilities. But in comparison with mild cases, severe cases also show greater recovery of cognitive functioning, most of which occurs within 12 months of the injury. However, children with TBI continue to show gradual recovery of cognitive functioning for up to 5 years following injury and possibly for longer. Recovery of cognitive functioning is associated with a gradual improvement in academic functioning. In comparison with mild cases, severe cases show pronounced difficulties in adaptive behaviour and psychological adjustment and available evidence shows that these problems persist for 1 to 2 years following injury, although they may persist for longer. Labile, disinhibited, aggressive, apathetic and paranoid are the principal types of personality changes specified. The outcome in cases of TBI is related to pre-morbid adjustment, severity of injury, intracranial pressure, rate of recovery of specific functions, presence of seizures and psychosocial adversity (Goodman, 2002; Johnson et al., 2009; Middleton, 2001; Pericall & Taylor, 2014; Snow & Hooper, 1994; Wade et al., 2009).

Outcome is unrelated to the gender of the child. Better pre-morbid adjustment is associated with a better outcome. The prognosis is best for cases of mild TBI, and the more rapidly a function re-emerges following injury the better the prognosis for that function. The presence of high intracranial pressure, seizures and psychosocial adversity increases the risk of long-term psychological adjustment difficulties. Mesial pre-frontal lesions and temporal lesions have been associated with post-injury obsessive-compulsive symptoms; in contrast, orbital frontal lesions have been associated with new onset of ADHD symptoms at 6 months post-TBI (Johnson et al., 2009).

Neurological development and traumatic brain injury

The psychological sequelae of head injury are usefully considered within the context of available evidence on the two-stage development of the central nervous system (CNS; Pinel, 2014; Rutter & Rutter, 1993). In the first phase of development there is a proliferation of nerve cells which migrate to their final destination within the brain or spinal cord. Concurrently there is an elaboration of connections between neurons marked by an increase in the number of synapses and of neurotransmitters to permit the transmission of signals across these synapses or neural junctions. By the end of infancy this process gives way to the second phase, where half of the nerve cells selectively die off so that only specific networks of connections between nerve cells are preserved. This subtractive second phase is best thought of as a fine-tuning process, during which specific neural networks become associated with specific functions. This fine-tuning process is to some degree dependent upon sensory input, hence the importance of early infant sensory and intellectual stimulation. Such stimulation in part determines the nature and complexity of preserved neural networks and has implications for which nerve cells die off. The second stage is not complete until mid-adolescence.

This model of brain development allows coherent explanations to be offered for clinically observed patterns of recovery from brain damage at different ages. Three distinct patterns have been clinically identified, although carefully controlled longitudinal studies have not yet been conducted to verify these clinical observations. Each pattern is associated with different stages of the lifecycle. The acquisition of specific skills may appear normal when unilateral or bilateral brain damage occurs pre-natally or during infancy. However, overall intelligence may be somewhat impaired. From the toddler period through to mid-adolescence, recovery from bilateral brain damage may be as poor as in adults but recovery of specific skills following unilateral damage may be more pronounced than for adults. After mid-adolescence, lasting skills deficits result from both unilateral and bilateral brain damage. We may hypothesize that the lack of specific skills deficits associated with brain damage in infancy may be due to the capacity of the CNS for reorganization during this period. However, once the subtractive second phase begins in toddlerhood, only some degree of reorganization (associated with unilateral damage) becomes possible.

Assessment

When a child is referred for psychological consultation following traumatic head injury, some basic referral questions may be answered by most clinical psychologists without specialist neuropsychological training. For example, those that inquire about the general prognosis in terms of academic attainment, functional limitations and behavioural problems, and those that require the development of programmes for the management of the sequelae of traumatic brain injury. In routine clinical psychology practice, the framework presented in Figure 8.2 may be used as a guide to assessing factors that may have implications for prognosis and treatment.

In the practice of specialist neuropsychology, more complex models which include a greater range of variables are required as a basis for answering highly specific question about current and probable future brain-behaviour relationships (Davis, 2011). Where answers to such specific questions are required, referral to a specialist neuropsychologist should be made. What follows are some comments on the assessment of a number of the variables listed in Figure 8.2. Variables included in Figure 8.2 that have already been discussed in Chapter 4 will not be considered in detail here.

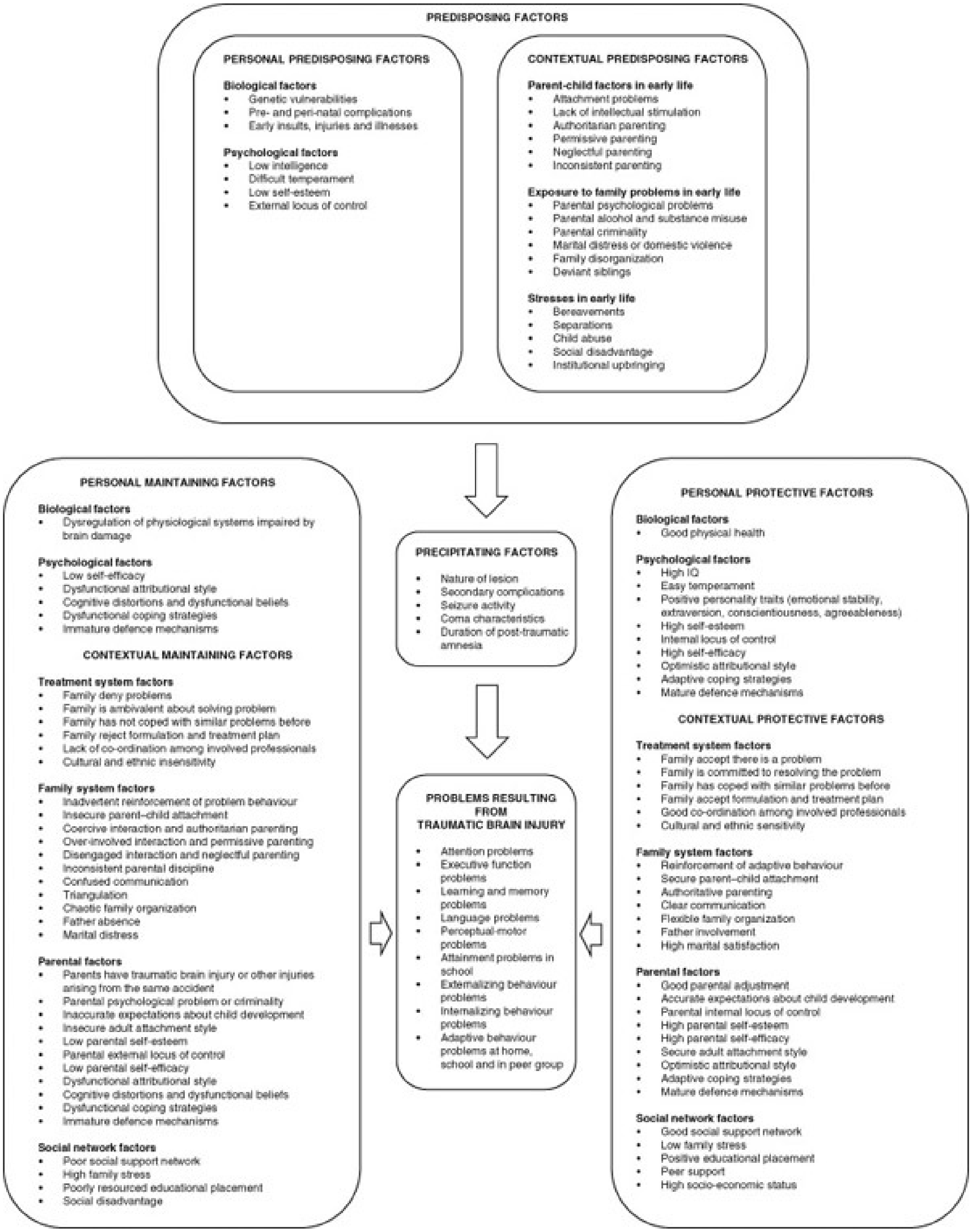

Figure 8.2 A framework for assessment of adjustment problems in cases of traumatic brain injury

Biological indices of functioning immediately following traumatic brain injury. Usually a full medical assessment will have been carried out immediately following injury. Interpreting this medical information is an important first step in the process of psychological assessment. Information should be abstracted from the medical notes on the following items:

- nature of the lesion and supporting results from skull X-rays, CT scans and MRI scans
- secondary complications such as raised intracranial pressure, hypoxia, ischemia,

cerebral oedema, haemorrhage, cerebral atrophy or enlargement of ventricles
- seizure activity and supporting EEG results along with information about the patient's anticonvulsant medication
- coma characteristics including the initial and 24-hour GCS rating and the duration of coma
- duration of traumatic amnesia.

Over 90% of cases of paediatric traumatic brain damage are non-penetrative closed-head injuries (Snow & Hooper, 1994; Wade et al., 2009). That is, the skull is not fractured, or if fracturing occurs it is linear rather than depressed. Such injuries, in contrast to penetrative injuries, tend to be associated with diffuse rather than focal lesions. However, the results of skull X-rays, CT scans and MRI scans may be used to draw conclusions about the location and extent of the structural lesions. A neuroanatomical atlas may be consulted to aid interpretation of such report (e.g. Haines, 2012).

Secondary neuronal damage may occur due to hypoxia associated with poorly oxygenated blood supply or ischemia where obstructed blood flow has occurred. Cerebral oedema (or brain swelling) or haemorrhaging may lead to increased intracranial pressure and further brain damage. Cerebral atrophy and enlargement of ventricles may also occur secondary to traumatic brain injury.

Immediate or delayed seizure activity may occur following traumatic brain injury, with such activity being more common in cases of severe injury. However, it is worth keeping in mind that seizure activity in some cases may precede, or indeed, precipitate events leading to traumatic brain injury. Where EEG results indicate that seizure activity or post-traumatic epilepsy is present, it is important to determine if the child is taking anticonvulsant medication. The possible sedative effects of such medication should be taken into account when conducting and interpreting psychological tests.

Patients who sustain head injuries are typically rated upon admission and 24 hours later on GCS. On the GCS, the quality of the child's motor response to a verbal command or physical stimulus, verbal response to a question, and the presence or absence of eye-opening responses to speech or touch are rated on ordinal scales and the results summed to give a score which may range from 3 which indicates a profound coma to 15 which reflects an alert state (Teasdale & Jennnett, 1974). Ratings of 8 or less indicate a profound coma and a rating of 8 or less is taken to indicate the presence of severe TBI.

The duration of post-traumatic anterograde amnesia (PTA) is typically timed from the point at which the person regains consciousness following coma and is characterized by an inability to remember new information. The period ends when the person's capacity to recall some recent events is restored, but some retrograde amnesia (loss of memory prior to the injury) may remain. The Children's Orientation and Amnesia Test (COAT; Ewing-Cobbs et al., 1990) is a useful method for rating recovery from amnesia.

Problems resulting from traumatic brain injury. Following traumatic brain injury, problems with cognitive functioning, academic attainment and behavioural adjustment may occur. The youngster's status in each of these domains may be assessed using appropriate psychometric instruments. Cognitive functioning should be assessed with a battery of tests which cover memory and attention, executive function, non-verbal, sensorimotor abilities, and verbal and language abilities. Comprehensive neuropsychological test batteries are listed in Table 8.10. It may also be useful to administer standardized attainment tests such as those listed in Table 8.6. Behavioural problems may be assessed using the ASEBA or SDQ checklists (listed in Table 4.1 in Chapter 4), and competencies may be assessed using a broad social functioning scale such as an up-to-date edition of the Vineland Adaptive Behaviour Scale (listed in Table 8.3).

Predisposing, maintaining and protective factors. Routine interviewing and assessment procedures described in Chapter 4 may be used to assess predisposing, maintaining and protective factors all of which have implications for the child's recovery. The child's pre-morbid adjustment, parental coping resources and social disadvantage should be explored in some detail in the family interview. The resources available to the school, particularly the possibility of some individual or small group tuition, along with the capacity of the school to work closely with the psychologist and other member of the assessment team in implementing programmes to help the child manage the sequelae of traumatic brain injury are important areas to probe in school-based interviews.

Intervention

Routine intervention with the child, family and school in cases of traumatic brain injury should include

- psychoeducation in which prognostic information is provided
- periodic reassessment where recovery is regularly tracked
- parent and child counselling on the management of memory problems, seizure activity, and the emotional and behavioural sequelae of traumatic brain injury.

Table 8.10 Neuropsychological assessment batteries for use with children

Instrument	*Comments*
Wechsler, D. (2004). *Wechsler Intelligence Scale for Children – Fourth Edition, Integrated (WISC-IV Integrated).* San Antonio,	The WISC-IV integrated is an extended version of the WISC-IV which permits the use of 15 process sub-tests to further understand cognitive processes involved in performance on core WISC-IV sub-tests in four domains (verbal comprehension, perceptual reasoning,

TX: Psychological Corporation.	working memory and processing speed).
Korkman, M., Kirk, U., & Kemp, S. L. (2007a). *Developmental NEuroPSYchological Assessment – Second Edition (NEPSY-II)*. San Antonio, TX: Psychological Corporation.	NEPSY-II is the second edition of the Developmental NEuroPSYchological Assessment test battery. Assesses neuropsychological development in children ages 3–16 years. Contains 34 tests and four delayed-tasks tests that assess six functional domains: attention/executive function; language; memory and learning; sensorimotor functioning; social perception; and visuospatial processing. Subsets of tests may be used to address specific referral questions.
Delis, D., Kaplan, E., & Kramer, J. (2001). *Delis–Kaplan Executive Function System (D-KEFS)*. San Antonio, TX: Psychological Corporation.	Contains nine tests which assess a variety of verbal and non-verbal executive functions in individuals aged 8–89 years.

General prognostic information may be offered on the basis of the review of longitudinal outcome studies summarized earlier in this chapter. For more specific prognostic information, a specialist neuropsychological consultation should be arranged.

On the basis of a functional analysis of specific situations at home and at school, in which children show particularly disruptive cognitive, behavioural and emotional problems and medical difficulties such as seizure activity, individualized programmes may be developed. These programmes may be developed on the basis of the principles set out in the neuropsychological rehabilitation literature (e.g. Davis, 2011) and general clinical intervention literature such as that presented in other chapters of this book.

Programmes targeting cognitive problems may centre on helping the child to develop strategies to get through each day without missing out important aspects of daily routines, rather than improving attention and memory functioning. Developing systematic routines, arranging the environment so that it is very predictable, and using lists and alarm timers may be tested as possible environmental interventions. Coaching youngsters to organize material that has to be learned into a coherent visual or linguistic map; helping them to use multi-sensory learning methods where auditory, visual and kinaesthetic channels are used simultaneously to learn new information; and encouraging over-learning are skills-based strategies for improving memory that may be tested with individual cases.

Programmes to alter seizure activity may include interruption of pre-seizure behavioural chains, desensitization to seizure-producing stimuli, and removal of positive and negative reinforcing social consequences which follow from seizure activities.

A range of psychological interventions are helpful in the management of emotional and behavioural problems associated with TBI (Brown et al., 2013; Ross et al., 2011). Programmes targeting emotional problems such as anxiety and depression, and conduct problems such as aggression and impulsivity may be developed for children with traumatic brain damage in the same way as those for children who have these problems but who do not suffer from brain damage. Such interventions are discussed in Chapters 10, 11, 12 and 17. Central organizing themes in working with children and families where traumatic brain injury has occurred are parental guilt for not preventing the accident and grief associated with the loss of the healthy child. A fuller discussion of grief processes is given in Chapter 24.

For language problems, referral to a speech therapist may be made, and in the case of motor impairments, referral to a physiotherapist is appropriate. Multi-disciplinary co-ordination of various components of an overall treatment programme is essential where a number of professionals are contributing to rehabilitation.

Psychometric tests and clinical practice

Psychometric tests are central to clinical practice in cases of learning and communication problems. In this part of the chapter three issues will be dealt with. First, some guidelines for evaluating new tests will be given. Second, there will be a discussion of some aspects of the most popular ability tests. Finally, guidelines for practice in cases where psychometric assessment forms part of the overall evaluation process will be outlined.

Evaluating new tests

Psychometric tests are useful tools for assessing learning and communication problems. The production and marketing of these tests is also big business, and practicing clinicians are regularly flooded with advertisements for new instruments which often make unsubstantiated claims for their reliability, validity and usefulness. Professional associations such as the British Psychological Society and the American Psychological Association periodically publish standards that may be used by individual clinicians in evaluating tests. Such standards require regular revision because of the growth of increasingly sophisticated test construction technology.

However, in selecting new tests four issues should be taken into consideration:

- norms
- reliability
- validity

- user-friendliness.

Norms. Ideally, a test should be standardized on the population from which your clinical cases will be referred. The normative sample should be large and representative of the population containing your referrals. Usually this will mean that the population is the same nationality and falls within the same age bracket as the cases you intend to assess using the test. Often, however, this ideal cannot be achieved. For example, here in Ireland, we routinely use ability and intelligence tests standardized on UK and US populations of children. Tests which are standardized on small unrepresentative samples of children which do not closely resemble the population from which your referrals are drawn should not be used, since valid conclusions may not be drawn from clients' scores on them.

Reliability. Reliability refers to the consistency and stability of test or scale scores across items, raters and testing occasions. Ideally tests should be highly reliable with internal consistency reliability coefficients and test–retest reliability coefficients of 0.9 or greater, and no lower than 0.7. Internal consistency coefficients, of which Cronbach's alpha is the most common, indicate the degree to which all of the items in the test reliably contribute to the overall test score. Test–retest reliability coefficients indicate the stability of test scores over time. In the case of rating scales, inter-rater reliability of greater than 0.9 (and no lower than 0.7) is also desirable. This indicates that when two people rate the same case using the rating scale, they make similar ratings. Tests and rating scales that have reliability coefficients below 0.7 are not clinically useful.

Validity. A valid test is one which measures that construct which it purports to measure. Ideally there should be data to show that a test has concurrent criterion validity, predictive criterion validity, and construct validity. For concurrent and predictive criterion validity, a series of studies should be cited in the test manual which shows that the test scores correlate highly with the status of cases on meaningful criteria at the same point in time and some time after the test has been administered. For example, the results of a new intelligence test should correlate with results of other intelligence tests given at the same time or some time (say a year) after the first period of testing. For construct validity, studies should be cited in the test manual which show that the test has relationships with other constructs entailed by well-validated theories. For example, high scores on an adaptive behaviour scale dimension would be expected to correlate negatively with scores on the Child Behaviour Checklist. In cases where a test is expected to measure a number of factors (such as verbal and non-verbal intelligence), the construct validity of the test is supported by studies which show that the factors the test is intended to measure are consistent with the results of a factor analysis.

User-friendliness. A user-friendly test has convenience features that make it attractive to clients and clinicians. Tests that engage clients' interest, sustain their motivation, and do not distress or bore clients are user-friendly. Tests that are easy to administer, quick to score, and have features that minimize the chances of clerical errors are user-friendly for clinicians. It is also helpful if tests form part of a suite of tests that are similarly scored and normed. The Wechsler intelligence and achievement tests are good examples of this. Finally, it is useful if tests include a facility for computer administration, scoring, report writing and editing computer-produced reports.

The WISC and other IQ tests

David Wechsler has developed the most widely used set of intelligence tests and related tests of attainment and ability in the English-speaking world. These tests are revised regularly. Details of recent versions of these are given in Tables 8.2 and 8.6. The bulk of children referred to child and adolescent psychologists with learning problems as a primary or secondary difficulty are between the ages of 6 and 17. The Wechsler Intelligence Scale for Children (WISC) is specifically designed for children in this age range. For toddlers too young to complete the WISC there is the Wechsler Preschool and Primary Scale of Intelligence (WPPSI). This is suitable for children aged 2–7 years. With older teenagers and adults, aged 16 and up, the Wechsler Adult Intelligence Scale (WAIS) may be used. The Wechsler Abbreviated Scale of Intelligence (WASI) is a four sub-test scale for use with people 6–89 years. There is also a suite of Wechsler Individual Ability Tests (WIAT) to assess language, literacy and numeracy skills.

Comparison of WISC scores with other Wechsler tests. Comparisons of FSIQ scores on the WISC, WPPSI, WAIS and WASI show that significant discrepancies occur between these tests and also that there are discrepancies between FSIQs from different revisions editions of the same test (Sattler, 2008). This must be borne in mind when conducting follow-up assessments of children who were previously assessed with other revisions of a similar Wechsler test (e.g. following up a child with the WISC-V who was previously assessed with the WISC-IV) and also when following up children previously assessed with other tests (e.g. following up a child with the WISC- IV who was previously assessed with the WPPSI-III). These discrepancies across different revisions and versions of the test are documented in Jerry Sattler's books (1992, 2001, 2008; Sattler & Dumont, 2004). The full scale IQ of the WISC-IV has been found to be about 3 points lower than that of the WISC-III, the WAIS-III and the WASI, but less than a point different than the WPPSI-III.

Practice effects and short forms of the WISC-III. Where repeated testing is conducted over time it is important to take account of gains made due to practice effects. Over a 3-week period on Wechsler tests gains of up to 8 points may occurs in FSIQ, 2 points in verbal IQ (VIQ) and 8 points in performance IQ (PIQ). These gains are also documented in Jerry Sattler's books (1992, 2001, 2008; Sattler & Dumont, 2004). Short forms of Wechsler tests may be used for preliminary screening, for assessing children with sensory or motor impairments who are unable to complete the full test, for assessing overall ability when this issue is a peripheral part of the overall assessment, or for research purposes. Vocabulary and Block Design is the most reliable and valid two sub-test short form of most Wechsler tests which includes both a verbal and a performance sub-test. Results of short forms may be converted to IQs using the tables provided in Jerry Sattler's books (1992, 2001, 2008; Sattler & Dumont, 2004). A less sophisticated approach is to divide the sum of the scaled scores by the number of sub-tests administered and multiply by the total number of sub-tests in the full version of the test. However, this approach yields a crude estimate and does not take account of varying sub-test reliability.

Alternatives to Wechsler's tests. Important alternatives to Wechsler's approach to test development include the Stanford-Binet and the British Ability Scales (BAS), details of which are given in Table 8.2. Both of these tests have a wide age range and may be used with children from pre-school years right up to late teenage years; the Stanford-Binet may be used with adults. The British Ability Scales is widely used in the UK.

Guidelines for using tests in clinical practice

Use a core battery approach. Ability tests may be used to check out hypotheses or as a procedure for establishing a relationship with the child and generating hypotheses about its difficulties. For generating hypotheses, clinicians should have a core battery of tests with which they become very familiar. For hypothesis testing, clinicians should carefully select specific tests which are added onto the core battery to assess specific functions or deficits.

Take account of sensorimotor and medication factors. Before testing, check the child's sensory or motor functioning and medication usage with the referring agent. If the child has sensory or motor deficits, specific tests will need to be chosen for the assessment session. Medication may affect the child's alertness. All of these factors may have implications for the duration of the assessment or the number of sessions required for its completion.

Explain procedures. Explain the administration of the tests to parents and children. Testing may be described as a way of finding out what the child's strengths are and how he or she can take advantage of these strengths in learning new skills at school and at home. For younger children, explain that the tests are a series of puzzles or games that most children like to try out. Explain to parents and children how long the testing will take, when they will receive the results and what use will be made of the results. With young children, give explanations in terms they can understand. 'This will be like a full morning in play-school. We will have a break for juice and biscuits just like you have at play-school.'

Start with an ice-breaker. In setting up the testing situation, meeting the child in the waiting room, bringing him or her to your office, engaging in pre-testing interaction and completing the tests, try to visualize it from the child's viewpoint and make arrangements that will maximize the child's motivation and performance within the boundaries set by the standard procedures in the manual. Have an ice-breaker activity prepared for the child to absorb their attention as soon as they enter the testing situation. The more attractive this is the better. However, it should be an activity from which the child will find it easy to disengage when you are ready to begin formal testing. Drawing a self-portrait or a house, tree and person with big felt-tipped pens is a useful ice-breaker.

Make a smooth transition to testing. Make a smooth transition from the ice-breaker to the first sub-test to be administered. To the child, the more this transition seems like a direct continuation in a sequence of enjoyable activities the better. Arrange the manual, stopwatch and all testing materials and recording forms so that they are easily accessible to you but not the child. Arrange the seating and desk or table so that the specific material you wish the child to manipulate is easily accessible to the child. Let the child know that the testing situation involves spending a small period of time on a lot of tasks, rather than a long period of time on a single task.

Manage family members sensitively. If parents remain with children during testing, place their chairs outside the child's visual field and ask parents to help their children to concentrate and develop a good working relationship with you by remaining silent. Giving the parent a Child Behaviour Checklist or Strengths and Difficulties Questionnaire and other paper-and-pencil instruments to complete may offer them a way to remain present to support their child without compromising the validity of the testing procedures. Parents may wish to remain with their children throughout testing procedures when they are very young, when they have particular types of disabilities, or when the parent and child have separation anxiety. It is important to always respect the parents' wish to remain with the child during assessment procedures, except in certain child protection assessment situations. This issue is discussed in Chapter 21 on child sexual abuse. If other children are present during testing (for example where testing is conducted in the child's home), give them an absorbing task to do, such as drawing or writing a story, so that they are less likely to distract the child being tested.

Manage children's adjustment to the session sensitively. Reward children with smiles and praise for motivation, effort and co-operation, not for giving the correct response. Where children say 'I don't know' instantly to all items, encourage them to guess. If they give wild guesses, encourage them to think through their answers before replying. If anxiety, anger, excitability, boredom or sadness begin to interfere with a child's motivation and performance, decide whether to distract the child from these experiences by helping her to focus concentration on the testing situation or whether to take a break from the testing procedures. Often, children's off-task comments and behaviour give important clinical information about the child's problems. It may give information about how long they can concentrate for, what sorts of material or situations interfere with their on-task behaviour, what types of life themes preoccupy them, and how they respond to being given space to ventilate their feelings or efforts to refocus their attention.

Modify standard procedures if necessary. If children have problems completing all tests in a single session, spread tests across a number of sessions. Follow the instructions in the manual unless the child's characteristics (e.g. sensory impairment, motor impairments, behavioural difficulties, or difficulties related to medication) or characteristics of the situation (e.g. limited amount of time available, distracting or noisy clinical environment) make modifications necessary. Make a note of all modifications to standard procedures and take these into account when drawing conclusions. Make a note of the level of co-operation shown by the child in completing the testing and the degree to which this detracts from the reliability and validity of the obtained results. Record all answers and times (for timed responses) accurately.

Score tests accurately. Score tests according to the manual. Double check computations. Double check conversions from raw scores to normed scores. Tabulate results. Wherever possible, express results as percentiles, since these are easy for parents and other professionals to interpret.

Give feedback to parents. At the conclusion of a testing session, praise the child for sustained effort. Then try to put yourself (metaphorically) in the parents' shoes. Parents will have had concerns about the tests, their child's abilities and so forth and will want, in many instances, to know exactly what the results were. There are four options here. The first is to let parents know how well the child co-operated with the testing procedure and assure the parents that the result of the tests will be valid because of the level of motivation and co-operation shown. Then invite parents to a subsequent appointment where the results will be given when the scoring is complete and has been considered in the light of data from other sources such as other members of a multi-disciplinary team and the school. The second option is to ask the parents to wait in the clinic while scoring and interpretation is completed and then convene a feedback meeting. The third option is to let the parent know that further testing is required and arrange further appointments. The final option is to let the parents know that valid results could not be obtained and to make arrangements for further case management that take account of this.

Work co-operatively with schools. Once parents have understood the implications of psychometric results and related clinical findings, a plan for communicating these results to the child's teachers and discussing how an appropriate programme of remedial education may be developed, resourced and implemented needs to be worked out. A useful framework for joint working with families and schools has been described by Dowling and Osborne (1994).

Prevention

Early intervention programmes for children with ID either alone or accompanied by physical disability have been shown to have an impact on later adjustment, although the extent and durability of this effect remains a matter for debate. Such programmes focus on skills training for the child in conjunction with parent support and training (Lange & Carr, 2002; O'Sullivan & Carr, 2002). Early intervention programmes for language disorders may reduce the extent of later difficulties in some cases (Snowling & Hulme, 2011). With specific reading retardation and other specific learning disorders, there is agreement that the earlier these problems are recognized and remedial tuition started, the better (Maughan, 1995; Topping, 1986). With head injury, teaching children safety skills such as wearing helmets when riding bicycles is central to prevention, and programmes to teach such skills can be effective (Weiss, 1992).

Summary

In this chapter ID, specific learning disorders, communication problems, and TBI-related learning difficulties were considered. One to three per cent of the population may be classified as having ID. Discrete genetic and organic factors are implicated in the aetiology of moderate and severe disability whereas polygenetic influences and psychosocial adversity underpin mild ID. Intervention programmes include psychoeducation, organization of appropriate supports and periodic review, offering life skills training for the child, providing consultancy to manage challenging behaviour, counselling during family lifecycle transitions and supporting families in dealing with the grief process.

Language disorder may involve difficulties with phonology, semantics, syntax, pragmatics and fluency. There is a hierarchy of vulnerability in the components of language that are effected in cases of language disorder with expressive phonology being the most vulnerable component, through expressive syntax and morphology, expressive semantics, to receptive language which is the least vulnerable component. Language disorders are most common among children under 5 and they are far more common among boys. They are associated with co-morbid conduct problems and later reading difficulties. Genetic factors play a central role in the aetiology of language disorder. Otitis media may play a role in expressive language disorders, and psychosocial disadvantage may also play an aetiological role in some cases. In differential diagnosis, language disorder should be distinguished from three syndromes: autism, Landau-Kleffner syndrome and selective mutism. Multi-disciplinary assessment and referral for individualized speech therapy are the central to the management of language disorder.

Up to 5% of children suffer from specific learning disorders and of these, specific reading disorder is the most common. Genetic factors probably play an important role in the aetiology of these disorders, although psychosocial factors may maintain the secondary conduct and emotional problems that typically develop in youngsters with these conditions. Psychometric evaluation followed by home–school liaison and remedial tuition is the management approach of choice.

Learning difficulties arising from TBI typically involve problems in remembering new information or recalling previously learned information and are classified in DSM-5 as neurocognitive disorder due to head trauma. Following TBI, children may show cognitive, behavioural, emotional and attainment problems. The severity of these difficulties is influenced by biological factors associated with the injury, predisposing personal and contextual factors associated with pre-morbid functioning, personal and contextual maintaining factors, and personal and contextual protective factors. Important biological factors for later adjustment include the nature of the lesion, secondary complications, seizure activity, coma duration, and the duration of post-traumatic amnesia. Intervention in cases of TBI should include psychoeducation where prognostic information is provided, periodic reassessment where recovery is regularly tracked, and counselling on the management of cognitive, behavioural and emotional problems and seizure activity.

In selecting psychometric tests for use in the assessment of learning and communication problems, the adequacy of their reliability, validity and user-friendliness should be taken into account, as well as the availability of appropriate norms. Routinely using a core test battery, with supplementary tests added as required, is a particularly manageable way to deal with cohorts of cases requiring psychometric assessment of learning and communication problems. In assessing any case the impact of sensorimotor problems and medication factors should be taken into account. Testing procedures should be explained at the outset and a sensitive approach to parents and children taken in managing their adjustment to the testing situation. Standard testing procedures should only be modified if absolutely necessary to accommodate to the child's unique disabilities. Tests should be accurately scored and feedback given sensitively. Co-operative work with parents and schools may follow.

Early intervention programmes for children with ID either alone or accompanied by physical disability have been shown to have an impact on later adjustment, and these programmes focus on skills training for the child in conjunction with parent support and training.

Exercise 8.1

If Bruce and Sandra mentioned in Box 8.1 were referred to you when Bruce was 11 following an incident where he hit and injured his mother, how would you go about conducting an assessment of the situation?

Exercise 8.2

Work in groups of five. Three people take the roles of Roy Murphy and his parents mentioned in Figure 8.1. The other two people take the role of a clinical team. The team's task is to explain the test results to Mr and Mrs Murphy and Roy and then coach them in how to do paired reading and simultaneous oral spelling.

Exercise 8.3

With respect to the case described in Box 8.2, work in triads taking the roles of psychologist, mother and father. The psychologist must give the parents the information arising from the assessment. The parents enter this interview with the view that Chris, their only child, is naughty just like his cousin. The mother thinks that this is because the father is too lenient. The father blames Chris's misbehaviour on his TV watching habits. The teacher has hinted that the boy has an ID.

Exercise 8.4

With respect to the case described in Box 8.3, what feedback would you give Mary and her parents?

Further reading

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Wall, K. (2009). *Special needs and early years practice. A practitioner's guide* (3rd ed.). London: Paul Chapman.

Websites

American Association on Intellectual and Developmental Disabilities: http://aaidd.org/

American Speech-Language-Hearing Association: http://www.asha.org

Brain Injury Association of America: http://www.biausa.org

British Dyslexia Association: http://www.bdadyslexia.org.uk

British Institute for Learning Disabilities: http://www.bild.org.uk

Dyslexia Institute: http://www.dyslexia-inst.org.uk

Headway: http://www.headway.org.uk/

International Dyslexia Association: http://www.interdys.org/

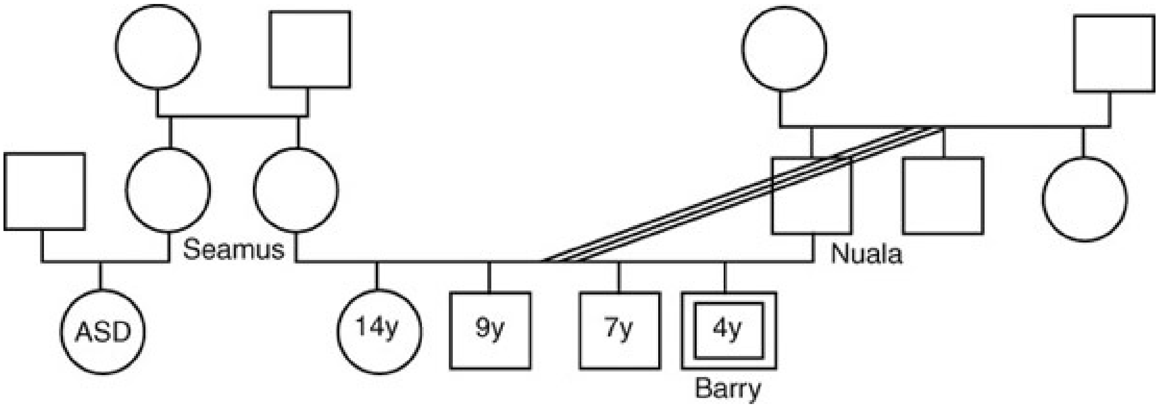
Royal College of Speech and Language Therapists: http://www.rcslt.org

Chapter 9

Autism spectrum disorders

Autism spectrum disorder (ASD), which includes autism, Asperger's syndrome and other pervasive developmental disorders, entails substantial social, communicative and behavioural problems (Volkmar, Paul et al., 2014). Autism was first described by Leo Kanner in 1943 and Hans Asperger described a similar syndrome in 1944, although the individuals he described did not show low overall intelligence or severe language deficits. The early and accurate identification, evaluation and management of children with these problems are essential since this may affect outcome. Working in partnership with colleagues on multi-disciplinary teams, with children's teachers and with their parents is central to good practice in this area. As youngsters move towards adulthood, promoting skills for independent living, insofar as that is possible within the constraints entailed by the disability, is the primary goal. Approximately a fifth of children with ASD are able to live independently in adulthood and just under a half become employed (Howlin, 2014). Children with a non-verbal IQ within or above the normal range and some functional language skills by the age of 5 have the best prognosis. However, underestimating the potential of children with ASD to develop life skills is the major pitfall to be avoided. Catherine Maurice's account of how she used behavioural methods to help two of her own children achieve a high level of functioning should offer hope to parents and professionals who treat children with this disorder (Maurice, 1993). A case of ASD is presented in Box 9.1. In this chapter, after considering the diagnosis, clinical features, classification and epidemiology of ASD, a variety of theoretical explanations concerning their aetiology will be considered. The assessment of ASD and an approach to its management will then be given.

Box 9.1 A case of ASD



Referral. Barry, a 4 year old with delayed language, motor, and social development, was referred by the family doctor to an Irish community-based early intervention team. The request was for an assessment of autism spectrum disorder (ASD) and intellectual disability (ID) under the Disability Act prior to primary school entry. The aim was to establish a case management plan and specify educational and health resources Barry needed to enter primary school.

Developmental history. Barry was born at 38 weeks with low birth weight to Nuala who was 39 years old at his birth. Barry had congenital heart disease. He underwent surgery when he was 2 days old, suffered a cardiac arrest, and had two further open-heart procedures at 4 months and 4 years of age. A previous assessment and intervention conducted by the hospital-based multi-disciplinary team showed that Barry had a global developmental delay. His IQ was in the borderline range (70–84), and he had significant adaptive behaviour deficits. He sat up at 1 year, walked at 2 years, and spoke his first words at 3.5 years. During his first 3 years he had feeding and sleeping difficulties. He was slow to gain weight and had very frequent night waking. Barry was placed in a specialist pre-school at 2 years. He received treatment from hospital-based physiotherapy (PT), occupational therapy (OT) and speech and language therapy (SLT) services between 2 and 4 years. These services also advised the specialist pre-school on the design of programmes to facilitate Barry's motor, social and language development. Barry required a special educational needs primary school placement. This was the main reason for the referral.

Family history. Barry lived with his parents, Seamus and Nuala, and three siblings (aged 7, 9 and 14 years) whose development was normal. His first cousin had ASD. The maternal grandparents were very supportive of Barry and his family, and offered informal regular respite care.

Assessment. An ID with the Stanford-Binet-5 and Vineland-II showed that Barry had mild ID. His full scale IQ was below 70; his non-verbal IQ was greater than his verbal IQ; and he had significant adaptive behaviour deficits. An ASD assessment showed that on the revised Autism Diagnostic Interview and Autism Diagnostic Observation Schedule

Barry scored above the cut-offs on the diagnostic algorithm for autism.

With regard to daily living skills, Barry could wash, dress, use the toilet and feed himself, but had limited concepts of time, money and safety. With regard to social interaction, Barry avoided eye contact, was socially withdrawn in groups, and did not initiate or respond to joint attention. With regard to communication, Barry had limited language, did not initiate conversation, had echolalia, had strange speech intonation, rarely directed speech to his parent or the psychologist who assessed him, and did not engage in imaginative play. With regard to stereotyped behaviour, Barry rocked, made high-pitched noises, flicked his hands in front of his eyes, was rigid about food, had many rituals and was distressed by change in routines. With regard to challenging behaviour Barry sometimes banged his head or hit, bit and shouted at others. With regard to supports and educational needs, Barry had strong family support and a successful pre-school placement. In the future he required an educational programme designed to take account of his ASD-ID profile.

Feedback. Over two meetings the results of the assessment were discussed with Nuala and Seamus. In these feedback meetings, the extent to which the test results fit with the diagnostic criteria for ID and ASD was discussed along with the implications of this for Barry's support needs in primary school. With regard to school placement, four options were discussed: (1) placement in a state special school for children with ASD, (2) placement in a private school for children with ASD which used an applied behavioural analysis approach, (3) placement in a special class for ASD children in a state or private mainstream school, and (4) placement in a regular class in state or private mainstream school with a full-time special needs assistant. There was also discussion of Barry's need for therapeutic support for motor, social and language development. This would require teachers in his primary school educational placement to link with hospital-based PT, OT and SLT services, as they had done with Barry's pre-school placement. Management of Barry's self-injurious and challenging was also considered. Plans were made to conduct a functional analysis of his head-banging and aggressive behaviour with a view to developing behavioural interventions to modify these.

School placement. Barry was placed in a special class for children with ASD in a state school, with a designated special needs assistant to support implementation of an educational programme which took account of his ASD-ID profile. The hospital-based PT, OT and SLT consulted with school staff and parents so that PT, OT and SLT interventions could be incorporated into Barry's individual educational plan at school, and his parents' routines for Barry's management at home.

Challenging behaviour. A functional analysis of head-banging and challenging aggressive behaviour was conducted. Lack of sleep (leading to tiredness) and lack of stimulation (leading to boredom) were the main antecedents for head-banging. Sensory stimulation and adult attention were the main consequences. Interventions to change both antecedents and consequences were implemented. To manage sleeplessness and tiredness, parents were helped to develop consistent bedtime, night-waking and morning routines for Barry and he was also trained to communicate that he wanted to rest when tired. To manage lack of stimulation and boredom, parents and school staff were helped to develop daily educational and leisure routines for Barry to prevent boredom, and he was also trained to request interaction and stimulation when bored. The Picture Exchange Communication System (PECS) was extensively used in implementing these interventions to change antecedents of head-banging. The main interventions to change the consequences of head-banging was putting a sponge pad on hard surfaces against which Barry banged his head, as soon as head-banging started. Parents and teachers also distracted Barry in a low-key way saying his name, asking him to do a non-injurious activity and reinforcing him for that.

For the challenging aggressive behaviours of hitting, biting and shouting, the main antecedents were transitions from home to school, being required to carry out educational tasks for long periods without a break at school, and physical pain. The main consequences were negative reinforcement (entailed by escaping from these distressing situations), and receiving intense adult attention. Interventions to change antecedents and consequences were developed. To prevent home-to-school transitions triggering challenging behaviour, parents and teachers were helped to develop a routine for the home-to-school transition each morning, and to communicate this to Barry with a PECS schedule so that he was aware that each morning there was a predictable routine. To prevent overly long work periods triggering challenging behaviour, a schedule of work and rest periods that prevented sensory overload, distress and challenging behaviour was developed in collaboration with his teachers. For each work period, teachers let Barry know how much work he would have to do before he could rest, and used social reinforcement as he worked towards completion.

To deal with challenging behaviour triggered by pain, a set of written questions was drawn up (which Barry understood) that inquired about earaches, headaches and stomach aches. If he indicated that he was in pain, steps were taken to alleviate this. The main intervention to change consequences of challenging aggressive behaviour involved teachers or parents walking Barry slowly to a quiet area, and engaging him in slow walking until his distress abated.

Outcome. Assessment and feedback in this case spanned five sessions over 6 weeks. Behavioural assessment of self-injurious and challenging behaviour and intervention spanned a further 12 weeks, including the transition to the primary school placement which took a while to set up. Head-banging reduced from 15 episodes per week to one or two episodes per week. Challenging aggressive behaviour reduced from 10 episodes per week to one or two episodes per week. Barry settled in well to his primary school placement.

Diagnosis, clinical features and classification

Children who, from infancy, show extremely marked deficits in language use and social communication (SC) on the one hand, and restricted, repetitive behaviour patterns (RRB) on the other are classified within DSM-5 (APA, 2013) as having ASD and within ICD-10 (WHO, 1992) as having autism or Asperger's syndrome. Diagnostic criteria for these conditions are given in Table 9.1. In previous editions of the DSM distinctions were made between autism, Asperger's syndrome and other pervasive developmental disorders. Also, reference was made to a triad of impairments in the areas of social interaction, communication and restricted, repetitive behaviour. However, research has shown that deficits in ASD fall along two dimensions (SC and RRB) and that these dimensions are distributed within the population as continua, which makes it more valid to conceptualize these conditions as a spectrum (that is, ASD) rather than a set of distinct categories (Ingersoll & Wainer, 2012; Shuster et al., 2014).

Table 9.1 Diagnosis of autism spectrum disorders

DSM-5	*ICD-10*
Autism Spectrum Disorder A. Persistent deficits in social communication (SC) and social interaction across multiple contexts, as manifested by: 1. Deficits in social-emotional reciprocity, ranging, for example, from abnormal social approach and failure of normal back-and-forth conversation; to reduced sharing of interests, emotions, or affect; to failure to initiate or respond to social interactions. 2. Deficits in nonverbal communicative behaviors used for social interaction,	**Autism**

ranging, for example, from poorly integrated verbal and nonverbal communication; to abnormalities in eye contact and body language or deficits in understanding and use of gestures; to a total lack of facial expressions and nonverbal communication.

3. Deficits in developing, maintaining, and understanding relationships, ranging, for example, from difficulties adjusting behavior to suit various social contexts; to difficulties in sharing imaginative play or in making friends; to absence of interest in peers.

B. Restricted, repetitive patterns of behavior, interests, or activities, as manifested by at least two of the following, currently or by history (examples are illustrative, not exhaustive; see text):

1. Stereotyped or repetitive motor movements, use of objects, or speech (e.g., simple motor stereotypies, lining up toys or flipping objects, echolalia, idiosyncratic phrases).
2. Insistence on sameness, inflexible adherence to routines, or ritualized patterns of verbal or nonverbal behavior (e.g., extreme distress at small

A pervasive developmental disorder defined by the presence of abnormal and/or impaired development that is manifest before the age of 3 years, and by the characteristic type of abnormal functioning in three areas of social interaction, communication and restricted repetitive behaviour.

Usually there is no prior period of unequivocally normal development but, if there is, abnormality becomes apparent before the age of 3 years. There are always qualitative impairments in reciprocal social interaction. These take the form of an inadequate appreciation of socioemotional cues, as shown by a lack of responses to other people’s emotions and/or a lack of modulation of behaviour according to social context; poor use of social signals and a weak integration of social, emotional, and communicative behaviours; and, especially, a lack of socioemotional reciprocity.

Similarly qualitative impairments in communication are universal. These take the form of a lack of social usage of whatever language skills are present; impairment of make-believe and social imitative play; poor synchrony and lack of reciprocity in conversational interchange; poor flexibility in language expression and a relative lack of creativity and fantasy in thought processes; lack of emotional response to other people’s verbal and non-verbal overtures; impaired use of variations in cadence or emphasis to reflect communicative modulation; and a similar lack of accompanying gesture to provide emphasis or aid meaning in spoken communication.

changes, difficulties with transitions, rigid thinking patterns, greeting rituals, need to take same route or eat same food every day).

3. Highly restricted, fixated interests that are abnormal in intensity or focus (e.g., strong attachment to or preoccupation with unusual objects, excessively circumscribed or perseverative interests).
4. Hyper- or hyporeactivity to sensory input or unusual interest in sensory aspects of the environment (e.g., apparent indifference to pain/temperature, adverse response to specific sounds or textures, excessive smelling or touching of objects, visual fascination with lights or movement).

C. Symptoms present in the early developmental period (but may not become fully manifest until social demands exceed limited capacities, or may be masked by learned strategies in later life).

D. Symptoms cause clinically significant impairment in social, occupational, or other important areas of current functioning.

E. These disturbances are not better explained by

The condition is also characterized by restricted, repetitive and stereotyped patterns of behaviour, interests and activities. These take the form of a tendency to impose rigidity and routine on wide range of aspects of day-to-day functioning; this usually applies to novel activities as well as to familiar habits and play patterns.

In early childhood there may be attachment to unusual, typically non-soft objects. The children may insist on the performance of particular routines or rituals of a non-functional character; there may be stereotyped preoccupations with interests such as dates, routes or timetables; often there are motor stereotypies; a specific interest in non-functional elements of objects (such as their smell or feel) is common; and there may be resistance to changes in routine or details of the personal environment.

Asperger’s Syndrome

A disorder characterized by the same kind of qualitative abnormalities of reciprocal social interaction that typify autism, together with a restricted stereotyped, repetitive repertoire of interests and activities.

The disorder differs from autism primarily in that there is no general delay or retardation in language or in cognitive development.

Most individuals are of normal intelligence but it is common for them to be markedly clumsy.

intellectual disability (intellectual developmental disorder) or global developmental delay. Intellectual disability and autism spectrum disorder frequently co-occur; to make comorbid diagnoses of autism spectrum disorder and intellectual disability, social communication should be below that expected for general developmental level. (For specifiers, see DSM-5 pp. 50–51.)	There is a strong tendency for the abnormalities to persist into adolescence and adult life and it seems they represent individual characteristics that are not greatly affected by environmental influences. Psychotic episodes occasionally occur in adult life.

Note: DSM-5 diagnostic criteria are reprinted with permission from the *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition* (APA, 2013). Copyright © 2013 American Psychiatric Association. The material in the column headed ICD-10 is a summary of the clinical description and diagnostic guidelines for autism and Asperger's syndrome. For the full official WHO clinical descriptions and diagnostic guidelines for these disorders see WHO, 1992, pp. 253–254, and 258–259.

SC deficits, which first appear in infancy, include the absence of eye-to-eye signalling, the absence of the use of social or emotional gestures, a lack of reciprocity in social relationships, attachment problems such as an inability to use parents as a secure base, little interest in peer relationships, lack of empathy and little interest in sharing positive emotions such as pride or pleasure with others. Imaginative or make-believe play is virtually absent. Language development in autistic children is usually delayed and the language of autistic children is characterized by a variety of pragmatic abnormalities including pronominal reversal, echolalia, neologisms and speech idiosyncrasies. With pronominal reversal, the child uses the pronoun *you* in place of the pronoun *I*. With echolalia the child repeats the exact words that someone has said to them with the same intonation. ASD children rarely engage in extended conversations focusing on social or affective topics and display little creativity in language use.

RRB of children with ASD is characterized by stereotyped repetitive patterns and a restricted range of interests. Stereotyped repetitive patterns may include tics and rituals. Interests may present as encompassing preoccupations, with features similar to obsessive-compulsive disorder (OCD); for example collecting and arranging things in a specific way. There may also be preoccupations with parts of objects. There is also a strong desire to maintain routines, rituals and sameness, and a resistance to change and considerable anxiety or distress is displayed when routines are disrupted.

The clinical features of ASD are listed in Table 9.2 (Volkmar, Paul et al., 2014). Most of the clinical features in the interpersonal, language and behaviour domains were covered earlier in the description of SC and RRB deficits. In the language domain it is noteworthy that about a third of children with autism initially develop language skills but lose these towards the end of the second year. ASD is usually recognized by the second year of life. The loss of language skills in the second year is an important clinical feature suggesting ASD be considered as a possible diagnosis.

In the behaviour domain it is noteworthy that over-activity, attention problems, aggression and self-harm (for example head-banging) occur in a significant minority of children with ASD, with some ASD children meeting the diagnostic criteria for ADHD, oppositional defiant disorder and conduct disorder.

In the affect domain, emotional expressions of ASD children are typically inappropriate to the social context within which they occur. For example, many ASD children, like Barry in the case example presented in Box 9.1, are unable to appreciate a joke. Intense tantrums and negative emotional displays may occur as an expression of resistance to change. In addition many ASD children have fears and phobias.

In the cognitive domain, it is noteworthy that about 80% of children with ASD have IQs below 70 and the characteristic profile is for scores on indices of non-verbal ability to exceed those of verbal ability. An IQ above 50, especially a verbal IQ above 50, is a particularly significant protective factor associated with a better prognosis. Age-appropriate language development at 5 years is also a good prognostic sign. Some youngsters with ASD have islets of ability. For example, they may be able to play many tunes by ear or remember a catalogue of facts. However, the most noticeable cognitive deficit in ASD is an inability to solve social or interpersonal problems.

In the sensory domain, ASD children may show over-sensitivity to certain types of sensory stimulation, for example, loud noise, bright lights, crowded places or loud complex conversations. In contrast they may also show under-sensitivity to certain types of sensory stimulation, for example extreme of heat, cold or pain. They may also show a fascination with certain types of sensory stimulation including smells, tastes, lights or sounds.

Table 9.2 Clinical features of ASD

Domain	*Feature*
Interpersonal adjustment	• Inability to make and maintain relationships • Inability to understand what others are thinking or feeling and empathize with them • Lack of understanding of rules governing social interaction • Lack of reciprocity in social interaction
	• Developmental language delay • About a third of ASD children develop language and lose it towards

	the end of the second year
Language	• Lack of social conversation • Lack of creative use of language in conversation • Pronominal reversal • Echolalia • Neologisms • Idiosyncratic use of language
Behaviour	• Stereotyped behaviour patterns, routines, rituals, tics and OCD-like symptoms • Restricted interests and encompassing preoccupations • Absence of imaginative play • Resistance to change • Poor motor co-ordination or clumsiness • Over-activity and attention problems, or ADHD • A minority show co-morbid oppositional defiant disorder (ODD) or conduct disorder (CD) with aggressive behaviour • A minority show self-injurious behaviour (head-banging or biting)
Affect	• Inappropriate emotional expression • Intense negative emotional response to change (tantrums) • Fears and phobias • Difficulty appreciating humour
Cognition	• 80% have full scale IQ below 70 • Non-verbal greater than verbal ability • Islets of ability • Rigid thinking • Poor social problem solving
Sensory sensitivity	• Over-sensitivity to certain types of sensory stimulation (loud noise, bright lights, crowded places, complex conversations) • Under-sensitivity to certain types of sensory stimulation (heat, cold, pain) • Fascination with certain types of sensory stimulation (smells, tastes, lights, sounds)
Physical condition	• Up to a third of cases develop epilepsy • Enuresis, encopresis, feeding and sleep problems are common in younger cases • Gastrointestinal problems

In the domain of physical development, up to a fifth of ASD children develop epilepsy in late adolescence. Elimination problems including encopresis and enuresis, gastrointestinal problems, feeding and sleep problems occur in children with ASD. Some also develop physical complications due to self-injurious behaviour such as head-banging or biting. Children with ASD have larger heads than normal during childhood, an abnormality that is not present at birth and one that resolves with age.

Distinctions may be made between ASD as defined in DSM-5 and a number of other similar disorders. In DSM-5 a distinction is made between ASD and social or pragmatic communication disorder. This latter category is for cases that meet the SC but not the RRB criteria for ASD. In ICD-10 a distinction is made between autism and Asperger's syndrome. Asperger's syndrome, like autism, is characterized by both SC and RRB deficits. However, it differs from autism insofar as no delay in language development or intellectual development occurs. Often people with Asperger's syndrome have outstanding memories for facts and figures. Rett's syndrome, like ASD, is also characterized by abnormalities in social and language development and accompanied by repetitive behaviour patterns (Kerr, 2002; Van Acker et al., 2005). However, it is not evident from birth. Rather, the onset of the disorder occurs between 5 and 30 months and is accompanied by a deceleration in head growth. Among the most noticeable features are the loss of purposeful hand movements and the development of stereotyped handwashing movements. Severe or profound intellectual disability accompanies Rett's syndrome, and epilepsy occurs in most cases before adolescence. The syndrome is very rare and has only been observed in girls. Childhood disintegrative disorder (or Heller's syndrome), a rare condition, entails the social, communicative and behavioural features of ASD but follows a period of normal development of at least 2 years (Volkmar, Klin et al., 1997). In previous versions of the DSM the diagnosis of pervasive developmental disorder not otherwise specified (PDDNOS) was used for cases where the onset of autistic features occurred after 3 years of age or where not all symptoms were present. In the ICD-10 the term atypical autism is used for such cases.

Epidemiology

International epidemiological studies show that 66/10,000 (0.66%) of the population has ASD, that autism is more prevalent than Asperger's syndrome, that most individuals now receiving a diagnosis of ASD would previously have been diagnosed as having pervasive developmental disorders not otherwise specified (PDDNOS) using DSM-IV-TR (APA, 2000) criteria, and that Rett's and Heller's syndromes are rare (Fombonne, 2009; Presmanes Hill et al., 2014; van Acker et al., 2005). The approximate prevalence of autism is 26/10,000; of Asperger's syndrome is 7/10,000; of PDDNOS is 37/10,000; of Rett's syndrome is 1–2/10,000; and of Heller's syndrome is 2/100,000. There has been an increase in prevalence of autism in recent years. The broadening of the concept, the development of services, and improved awareness of the condition have contributed to this increase, although there may also be an actual increase in the disorder. The male–female ratio for ASD is about 4:1. There is a strong association between intellectual disability and sex ratio. The highest male–female ratios have been found for children with IQs in the normal range and the lowest ratios occur where children have profound intellectual disabilities (Volkmar et al., 2004).

Co-morbid disorders occur in most children with ASD, and a wide range of psychological and physical conditions are involved (Fombonne, 2005; Mannion & Leader, 2013). Approximately 30% of people with ASD have mild to moderate ID and about 40% have severe or profound ID. About 16% have epilepsy. Co-morbid enuresis, encopresis, gastrointestinal problems, sleep problems, feeding problems, ADHD, oppositional defiant disorder, conduct disorder, anger control problems, low mood, fears and phobias and OCD have all been found in studies of ASD although methodological problems with available studies preclude giving reliable co-morbidity rates. About 5.5% have been found in epidemiological studies to have one of the following disorders: fragile X, tuberous sclerosis, Down syndrome, cerebral palsy, phenylketonuria, neurofibromatosis, and congenital rubella.

Theoretical frameworks

Theories of ASD fall into four broad categories: psychogenic, biogenic, cognitive and motivational. Psychogenic theories argue that psychosocial processes are central in the aetiology of ASD whereas biogenic theories look to biological factors as the basis for the condition. Cognitive theories are concerned not with identifying the primary causes of ASD but with explaining the patterning of symptoms in terms of specific underlying cognitive deficits, and these have increasingly been linked to biogenic theories. Motivational theories explain ASD symptoms in terms of motivational deficits, linked to neurobiological abnormalities. A summary of some of the more important theories in each of these categories is presented in Table 9.3.

Table 9.3 Theories of ASD

Theory type	*Sub-type and source*	*Principles*
Psychodynamic theory	Bettelheim (1967)	Autistic withdrawal occurs as a response to inadequate parenting. Echolalia and insistence on sameness are an expression of hostility associated with unmet needs. Long-term non-directive psychotherapy offers a substitute for the inadequate parent–child relationship and leads to a reduction in withdrawal and expressions of hostility.
	Neurodevelopmental	ASD is a group of neurodevelopmental disabilities or syndromes which reflect injury to a final common pathway.

Biological theories	theory Gillberg & Coleman (2000)	This may be caused by many different disease processes involving genetic factors, intrauterine insults, or perinatal factors or some combination of these.
	Intense world theory	The core pathology of the autistic brain is hyperreactivity and hyperplasticity of local neuronal circuits which leads to hyperperception, hyperattention, and hypermemory, and in response social withdrawal and engagement in repetitive behaviour occurs.
	Broken mirror theory Iacoboni & Dapretto (2006); Oberman & Ramachandran (2007); Williams et al. (2001)	A dysfunction of the motor neuron system underpins the social communication deficits in ASD. The mirror neuron system is the set of brain regions which are active both when a person performs an action and when they observe another person performing the same action.
	Mindblindness/theory of mind, empathizing-systematizing and extreme male brain theory Baron-Cohen et al. (2005)	Mindblindness theory proposed that the social and communicative features of ASD are due to an inability to form cognitive representations of other's mental states, that is to have a theory of mind. This prevents people with ASD from empathizing with others. Empathizing-systematizing theory (an extension of mindblindness theory) proposes that while the social and communicative features of ASD are due to theory-of-mind and empathy deficits, the restrictive, repetitive behaviour, obsessional features and islets of ability features of ASD are due to intact or superior systematizing abilities.
Broadband cognitive		Extreme male brain theory proposes that empathizing deficits and systematizing strengths which characterize ASD are subserved by specific neuroanatomical abnormalities which reflect extremes of typical male neuroanatomy arising

theories		from exposure to abnormally high levels of pre-natal androgens.
	Weak central coherence Happé & Frith (1996)	People with ASD do not have the irresistible urge to make sense of the global features of a situation and process information piecemeal rather than in context. They take a bottom-up rather than top-down approach to managing informational input.
	Executive dysfunction Ozonoff (1997)	Executive function deficits account for communicative and behavioural features and possibly for some of the social features of ASD. Executive functions include the abilities to disengage for the external context, to inhibit unwanted responses, to plan actions, to maintain a cognitive set and stay on task, to monitor performance and use feedback to take corrective action, and to flexibly shift cognitive set.
Narrow-band cognitive theories	Information-processing deficit Hermelin & O'Connor (1970)	ASD children have encoding, sequencing and abstraction deficits which account for delayed language development.
	Joint attention deficit Mundy & Neale (2001)	A deficit in the capacity to jointly attend to events with others and to preferentially orient towards social rather than inanimate events impairs the development of language, social communication and theory of mind in children with ASD.
	Imitation deficit Rogers & Bennett (2000)	A deficit in the capacity to imitate others impairs the development of intersubjectivity and executive functioning and accounts for language and social deficits in ASD.
	Evaluative appraisal autobiographical	In ASD there is an episodic autobiographical memory deficit which is due to an inability to evaluatively appraise the significance

	memory deficit Jordan & Powell (1995)	of events related to the self. Children with ASD, therefore, have problems recalling events as having happened to themselves.
Motivational theories	Social motivation deficit theory Dawson et al. (2005)	In ASD there is a lack of sensitivity to social reward and this accounts for the lower preference in ASD for social activity including imitation, emotional sharing and joint attention. The lack of sensitivity to social reward is due to abnormalities in the social brain circuitry (fusiform gyrus/face perception, amygdala/emotion recognition, pre-frontal cortex/social cognition and superior temporal sulcus/biological motion).

Psychogenic theories

Early theories about the aetiology of ASD attributed the SC and RRB features to emotional difficulties which derived from exposure to inadequate parenting. For example, Bettelheim (1967) argued that autistic withdrawal was the child's response to cold, unemotional, inadequate parenting. Some of the annoying features of ASD such as echolalia, insistence on sameness and stereotyped rituals were viewed as expressions of hostility towards parents who were thought to be perceived by the child as failing to fulfil his or her needs. Long-term non-directive psychodynamic psychotherapy which focused on helping children deal with the central emotional difficulty was identified as the treatment of choice. The aim of the therapy was to provide a substitute parent–child relationship which would meet the child's needs for warmth and acceptance. In some instances, psychotherapy for parents to help them resolve emotional difficulties which underpinned their inadequate parenting was also recommended. These theories evolved within the psychodynamic tradition at a time when psychodynamic studies of children separated from their parents during the war or through hospitalization highlighted the value of parental emotional warmth and availability or a psychotherapeutic substitute for this in helping children to cope with separation.

Psychogenic theories which point to the quality of parenting and patterns of family interaction as the primary cause of ASD have not been supported by carefully controlled studies, which reveal no such abnormalities in the families of autistic children (e.g. Koegel et al., 1983). Controlled studies of treatments based upon the psychogenic model such as psychodynamic play therapy, and more recent offshoots of this such as holding therapy and gentle teaching are unavailable (Reichow & Barton, 2014).

Most recent research points to the neurobiological aetiology of ASD and to the centrality of cognitive rather than emotional factors as underpinning the main clinical features (Volkmar, Paul et al., 2014). Furthermore, behavioural studies point to the importance of directive behavioural methods rather than non-directive psychotherapeutic methods in the treatment of autistic children (Reichow & Barton, 2014). While therapeutic input to parents of children with ASD is warranted, it should aim at supporting parents and training them to implement carefully designed behavioural programmes rather than correcting some underlying intrapsychic or interpersonal deficit.

Biological theories

Biological theories of ASD have attempted to account for the condition through reference to genetic factors, intrauterine environmental factors, peri-natal complications, neuroanatomical factors, neurochemical factors, physiological factors or some combination of these (Gillberg & Coleman, 2000). Much of this research is driven by a neurodevelopmental theory which assumes that ASD is a neurodevelopmental condition in which there is injury to a final common pathway that gives rise to SC and RRB deficits. This may be caused by many different disease processes involving genetic factors, intrauterine insults, or peri-natal factors or some combination of these.

Evidence from twin, family and genetic studies show that genetic factors contribute to the development of ASD, that the mode of transmission is quite complex, and probably involves multiple genes (Rutter & Thapar, 2014). In a small proportion of cases (5–10%) ASD may be due to single-gene disorders or chromosomal abnormalities including fragile X anomaly and tuberose sclerosis. Tuberose sclerosis is a neurocutaneous disorder characterized by skin lesions and neurological features, and both epilepsy and learning difficulties also occur in many cases. There is a 3–7% risk of parents having a second child with ASD.

A higher incidence of pre- and peri-natal problems has been found in children with ASD (Gardener et al., 2009, 2011; Hertz-Picciotto et al., 2014). These include advanced parental age, maternal use of medication, alcohol or drugs, birth order (first- or fourth-born or later), prematurity, post-maturity, early or mid-trimester bleeding, obstetric complications, foetal distress, birth injury or trauma, multiple birth, summer birth, low birth weight, small for gestational age, congenital malformation, low 5-minute Apgar score, and feeding difficulties. There is insufficient evidence to implicate any one factor in ASD aetiology, although exposure to a broad class of conditions reflecting general compromises to peri-natal and neo-natal health may increase ASD risk.

Considerable controversy has surrounded the hypothesis that the process of immunization with the measles, mumps and rubella (MMR) vaccine may lead to ASD. Currently the weight of evidence suggests no causal link between MMR and ASD (Johnstone & MRC Autism Review Group, 2001; Volkmar et al., 2004).

The hypothesis that gastrointestinal difficulties, specifically altered intestinal permeability, can result in nervous system dysfunctions that underpin ASD has led to the development of treatments involving casein and gluten-free diets. There is some evidence to support a 'gut–brain' link in ASD, but little support for dietary treatment of ASD (Hsiao, 2014; Johnstone & MRC Autism Review Group, 2001).

The precise biological characteristics that are genetically transmitted or that develop as a result of congenital infection or obstetric complication and which underpin the clinical features of ASD are still unclear despite extensive research investigating the neuroanatomical, neurochemical and psychophysiological characteristics of people with ASD (Volkmar, Paul et al., 2014). However, four recent findings suggest important areas for future research. First, the brain size of people with ASD is greater than normal, and this difference is greatest in toddlers, whose brain size may be up to 10% greater than normal controls. This enlargement is not present at birth, is not associated with higher IQ and diminishes with age. Second, in people with ASD brain centres for processing emotions (amygdala) and face perception (fusiform face area) are less active than in normal controls, and degree of social disability is correlated with level of activation in the face perception area. Third, in a significant minority of children with ASD (about 30%) there is a dysregulation of the serotonin system. Finally, about a fifth of people with ASD have epilepsy, the onset of which is most common in early childhood or late adolescence.

Two theories for which there is limited support but which have attracted much media attention deserve mention. These are the intense world syndrome theory and the broken mirror theory. The intense world syndrome theory proposes that ASD arises from hyperreactivity and hyperplasticity of local neuronal circuits (Markram & Markram, 2010). This excessive neuronal processing in circumscribed circuits leads to hyperperception, hyperattention, and hypermemory. Excessive neuronal processing may render the world painfully intense when the neocortex and amygdala are affected, leading to social withdrawal. Excessive neuronal learning rapidly locks down the individual into a small repertoire of secure behavioural routines that are obsessively repeated. This theory predicts that reducing stimulation and social engagement is the appropriate treatment for ASD. Currently there are no data to support this prediction. Also, data on sensory functioning of humans with ASD show that both hyper- and hyporesponsiveness can occur, a finding which does not support the intense world theory (Baranek et al., 2014). The only data to support this theory of ASD come from animal studies using the valproic rat model of autism.

The broken mirror theory proposes that a dysfunction of the motor neuron system underpins the social communication deficits in ASD (Iacoboni & Dapretto, 2006; Oberman & Ramachandran, 2007; Williams et al., 2001). The mirror neuron system is the set of brain regions which are active both when a person performs an action and when they observe another person performing the same action. Current data provide only limited support for this theory (Hamilton, 2013; Vivanti & Hamilton, 2014).

Cognitive theories

Cognitive theories of ASD posit central cognitive deficits which may account for some or all of the clinical features and symptoms that characterize the condition. These theories may be classified as narrow band or broad band depending on the magnitude of the cognitive dysfunction that is suggested to underpin the symptoms of ASD (Bailey et al., 1996). There are three theories which identify broader cognitive deficits as central to ASD and there is some evidence to support all three positions. Central coherence theory posits a difficulty with managing information input as the underlying difficulty in ASD. Executive function theory specifies that the main deficit is in problem-solving output. Mindblindness theory and its later developments (empathizing-systematizing theory and extreme male brain theory) proposes that ASD arises from a profile of cognitive strengths and weaknesses.

Happé and Frith (1996) have argued that an underlying problem in ASD is the lack of a strong drive for central coherence. Thus, people with ASD do not have the irresistible urge to make sense of the global features of a situation that most people experience. Thus they process information piecemeal rather than in context. They take a bottom-up rather than top-down approach to managing informational input. They have a preference for local rather than global processing. Available evidence suggests that people with ASD have a bias towards local rather than global processing, and that there is deficit in global processing or a preference to opt for local processing (Happé & Frith, 2006).

Ozonoff et al. (1997) argue that executive dysfunction is central to ASD. Executive functions include the abilities to disengage for the external context, to inhibit unwanted responses, to plan actions, to maintain a cognitive set and stay on task, to monitor performance and use feedback to take corrective action, and to flexibly shift cognitive set. Some evidence supports this theory, although it is not the only deficit in ASD (Ozonoff et al., 2005).

Mindblindness theory, empathizing-systematizing theory, and extreme male brain theory are a series of formulations developed by Baron-Cohen (Baron-Cohen, Wheelwright et al., 2005). Mindblindness theory proposes that the SC deficits of ASD are due to an inability to form cognitive representations of other's mental states, that is to have a theory of mind. This prevents people with ASD from empathizing with others. Empathizing-systematizing theory (an extension of mindblindness theory) proposes that while the SC features of ASD are due to theory-of-mind and empathy deficits, the RRB, obsessional features and islets of ability shown by people with ASD are due to intact or superior systematizing abilities. That is, the ability to work with deterministic systems by analysing input-operation-output relations and inferring the rules that govern such systems. Extreme male brain theory proposes that empathizing deficits and systematizing strengths which characterize ASD are subserved by specific neuroanatomical abnormalities which reflect extremes of typical male neuroanatomy. Male brains are on average larger than female brains and this is accounted for by differences in white matter. There is a greater number of neurons; these are more densely packed; and there is more intrahemispheric white matter projecting from these neurons. Thus, there is greater intrahemispheric connectivity. However the corpus callosum is smaller in male brains, so there is less interhemispheric connectivity. Also the amygdala, which processes emotion, is larger in males and undergoes an early growth spurt. These neuroanatomical sex differences occur in an exaggerated manner in brains of people with ASD and may be due to exposure to atypically high levels of pre-natal testosterone (Baron-Cohen, Knickmeyer et al., 2005). A growing body of evidence supports these theories (Baron-Cohen et al., 2011).

In contrast to these broadband theories, a number of narrow-band theories deserve mention. Hermelin & O'Connor (1970) found that autistic children had difficulties with encoding, sequencing and abstraction and that these differences contributed to their delayed language development.

Mundy and Burnette (2005) argue that a deficit in the capacity to jointly attend to events with others and to preferentially orient towards social rather than inanimate stimuli impairs the development of language, social communication and theory of mind in children with ASD.

Rogers and Benneto (2000) proposed that a deficit in the capacity to imitate others impairs the development of intersubjectivity and executive functioning and that this accounts for language and social deficits in ASD.

Jordan and Powell (1995) have argued that in ASD there is an episodic autobiographical memory deficit which is due to an inability to evaluatively appraise the significance of events related to the self. Children with ASD have difficulty experiencing events as happening to them, so they have problems recalling events as having happened to themselves. They argue that teaching children with ASD should focus on helping them develop evaluative appraisal skills, to attach personal significance to events and to develop episodic autobiographical memory. That is, to operate as if they had an experiencing self.

It seems quite probable that some combination of all of these cognitive deficits accounts for the clinical features of ASD. Future research will aim to clarify this and also the relationship between these cognitive deficits and the neurobiological correlates of ASD.

Motivational theory

Social motivation deficit theory proposes that in ASD there is a lack of sensitivity to social reward and this accounts for the lower preference people with ASD have for social activity including imitation, emotional sharing and joint attention (Dawson et al., 2005). The lack of sensitivity to social reward is due to abnormalities in the social brain circuitry. This includes the fusiform gyrus, which underpins face perception; the amygdala, which subserves emotion recognition; the pre-frontal cortex, which is involved in social cognition; and the superior temporal sulcus, which subserves eye gaze and the perception of biological motion. Social motivation theory has been central to the development of the Early Start Denver Model programme for young children with ASD. This intensive programme prompts and reinforces naturally occurring social responses (imitation, joint attention and emotional sharing) and has been shown to lead to improvements in ASD and social brain circuitry (Rogers & Dawson, 2010).

Assessment

Many of the issues covered in the assessment and management of youngsters with intellectual disabilities apply to ASD, and readers may wish to refer to Chapter 8 in which intellectual disability is discussed. The following approach is based on international best practice guidelines (e.g. NICE, 2011a; Volkmar, Siegel et al., 2014).

Multi-disciplinary assessment. Assessment of ASD should ideally be conducted by a multi-disciplinary and multi-agency team over an extended period of time in partnership with parents. Clinical psychology, educational psychology, paediatric medicine, speech and language therapy, special education, occupational therapy, community nursing and child psychiatry are among some of the disciplines that may be involved in such teams. Both health and education agencies may collaborate in service delivery to families with children who have ASD.

Pacing the assessment. The process of diagnosis is challenging for parents, since it involves making sense of their child's unusual behaviour, giving up the idea that this behaviour is something transitory which the child will grow out of, grieving the loss of the 'normal child' they wished for, and beginning to accept that developing a functional long-term relationship with health and educational services will offer their child the best chance for living a full life. Thus, assessment and diagnosis is best conceptualized as a major family transition, a process that takes time. It is therefore appropriate to spread the interviews and assessments over a number of weeks and adopt a collaborative position during the diagnostic process. This position involves letting the parents know, early in the process, the diagnostic criteria for ASD and other possibilities in the differential diagnosis and then after each investigation discussing with the parents the degree to which the new information fits with the diagnostic criteria. In this way, towards the end of the diagnostic process, parents 'discover' for themselves that their child has ASD. This process should be paced in a way that fosters a good working relationship with parents, so that the transition from diagnosis to case management and treatment planning is smooth. If the assessment and diagnostic process occurs too rapidly, parents may reject the diagnosis and/or enter into unproductive conflict with health and educational professionals about the diagnosis or treatment plan. It is reasonable to spread an assessment over a number of sessions. It is usually inappropriate to conduct the assessment in a single session.

Parental interviews. With the parents, a developmental and family history and routine child and family evaluation following the guidelines set out in Chapter 4 should be completed. It is particularly important to assess the family's capacity to cope with the developmental needs of their child, and their need for additional supports to help them cope. Parental reports of autistic-like behaviour in the areas of SC and RRB may be obtained by routine clinical interview. However, this should be supplemented with a standardized interview such as the Revised Autism Diagnostic Interview (ADI-R). The ADI-R combined with the Autism Diagnostic Observation Schedule – Second Edition (ADOS-2), both of which are listed in Table 9.4, are the best validated standardized assessment instruments for diagnosing ASD (Falkmer et al., 2013). In addition to these ASD-specific instruments, it may be valuable to ask parents to complete one of the adaptive behaviour scales listed in Table 8.3 to throw light on the level of social functioning of the child and the areas of strength and weakness.

Teacher interviews. Where children are attending school, appropriate standardized rating scales from the list given in Table 9.4 (such as the Gilliam Autism Rating Scale) and the school edition of the Adaptive Behaviour Scale which is listed in Table 8.3 may be given to teachers to complete to supplement interview information.

Psychometric assessment of abilities and language. For ASD assessment, the ADOS-2 along with tests of intelligence and language should be administered. With the ADOS-2, a specific module is selected based on the child's age and language use. By combining observational ratings based on the child's performance on a number of standard tasks involving toys, a diagnosis may be made. A list of intelligence tests appropriate to children of different ages is given in Table 8.2. It is important to use an instrument that includes measures of non-verbal abilities such as the revised Leiter International Performance Scale listed in Table 8.4 when assessing children suspected of having ASD, since often they perform particularly well on non-verbal tests. Some language tests that may be used in the assessment of ASD are listed in Table 8.6. If there is a speech and language therapist on the assessment team, usually they conduct the language assessment. Psychoeducational profiles of strengths and weaknesses which may be useful for planning treatment and education programmes may be obtained using instruments such as the revised Psycho-Educational Profile or other such instruments listed in Table 9.4. If the ADOS-2 is not available information from the psychometric assessment and observation of the child during this process may be systematized using the Childhood Autism Rating Scale listed in Table 9.4 which has fairly good sensitivity and specificity as a diagnostic instrument (Falkmer et al., 2013).

Specialist assessments. In addition to parent and teacher interviews and psychometric assessment of the child, a number of specialist evaluations which are outside the remit of the clinical psychologist may be required in the evaluation of children suspected of having ASD. A full paediatric physical examination (including genetic testing for fragile X and other syndromes) should routinely be conducted as part of the multi-disciplinary assessment of a child suspected of having ASD. If seizure activity is suspected, an EEG should be completed to check for the presence of epilepsy. A thorough audiological evaluation may be necessary in cases where children show very limited response to sound to rule out hearing impairment. If possible a home observation session should be conducted to observe the child's behaviour in their natural surrounding.

Table 9.4 Psychometric instruments for screening and assessing young people with ASD

Construct	*Instrument*	*Publication*	*Comments*
Diagnostic instruments	Autism Diagnostic Observation Schedule – Second Edition (ADOS-2)	Lord, C., Rutter, M. et al. (2012) *Autism Diagnostic Observation Schedule – Second Edition (ADOS-2)*. Torrance, CA: Western Psychological Services.	A DSM or I diagnosis be given on the AI which inc five modu each requ 40–60 mi to admini The child given onl module, selected c basis of h her expre language and chronolog from age to adultho The ADC has good psychome propertie
	Autism Diagnostic Interview – Revised (ADI-R)	LeCouteur, A., Lord, C., & Rutter, M. (2003). *Autistic Diagnostic Interview – Revised (ADI-R)*. Torrance, CA: Western Psychological Services.	A DSM-IV c ICD-10 diagnosis be given basis of a minute interview a parent c carer. The ADOS-2

		good psychom propertie
Diagnostic Interview for Social and Communication Disorders (DISCO)	Wing, L., Leekham, S. R., Libby, S. J., Gould, J., & Larcombe, M. (2002). The Diagnostic Interview for Social and Communication Disorders: Background, inter-rater reliability and clinical use. *Journal of Child Psychology and Psychiatry, 43*, 307–325.	This very de interview schedule the full r ASD diag There are limited d its psychom propertie
Autism Spectrum Disorder-Diagnostic for Children (ASD-DC)	Matson, J. L., González, M., & Wilkins, J. (2009). Validity study of the Autism Spectrum Disorders-Diagnostic for Children (ASD-DC). *Research in Autism Spectrum Disorders, 3*(1), 196–206.	This 40-item may be u for diagn ASD in 2 year olds are limite on its psychom propertie
Developmental, Dimensional and Diagnostic Interview (3di)	Skuse, D., Warrington, R., Bishop, D., Chowdhury, U., Lau, J., Mandy, W., & Place, M. (2004). The Developmental, Dimensional and Diagnostic Interview (3di): A novel computerized assessment for autism spectrum disorders. *Journal of the American Academy of Child & Adolescent Psychiatry, 43*, 548–558.	This comput parent interview be used f diagnosin ASD. The limited d its psychom propertie
		Children ma rated on scales tha make up instrume These are relations with peo imitation; affect; us body; rel

Screening instruments for clinical use	Childhood Autism Rating Scale – Second Edition (CARS-2)	Schopler, E., van Bourgondien, M., Wellman, J., & Love, S. (2010). *The Childhood Autism Rating Scale – Second Edition (CARS-2)*. Los Angeles: Western Psychological Services.	to non-hu objects; adaptatio environm change; v responsiv auditory responsiv near rece responsiv anxiety reaction; communi non-verb communi activity le intellectu functioni general impressio Ratings a made afte observati routine psychome ability tes Versions a available high- and functioni children. instrumen good psychome propertie
	Gilliam Autism	Gilliam, J. (2006). *Gilliam Autism Rating Scale – Second Edition*	This rating s for compl by teache parents provides on stereo behaviou communi

Rating Scale – Second Edition (GARS-2)	*(GARS-2)*. Odessa, FL. Psychological Assessment Resources. http://www.parinc.com	social interactio developm disturban There are limited da its psychome propertie
Screening Tool for Autism and Toddlers (STAT)	Stone, W. (2000). *Screening Tool for Autism and Toddlers (STAT).* http://stat.vueinnovations.com/about	Pre-schooler be screen with this item scale making ra of play, requestin directing attention motor im based on minutes o observati The instru has good psychome propertie screener.
Social Communication Questionnaire (SCQ)	Rutter, M., Bailey, A., Lord, C., & Berument, S. (2003). *Social Communication Questionnaire*. Los Angeles: Western Psychological Services.	This 40-item questionn derived fr the ADI-l useful scr instrumen pre-schoo school-ag children, adequate psychome propertie
		This screenin instrumen be used in

	Revised Modified Checklist for Autism in Toddlers (MCHAT-R/F)	Robins, D., Casagrande, K., Barton, M., Chen, C., Dumont-Mathieu, T., & Fein, D. (2014). Validation of the Modified Checklist for Autism in Toddlers, Revised with follow-up (M-CHAT-R/F). *Paediatrics, 133*, 37–45.	primary settings children 2. It is a 2 parent-re instrume contains additiona follow-up questions are asked interview case scree positive initial 20 The instru has good psychom propertie screener.
Instruments for assessing educational skills	Psycho-Educational Profile – Third Edition (PEP-3)	Schopler, E., Lansing, M., Reichler, R., & Marcus, L. (2005). *Psychoeducational Profile – Third Edition (PEP-3)*. Austin, TX: Pro-Ed.	This set of a scales for year old children scores on imitation, perceptio motor, ey hand integratio cognitive performa and cogn verbal. T are also maladapt behaviou problem behaviou scales wh give ASD diagnosti informati

TEACCH Adolescent and Adult Psycho-Educational Profile (AAPEP)	Mesibov, G., Schopler, E., & Caison, W. (1989). *Adolescent and Adult Psycho-Educational Profile (AAPEP).* Austin, TX: Pro-Ed.	This assessm package includes l and schoo based che and a set performa tasks whi administe tests and from dire observati
Autism Screening Instrument for Educational Planning (ASIEP)	Krug, D., Arick, J., & Almond, P. (1996). *Autism Screening Instrument for Educational Planning – Second Edition.* Odessa, FL: Psychological Assessment Resources.	This kit inclu an autism behaviou checklist, method f rating a s of vocal behaviou method f rating soc interactio method f making a education assessme a method assessing prognosis learning.

Differential diagnosis. Information from involved professionals may be pooled with three aims in mind. First, the degree to which the child meets the diagnostic criteria for ASD listed in Table 9.1 must be determined. Second, the confidence with which alternative diagnoses may be ruled out must be assessed. Third, the child's areas of strength and weakness need to be identified, and the implications of this profile for planning treatment and education needs to be established. The following conditions should be included in the differential diagnosis of ASD (van Engeland & Buitelaar, 2008; Volkmar, Siegel et al., 2014):

- severe hearing impairment
- intellectual disability

- developmental language disorders
- selective mutism
- obsessive-compulsive disorder
- reactive attachment disorder in response to severe neglect
- childhood psychosis
- Landau-Kleffner syndrome

An audiological examination may be used to rule out severe hearing impairment. Deaf children who do not have ASD can usually make eye contact and engage in sign-based reciprocal social interaction. Children with intellectual difficulties but who do not have ASD do not show deficits in reciprocal social interaction and their language development is typically consistent with their overall level of intellectual ability. Children with developmental language problems do not show the SC or RRB problems that typify children with ASD. In contrast to the pervasive problems associated with ASD, normal interpersonal interactions, language development and behaviour within the context of the home characterize children who have selective mutism, although at school or in places other than the home they typically do not speak. Children with OCD engage in repetitive rituals and may be obsessed with particular objects. However, they tend not to like their rituals and show normal language development and social behaviour, unlike children with ASD. The similarities between some children who have suffered severe neglect or psychosocial deprivation and developed reactive attachment disorder and those with ASD may be quite marked. For example, severe psychosocial deprivation may lead to language delay, unusual interpersonal behaviour and stereotyped behaviour patterns. However, such children tend to make appropriate use of what language they have to engage in reciprocal social interaction, and their behaviour and communication tends to normalize gradually when placed in a normal social environment. Children with childhood psychosis typically have a history of relatively normal development prior to the onset of the condition. They also do not show the language comprehension difficulties typical of ASD. Landau-Kleffner syndrome (or acquired aphasia with epilepsy) may mimic autism and involve some SC and RRB features. However, the history is distinctive. These children have a history of normal development. They then lose receptive and expressive language and develop epileptic seizures or show EEG abnormalities.

Co-morbidities. Throughout the assessment process, it is important to be aware that co-morbid conditions may occur in children with ASD including ADHD, oppositional defiant disorder (or challenging behaviour), anxiety and mood disorders, OCD, tics, sleep disorders, enuresis, encopresis, gastrointestinal problems and epilepsy. Where these conditions are suspected they require assessment and formulation in the manner outlined in other relevant chapters of this volume.

Profiling. In profiling strengths and weaknesses of youngsters with ASD it may be useful to categorize them under the following headings (which are not mutually exclusive) for the purposes of treatment planning:

- communication skills and language development
- problem-solving abilities, academic and life skills
- challenging behaviours such as aggression or self-injury
- co-morbid conditions requiring treatment
- family's coping resources.

These broad categories for profiling strengths and weaknesses map onto the main classes of goals of comprehensive treatment programmes which are to enhance communicative skills, foster the development of problem-solving and life skills, decrease challenging behaviours, treat co-morbid conditions and help parents to cope with ASD.

Treatment

There is no cure for ASD. At best, youngsters with this condition may be helped to develop skills to partially compensate for their SC and RRB deficits, and parents may be helped to cope with their children more effectively so that youngsters and their families can lead as normal a life as possible. The approach outlined here is based on international best-practice guidelines (National Autism Centre, 2009; NICE, 2013a; Volkmar, Siegel et al., 2014). Comprehensive programmes which exemplify best practice involve the following components:

- psychoeducation in which parents are given information about their child's diagnosis, prognosis and available services
- advice and support in arranging educational placement
- family-based approach to long-term management
- structured teaching as a central method for designing learning activities
- behaviour modification as a central approach for teaching skills and dealing with challenging behaviour
- self-care, social and educational skills training
- communication skills training and speech and language therapy
- management of challenging behaviour (including pharmacological and psychological approaches)
- treatment of co-morbid conditions
- respite care
- planning for life transitions.

Psychoeducation. The first step in treatment is explaining the diagnosis and making the disorder coherent to parents. The following points may be useful in explaining ASD. ASD is a disorder which is caused by biological factors that are poorly understood. It is a chronic lifelong neurodevelopmental disability, not a time-limited emotional reaction to a stressful family situation. The brains of children function differently to those of other people. This causes a number of basic problems. Children with ASD cannot guess what others are thinking or feeling and so cannot predict the behaviour of others, understand the impact they have on others, understand emotions, or understand humour. They see the world in a lot of detail and have great difficulty focusing on the 'big picture'. They also do not have the same drive to socialize that other people have. They also have a strong wish to maintain predictable routines and to live in an orderly world. In addition many are very sensitive to sound, light or touch. These core difficulties make it hard for them to share attention with others and jointly watch an event. They make it difficult for ASD children to show warmth towards others, to empathize with others, to communicate effectively, to hold conversations which involve turn-taking and respecting the other person's viewpoint, and to flexibly adapt to changing circumstances. The desire for predictability may lead to the development of rigid routines and habits that involve repetition. This desire for predictability may also lead to little creativity. People with ASD also have difficulty developing a conscience, since this involves imagining the effect that their actions have on others. The difficulty that people with ASD have in imagining what others think means that they may find other people (who they view as unpredictable) very threatening, particularly if they disrupt their routines. This may lead to aggression towards others who attempt to change their routines. Often this aggression is expressed in an extreme way since the child with ASD has little awareness of the impact the expression of aggression has on others. Repetitive self-harm, since it is highly predictable, may be experienced as desirable or pleasurable. Reacting aggressively to normal levels of visual, auditory and touch stimuli or withdrawal, rocking, or other self-soothing routines may be used to cope with heightened sensitivity to sensory stimulation.

In the long term, with structured teaching and skills training, youngsters with ASD can learn to communicate with others, care for themselves, avoid challenging behaviour, and manage productive work routines, provided a highly structured approach to teaching is taken which takes account of their need for a highly predictable environment. The degree of independence they gain as adults is dependent upon the level of structured teaching they receive as children.

Educational placement. A central issue in the treatment of youngsters with ASD is whether they should be placed in special schools exclusively for children with ASD or whether they should be placed in mainstream schools attended by children without disabilities and provided with additional support (Martins et al., 2014; Schoen Simmons et al., 2014). Few comparative data are available on which approach is more effective. So policy and practice decisions on this issue are influenced by ethical and pragmatic considerations. Ethically, there is widespread agreement that children with disabilities such as ASD should be provided with every opportunity to live as normal a life as possible, and for this reason ASD children should be educated in mainstream schools with additional support provided. However, pragmatically, it is often difficult to arrange for sufficient support within mainstream schools to be provided to allow a child with ASD to received an adequate education within that context. It is often easier to centralize the special educational resources required for children with ASD. Of course, national policy, the views of ASD advocacy groups, and the way in which funding from statutory and voluntary sources are allocated all determine the availability of mainstream or centralized special educational placements.

For pre-school and school-aged children with autistic spectrum disorders, optimal programmes have certain key features (Lord & National Research Council, 2001). These include early entry into the programme (at 2 or 3 years); participation in the programme for at least 25 hours per week, 12 months per year; engagement in repeated, brief structured learning activities using an evidence-based teaching approach; the use of teaching methods that capitalize on children's strengths to overcome their weaknesses; adequate staff training to be able to deliver an evidence-based teaching programme; a curriculum that is developmentally appropriate and covers an appropriate mix of communication, social, play and academic skills training; access for pupils to a supervised comfortable low-stimulation environment as required when over-stimulated; low pupil–staff ratio (2:1 maximum); an evidence-based approach to managing challenging behaviour; inclusion of parents in setting educational goals and working with school staff to help their children achieve these; regular assessment of goal attainment and modification of the teaching programme in light of re-assessment; and the statement of children's educational goals in observable measurable terms.

Family-based approach to management. The emphasis in effective programmes is on a collaborative working relationship with parents (Fiske et al., 2014; Lord & National Research Council, 2001; Reichow et al., 2011; Wall, 2004). Parents must be centrally involved in developing individual educational and therapeutic programme plans and collaboratively involved in their delivery. It is also acknowledged that parents require support from professionals and parents of other children with ASD to help them work through the grief process associated with adjusting to having a child with this disability. A fuller discussion of this issue is contained in Chapter 8 in relation to intellectual disability, and grief processes are discussed in detail in Chapter 24.

The best results have been obtained where parents are involved in intensive structured educative programmes such as the TEACCH (Treatment and Education of Autistic and related Communication handicapped CHildren) programme developed by Schopler's group or in intensive behavioural training programmes such as those developed by Lovaas's team based on the principles of applied behavioural analysis (Volkmar et al., 2011). In both instances, professionals train and support parents to provide an environment for their child which promotes skills development.

Early Bird – a programme developed by the National Autistic Society for helping parents of autistic children – is widely used in the UK (Shields, 2001). It includes eight weekly psychoeducational training sessions and a manual for parents which gives reliable information on ASD. These group-based sessions also provide parents with support. In the Early Bird programme, a couple of home visits are conducted in which video feedback is used to help parents develop appropriate communication and child management skills. Parents learn to use the PECS, a pictorially based way of communicating with autistic children (Bondy & Frost, 1994); the TEACCH structured learning programme developed by Schopler and colleagues (Mesibov et al., 2005); and how to use HANEN routines for promoting early parent–child interaction and facilitating language development (Sussman, 1999). Details of the Early Bird, PECS, TEACCH and HANEN programme materials are available at their websites listed at the end of this chapter.

Structured teaching. Schopler and the group that developed the TEACHH system place structured learning at the heart of their very comprehensive approach to ASD (Mesibov et al., 2005). The TEACHH approach aims to make the world intelligible to the autistic child by acknowledging deficits (such as communication problems and difficulties in social cognition) and structuring learning activities so that they capitalize upon the strengths of children with ASD. Children with ASD have excellent visual processing abilities and good rote memory abilities, and many have unique special interests. Thus, learning activities should be structured so that the child can visualize what is expected to achieve success. Activities should depend upon memory for sequences of tasks, and the content of the tasks should capitalize upon any special interests that the child has shown. So for example, where language development is delayed photographs of stages of task completion should be used rather than extensive verbal instructions. If the child is interested in toy cars, then these may be used to teach counting or language.

Schopler's group use a system where two clinicians work with each case: one is designated the child therapist and the other is the parent consultant. At each clinical contact, the child therapist works directly with the child developing a written programme of home teaching activities for the parent to carry out each week. Concurrently the parent consultant works with the parent reviewing and planning future child management strategies for developing productive routines and managing challenging behaviour. Parents are invited to observe the programmes developed by the child therapist and practice these with the child at home for about 20 minutes per day. Typical programmes involve four or five activities selected to match the child's profile of strengths and weaknesses. Schopler and his group have catalogued the types of activities that may be included in such programmes in a series of publications and videotapes which are available at the TEACCH website listed at the end of this chapter.

Parents are advised to develop highly structured work routines with their children. The same time and place for work should be used each day and the environment should be free of distractions. Materials for tasks to be completed should be placed on the left and when the work is finished, the materials should be stored in a tray on the right marked *finished*. Parents are shown how to model all activities for their children and then to instruct them and give feedback in simple language. This highly structured approach capitalized upon the affinity that children with ASD have for sameness and their resistance to changes of routine.

Behavioural treatment. Behaviourally based treatment programmes have been shown to lead to significant skills gains and reductions in challenging behaviours in controlled studies (Reichow, 2012). Within these programmes, on the basis of a broad developmental analysis of skills and deficits and a fine-grained behavioural analysis of skill use or lack thereof in particular situations, a set of highly specific treatment goals are established and behavioural methods for achieving these specified. Common treatment goals include reducing ritualistic and aggressive or self-injurious behaviour and enhancing communication, interaction, play, cognitive skills and self-care skills. Parents and school staff or other involved front-line professionals such as nurses or childcare workers are trained to implement these programmes. Some examples of typical problems and behavioural treatment strategies for the domains of communication, skills development and challenging behaviour are presented in Table 9.5.

Within the broad field of applied behaviour analysis, a distinction may be made between trainer-led, discrete trial training and child-led, naturalistic or milieu approaches. With discrete trial training, complex skills are taught in one-to-one training sessions by breaking them down into multiple simpler components. Prompting, shaping, chaining and reinforcement processes are used to facilitate skill acquisition. With naturalistic approaches, parents and teachers reinforce spontaneous self-initiated responses in normal home and school settings. Naturalistic approaches lead to greater generalization of skills to new situations, compared with discrete trial training, but the latter may be particularly appropriate where self-initiated behaviour rarely occurs (Delprato, 2001).

The behavioural programme for which best evidence of efficacy is available is Ivar Lovaas's Young Autism Programme (Reichow & Barton, 2014). Details of Lovaas's programme are available at his website listed at the end of this chapter. Within the programme pre-school children aged 2–5 years receive about 40 hours of one-to-one therapist-delivered behavioural intervention per week in addition to parent-delivered intervention in their home environment. Broad goals are broken down into small behavioural targets and discrete trial training is used to help children develop skills. Here, in a one-to-one situation, therapists give short simple instructions, carefully prompt (and later fade out prompts) for the target skill being taught, give immediate reinforcement for appropriate responses or approximations to these. There are six stages to the programme. In the first stage a teaching relationship is established. This is very challenging for therapists, parents and supervisors since attempts to directly instruct autistic children usually lead to avoidance or escape behaviour often involving aggression or self-injury. The therapist selects a simple target behaviour such as sitting on a chair or putting a brick in a bucket and reinforces all approximations to this, while not reinforcing avoidant or escape behaviour. In the second stage, which may last up to four months, foundational skills are taught and these include receptive language skills such as coming to the therapist on request, imitating gross motor action such as clapping or waving, imitating fine motor actions such as facial expressions, matching and sorting objects into categories, and basic self-care skills such as dressing. Generalization is facilitated by arranging for the child to complete skills in therapeutic and home environments with prompts and reinforcements given by parents and other members of the child's social network. In the third stage, which may last more than six months, the focus is on expressive communication skills and advanced self-care skills including toileting. With expressive communication, children are taught to make speech sounds first, then to form words and finally to make sentences. Where children do not develop expressive language, written or pictorial communication may be used. In the fourth stage, which may last a year, children gradually enter normal pre-school classes, beginning with as little as 10 minutes per day pre-school. In one-to-one out-of-class sessions children are taught play and pretend skills and age appropriate peer activities such as singing songs, saying rhymes and playing games. These skills help them adjust to the normal pre-school situation. Children enter normal pre-schools rather than special pre-schools because they contain children who can act as good role models and teachers with relatively high expectations. These two factors facilitate development. In the fifth stage, which may last more than a year, children learn to use advanced language skills, advanced interaction skills (including understanding other people's perspectives), and life skills such as helping with chores. The pre-school teacher plays an increasing role in prompting and shaping new skills. In the sixth stage children make the transition from pre-school to normal primary school, if they have developed sufficient skills to do so. Teachers rather than therapists take an increasing role in instructing children. However, if children do not make progress, they repeat the first year of primary school. Some children go on to complete normal primary school and some are placed in special educational placements.

Table 9.5 Examples of behavioural treatment strategies for managing problems presented by young people with ASD

Domain	*Problem*	*Treatment strategy*
Skills development	Impaired understanding	Simplified communication; selection of materials at appropriate developmental level; break down large task into small steps
	Lack of initiative	Structured learning with child selected materials and tasks that

	Lack of initiative	maximize probably of success to maximize motivation
	Lack of persistence	Immediate intermittent natural reinforcement for successful performance and unsuccessful attempts
	Lack of generalization	Train the skill in multiple contexts and use prompts to remind the child that the skill has been learned
Language and communication	Lack of language skills	Direct instruction in language use
	Failure to use language socially	Instruction in sign language Modelling and coaching Differential reinforcement Focus on communication rather than speech
	Lack of conversational reciprocity	Coaching in reciprocal conversation
	Social isolation	Planned periods of interaction
Challenging behaviour	Aggressive or self-injurious response to identifiable environmental changes	Remove precipitating stimuli or desensitize child to these
		Coach the child in self-control skills and reinforce the use of these to manage challenging behaviour
	Apparently unprovoked aggressive or self-injurious behaviour initiated to get something or to avoid something	Coach in skills necessary to get desired reinforcer or avoid negative stimulus (if this is appropriate)
		Desensitize child to avoided stimulus and reinforce the child for approaching it
		Use time-out or restraint as an adjunct to all of the above

The programme is staff intensive and four levels of staff are involved: student therapists, senior therapists, case supervisors and programme directors. All staff, including student therapists, are highly trained in the principles and practice of social learning theory and applied behaviour analysis. Interventions teams containing about five student therapists, a senior therapist, a supervisor and director are assigned to each child. Each student therapist works more than five hours per week with a child and attends a 1-hour meeting with the family, senior therapist, supervisor and director. After 6 months student therapists who have developed adequate clinical skills may become senior therapists. After 1,500 hours of practice and demonstrating a high level of clinical skill senior therapists may become supervisors. Programme directors usually have a doctorate in clinical psychology. Parents play a central role in the programme. They are involved in preliminary assessment, work 5 hours a week with the therapist in the first stage of treatment, and help implement skills training generalization routines throughout the programme. They are also involved in organizing the transition into pre-school and school and work collaboratively with programme staff in this regard.

Children with autism have difficulty generalizing responses learned in a one-to-one discrete trial training situation, to routine peer group, classroom and family social contexts. It is this observation that has informed the development of child-led, naturalistic or milieu approaches where spontaneously initiated communicative or social responses are selectively reinforced in the child's normal social environment. Pivotal response training is a particularly well developed and empirically supported naturalistic, applied behavioural analysis approach (Koegel & Koegel, 2006; Koegel et al., 2010). Other approaches in this category include natural language paradigm and incidental teaching. In pivotal response training, children are taught to increase the competence and frequency with which they produce self-initiated responses. Training is conducted by parents and teachers or key workers using natural stimuli in routine home or school situations, rather than in one-to-one situations with artificial stimuli such as flash cards. Important pivotal responses in ASD include behaviours which indicate that the child is motivated to communicate or interact with others, and self-initiated positive communicative or interactive behaviours. In pivotal response training, the frequency of pivotal responses is increased by providing children with choices or making a range of activities available to them, reinforcing pivotal responses or attempts at producing them using natural and direct reinforcers, and interspersing the learning of new responses with opportunities to be reinforced for producing previously learned responses.

Rogers and Dawson's (2010) Early Start Denver Model is an example of pivotal response based programme. Behavioural training methods are used to reinforce a series of developmentally staged spontaneous pivotal behaviours in three classes: imitation, emotion sharing and joint attention. The programme involves 15 hours of home-based intervention per week, ideally for 2 years, and leads to significant improvement in all aspects of ASD.

Skills training. Children with ASD may have a variety of difficulties in learning self-care, social and academic skills (Luiselli et al., 2008). In all instances the curriculum materials should be matched to the child's developmental stage. Where low IQ or limited language usage prevents or impairs the child's understanding, simplified verbal or pictorial communication methods may be used. Large tasks should be broken down into smaller more manageable tasks that make success more likely. Where children show a lack of initiative, they should be encouraged to choose the learning materials in which they are most interested, and the tasks should be structured so as to maximize success. So if the child is learning a new skill, trials of learning the new unfamiliar skill should be interspersed with trials of executing related skills that have already been mastered. Where children show a lack of resistance in learning a new skill, reinforcement should be arranged so that it is delivered intermittently, on a variable interval or ratio schedule. However, when it is delivered, the child should receive it immediately, and naturally occurring reinforcers rather than contrived reinforcers (such as sweets or candy) should be used. Generalization of skills learned in one context to multiple contexts is a major problem in the education of children with ASD. Ideally, children should be encouraged and prompted to exercise newly learned skills in many different environments and reinforced for doing so, since this maximizes the chances of generalization occurring.

For social skills training, peer-mediated interventions, video modelling training and social stories have all been shown to lead to clinically significant improvements in social skills (Bellini et al., 2014). In peer-mediated interventions, normally developing peers are trained and reinforced for interacting with children with ASD. With video modelling training, children with ASD observe a brief video of person performing a particular social skill, and then they imitate this and are reinforced for doing so correctly. With social stories the person with ASD reads or listens to a social story which helps them to understand and manage a confusing or challenging social situation (Gray, 2000). Social stories contain (1) descriptive sentences which objectively outline the situation and who is involved; (2) perspective sentences which specify internal states of relevant people; (3) directive sentences which indicate what is expected of the person with autism in the situation; (4) affirmative statements which express relevant cultural norms; (5) co-operative statements about who will provide help; and (6) control sentences which help the person with autism remember the story in the relevant situation and prepare their response.

Communication training. In the domain of language and communication, the speech and language curriculum should be geared to the developmental level of the child. If there are some language skills, these may be built upon. But where all linguistic skills are absent, then sign language may first be taught since this may promote the later development of speech (Mirenda, 2014). Alternatively the PECS may be used to help children communicate their needs pictorially (Bondy & Frost, 1994). Coaching involving modelling, encouragement, reinforcement and feedback for both effort and successive approximations within a moderately structured setting for brief periods of up to thirty minutes per day may be used. Where children have speech and language skills but do not use them within a social context, modelling and reinforcement of all communicative attempts within a naturalistic setting may be used to increase social speech and communication. Initially, the emphasis should be on communication rather than speech. Where children do not initiate and sustain reciprocal social interactions with others, periods of interaction with teachers, parents and peers need to be planned, attempts at social interaction should be prompted and all efforts or approximations to conversation reinforced.

The refinement of communication skills such as the appropriate use of intonation, non-verbal gestures, and the correction of echolalia, pronominal reversal and speech idiosyncrasies may also be achieved through behavioural training using the coaching methods described earlier. Video modelling and video feedback may be useful aids in this process. However, this is a long and arduous process because of the way the child with ASD views the self and others. Children with ASD cannot understand social signals such as smiles or other non-verbal gestures. They must learn about social rules and then learn to apply them. This is much like an adult learning a second language, which is necessarily a slow process. It was noted earlier that Jordan and Powell (1995) argue that in ASD, there is an episodic autobiographical memory deficit. This is due to an inability to evaluatively appraise the significance of events related to the self. Children with ASD therefore, have difficulty experiencing events as happening to them, so they have problems recalling events as having happened to themselves and communicating these to others in reciprocal social interactions. On this basis, Jordan and Powell argue that teaching children with ASD should focus on helping them develop evaluative appraisal skills so that they attach personal significance to events and so develop episodic autobiographical memory. The development of such a memory, by prompting and coaching in recalling and recounting significant events that have happened to them each day, may provide a basis for greater reciprocal interaction.

The Child’s Talk project is an evidence-based ASD communication programme from the UK in which parents receive psychoeducation and training in specific parent–child communication skills (Aldred et al., 2004). Parents are trained to enhance parent–child joint attention to facilitate the development of children’s capacity for social referencing. Parents are shown how to replace intrusive parental demands with sensitivity and responsivity to children’s ongoing actions by providing an accurate and supportive commentary on their children’s behaviour. Parents are trained in how to show children the way language can be used to achieve pragmatic goals, by translating their children’s non-verbal communications into simple words. Parents are also shown how to consolidate their children’s understanding by using repetitive and predictable language scripts in specific contexts to communicate specific meanings and intentions. The programme also includes coaching parents in using teasing, pauses and openings to encourage variations and expansions of their children’s language and play and to expand children’s language repertories. Parents and pre-school children in the Child’s Talk programme attend monthly sessions for 6 months and then less frequent sessions for a further 6 months. Video feedback is used to coach parents in communication training skills. They are invited to schedule daily 30-minute sessions to use these skills to coach their children in the development of communication skills.

Challenging behaviour. The management of challenging behaviour in cases where children have intellectual disabilities is discussed in Chapter 8, and it was noted there that the first step in the management of aggression or self-injury is to conduct a thorough functional analysis (O'Neill et al., 2014). In conducting such an analysis in cases of ASD, a number of additional points need to be taken into account. First, children with ASD perceive many situations that might be non-threatening to others as particularly threatening or distressing. These situations include disruption of their routines or insistence that they transfer their attention from one activity to another. Second, children with ASD cannot guess what others are thinking and predict how they will behave, so most of the time children with ASD find the behaviours of others unpredictable, confusing and potentially distressing. Third, children with ASD are unable to clearly predict or understand the impact that intense displays of aggression or self-injury have on others. Fourth, children with ASD have difficulty regulating and controlling their own emotions including the display of aggression. Fifth, repetitive self-injury (such as head-banging), probably because it is predictable in its effects, may be intrinsically reinforcing for some children with ASD. Sixth, over-sensitivity to stimuli may lead autistic children to react aggressively to what for other children would be normal levels of visual, auditory or touch stimulation.

In all cases where challenging behaviour is occurring, a thorough functional analysis should first be conducted. Where challenging behaviours typically occur in response to identifiable environmental stimuli, in some instances such stimuli may simply be removed. However, in many instances this is not possible because the stimulus is a necessary part of the child's environment, such as transition from one task to another or from home to school. In these instances, if the child is frightened of the stimulus they may be desensitized to it. If they feel unable to cope with it, they may be coached in coping behaviours, such as predicting the occurrence of the stimulus, relaxing themselves or distracting themselves when the stimulus is present, and then they may be reinforced for coping with the stimulus.

While some episodes of challenging behaviour are clearly a response to a discriminative stimulus, others occur so that the child may *get something* or *get out of something*. Where challenging behaviours are used to help the child gain something (such as attention) some functionally equivalent but less destructive skill may be taught to the child as a way of obtaining the desired reinforcer. Where the challenging behaviour is a way of avoiding a feared situation, the child may be desensitized to it and reinforced for coping with the feared stimulus when it occurs. Alternatively the child may be helped to develop less destructive ways of avoiding the feared situation, if this is appropriate.

Psychopharmacological treatment. Medication is used in the treatment of children with ASD (Politte et al., 2014; Rossignol & Frye, 2011; Scahill et al., 2014). Best practice is to use medication only when psychological interventions have been given a reasonable trial and shown to be ineffective (NICE, 2013a). In the past haloperidol was widely used to treat challenging behaviour associated with ASD. However, the extrapyramidal side effects and long-term risk of tardive dyskinesia are major drawbacks of haloperidol, which has now been superseded by newer neuroleptics, notably risperidone and aripiprazole. A low dose of risperidone has been shown to be effective for reducing aggression in children with ASD. Melatonin is helpful in the treatment of sleep problems in young people with ASD. For anxiety and OCD symptoms there is some evidence in selected cases for the effectiveness of selective serotonin reuptake inhibitors (SSRIs), however SSRIs have no impact on the core symptoms of ASD. Psychostimulant medication, notably methylphenidate, has been shown to reduce hyperactivity in children with ASD, although it may exacerbate stereotyped behaviour. Non-stimulant treatments for ADHD (e.g. clonidine and atomoxetine) have also been shown to improve symptoms of inattention and over-activity in young people with ASD. Anticonvulsants are widely used to control epilepsy is ASD. There is little evidence for the effectiveness of anticonvulsants (such as carbamazepine or sodium valproate) for mood stabilization in ASD. There is little evidence for the efficacy of secretin or vitamins in the treatment of ASD, although proponents of such treatments have made unfounded claims for their effectiveness (Hyman & Levy, 2011; Smith et al., 2014).

Treatment of comorbid conditions. Where children with ASD have comorbid psychological conditions such as ADHD, anxiety and mood disorders, OCD, tics, sleep disorders, enuresis or encopresis these conditions may be assessed, formulated and treated using the approaches outlined elsewhere in this volume. These programmes will require adaptation to suit the distinctive characteristics of children with ASD. Adapted cognitive-behavioural therapy (CBT) anxiety and anger management programmes for use with high-functioning older children and adolescents with ASD may also be considered (Scarpa et al., 2013).

Respite care. Where the demands of caring for a child with ASD periodically outstrip the family's coping resources, respite care may be arranged.

Planning for life transitions. Life transitions from pre-school to primary school, from primary to secondary school, and from child and adolescent services to adult services are particularly stressful for young people with ASD and their families, since a cardinal clinical feature of ASD is resistance to change (Bauminger-Zviely, 2014; Chawarska et al., 2014; Koegel et al., 2014). At each of these life transitions, an important clinical intervention is helping young people and their families prepare for these transitions. This may involve individual and family sessions as well as network meetings with members of relevant educational, disability, health and social care agencies.

Ineffective or unproven treatments. The effectiveness of number of popular treatments has been tested and results have been negative or inconsistent. These include sensory integration training, facilitated communication, gluten- and casein-free diets, omega-3 fatty acids, vitamins, chelation and immunoglobulin (National Autism Centre, 2009; Smith et al., 2014; Volkmar, Siegel et al., 2014).

Summary

ASD, which includes autism, Asperger's syndrome and other pervasive developmental disorders entails substantial social, communicative and behavioural problems. The majority of children with these disorders are unable to lead independent lives as adults. While ASD is present from birth, Rett's and Heller's syndromes, which are similar in symptomatology to ASD, emerge during the pre-school years after a period of relatively normal development. The prevalence rate for ASD is 66 per 10,000 and is more common in boys. While psychogenic aetiological theories of ASD were popular in the past, the available evidence now suggests that ASD is a neurodevelopmental disability rather than an emotional reaction to a stressful family environment. A number of cognitive deficits and a social motivation deficit have been implicated in the development of autistic symptomatology. Currently there is no cure for ASD. Diagnostic and compensatory treatment programmes are the principal type of intervention offered by clinical psychologists as members of multi-disciplinary and multi-agency teams. The early and accurate identification, evaluation and management of children with these problems is essential. Clinicians work in partnership with parents to enhance children's communicative skills, foster the development of problem-solving skills and decrease challenging behaviours.

Exercise 9.1

Work in pairs. Read the case study in Box 9.1, the diagnostic criteria in Table 9.1 and the clinical features in Table 9.2. On the basis of the information given in Box 9.1 list the clinical features that Barry showed and the behaviours he exhibited which fit with the diagnostic criteria for ASD.

Further reading

Prelock, P., & McCauley, R. (2012). *Treatment of autism spectrum disorders. Evidence-based intervention strategies for communication and social interactions*. Baltimore, MD: Brookes. (With DVD showing treatments in action.)

Reichow, B., Doehring, P., Cicchetti, D., & Volkmar, F. (2011). *Evidence-based practices and treatments for children with autism*. New York: Springer.

Scarpa, A., Williams White, S., & Tony Attwood, T. (2013). *CBT for children with high functioning autism spectrum disorders*. New York: Guilford.

Volkmar, F., Paul, R., Rogers, S., & Pelphrey, K. (2014). *Handbook of autism and pervasive developmental disorders. Volume 1: Diagnosis, development, and brain mechanisms. Volume 2: Assessment, interventions and policy* (4th ed.). Chichester: Wiley.

Further reading for families of autistic children

Attwood, T. (2008). *The complete guide to Asperger's syndrome*. London: Jessica Kingsley.

Gillberg, C. (2002). *A guide to Asperger syndrome*. Cambridge: Cambridge University Press.

Grandin, T., & Scariano, M. (1986). *Emergence, labelled autistic*. London Costello. (Biographical account of autism.)

Harris, S., & Glasberg, B. (2012). *Siblings of children with autism: A guide for families* (3rd ed.). Bethesda, MD: Woodbine House.

Howlin, P. (1998). *Children with autism and Asperger's syndrome. A guide for practitioners and carers*. Chichester: Wiley.

Jordan, R., & Powell, S. (1995). *Understanding and teaching children with autism*. New York: Wiley.

Maurice, C. (1993). *Let me hear your voice*. New York: Knopf. (A mother's story of children's recovery following behavioural treatment.)

Vermeulen, P. (2000). *I am special. Introducing children and young people to the autistic spectrum disorder*. London: Jessica Kingsley.

Volkmar, F., & Wiesner, L. (2009). *A practical guide to autism: What every parent, family member, and teacher needs to know*. Hoboken, NJ: Wiley.

Williams, D. (1992). *Nobody nowhere*. London: Doubleday. (Biographical account of autism.)

Wing, L. (1996). *The autistic spectrum: A guide for parents and professionals*. London: Constable.

Websites

Autism New Zealand: http://www.autismnz.org.nz

Autism Society Canada: http://www.autismsocietycanada.ca

Autism Society of America: http://www.autism-society.org/

Center for the study of autism: http://www.autism.org

Hanen Centre for early language intervention: http://www.hanen.org/Home.aspx

Lovaas Institute for Early Intervention – Applied Behaviour Analysis for autism: http://www.lovaas.com/

National Autistic Society, UK: http://www.autism.org.uk

Picture Exchange Communication System: http://www.pecs.com/

TEACCH structured learning for autism: http://teacch.com/about-us/what-is-teacch

Temple Grandin's first person account website: http://www.templegrandin.com/

Section 3

Problems of middle childhood

Chapter 10

Conduct problems

Conduct problems constitute a third to a half of all clinic referrals (Kazdin, 1995; Moffitt & Scott, 2008; Murrihy et al., 2010; Scott, 2009). One of the most common referrals in child and family psychology is a boy in middle childhood who presents with conduct problems, specific learning difficulties and related family and school problems. Conduct problems are the single most costly disorder of childhood and adolescence for three reasons. First, they are remarkably unresponsive to treatment. Positive outcome rates for routine treatments range from 20–40%. Second, about 60% of children with conduct problems have a poor prognosis. A summary of some of the adult outcomes for children with conduct disorder is presented in Table 10.1. From this table it is apparent that a significant number of children with conduct disorder turn to adult criminality and develop anti-social personality disorders, alcohol-related problems and a variety of psychological difficulties. They also have more problems with health, educational attainment, occupational adjustment, marital stability and social integration. The third reason for the high cost of conduct problems is the fact that they are inter-generationally transmitted. Adults with a history of conduct disorder rear children with a particularly high prevalence of conduct difficulties.

A typical case example of a youngster with a conduct problem is presented in Box 10.1. In this chapter, after considering the classification, epidemiology and clinical features of conduct problems, a variety of theoretical explanations concerning their aetiology will be considered along with relevant empirical evidence. The assessment of conduct problems and approaches to their treatment in childhood and adolescence will then be given. The chapter will conclude with some ideas on how to prevent conduct problems in populations at risk.

Classification

Any system for classifying conduct problems must take account of the extraordinary variability that occurs among youngsters with such difficulties (Barry et al., 2013; Frick & Nigg, 2012; Lahey & Waldman, 2012). Available research suggests that variability in conduct problems occurs along the following axes:

- severity, from mild and infrequent to severe and frequent
- chronicity, from recent to long-standing
- pervasiveness, from home-based to home-, school- and community-based
- age of onset of problems, from childhood onset to adolescent onset
- the presence of callous unemotional traits
- peer influences on conduct problems, from peer-group-based socialized conduct problems to solitary conduct difficulties
- the level of deceit involved, from overt aggression to covert stealing and lying
- the presence of co-morbid ADHD or depressive symptoms.

Table 10.1 Outcome for adults identified as conduct disordered during childhood or adolescence compared with control groups

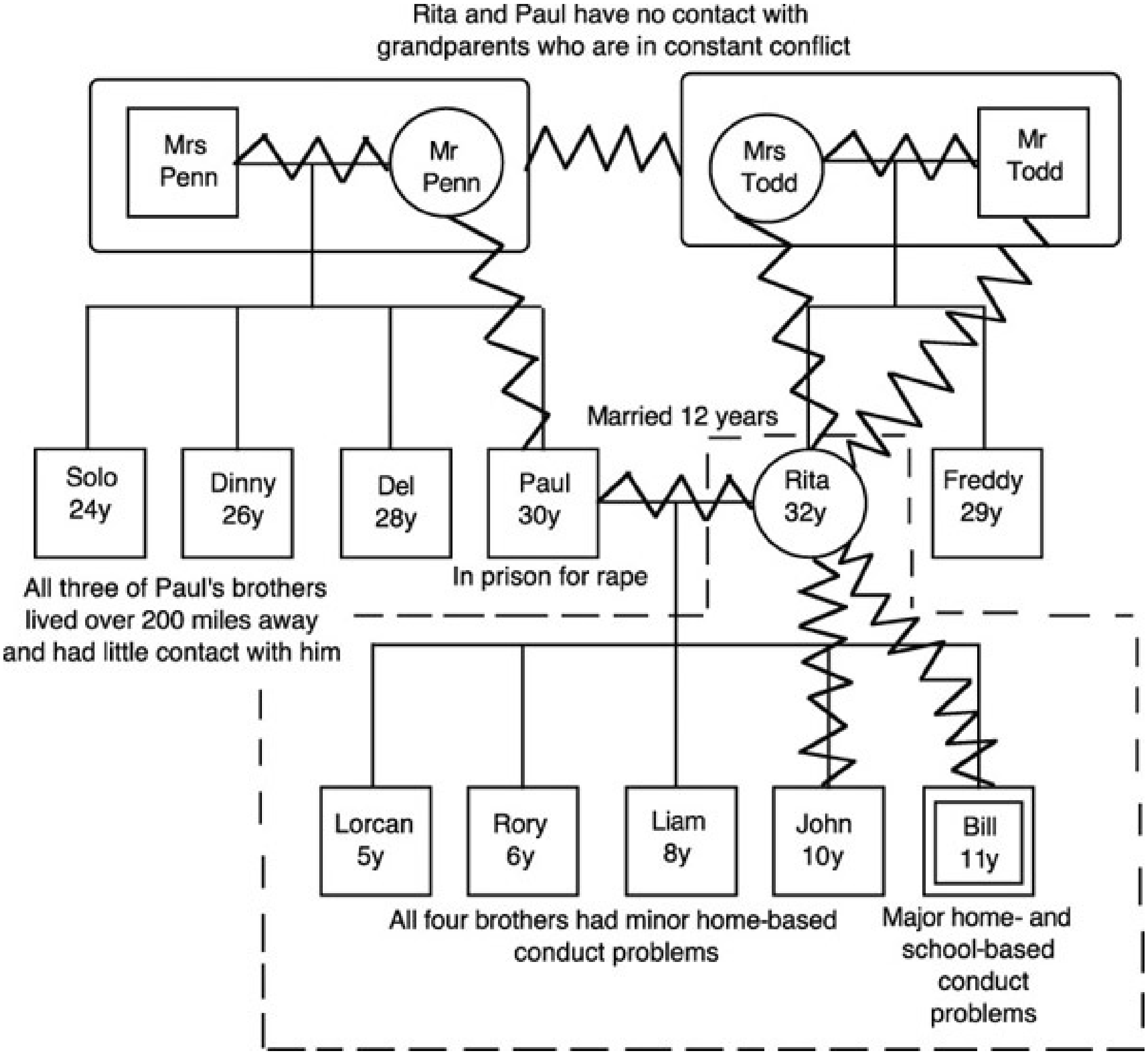
Criminality	More criminal behaviour, arrests, convictions, imprisonment and rates of driving while intoxicated
Mental health	Higher rates of psychiatric hospitalization and higher rates of all psychological symptoms, anti-social personality disorder, drug abuse and alcohol abuse
Physical health	Higher rates of hospitalization and mortality
Educational attainment	Higher rates of school dropout and lower attainment levels
Occupational adjustment	Higher unemployment, lower occupational status if employed, more frequent job changes
Marital adjustment	Higher rates of separation, divorce and remarriage
Social adjustment	Less contact with relatives, friends, neighbours and church
Inter-generational transmission	More children with conduct problems

Note: Based on comparisons of referred cases of conduct disorder with clinical or normal controls or on comparisons of delinquent and non-delinquent youngsters cited in Burke et al. (2002), Farrington (1995), Kazdin (1995), Loeber et al. (2000), and Murrihy et al. (2010).

Box 10.1 A case example of conduct disorder: Bill, the boy on the roof

Referral. Bill, aged 11, was referred by his social worker for treatment following an incident in which he had assaulted neighbours by climbing up onto the roof of his house and thrown rocks and stones at them. He also had a number of other problems according to the school headmaster, including academic under-achievement, difficulty in maintaining friendships at school and repeated school absence. He smoked, occasionally drank alcohol, and stole money and goods from neighbours. His problems were long-standing but had intensified in the six months preceding the referral. At that time his father, Paul, was imprisoned for raping a young girl in the small rural village where the family lived.

Family history. From the genogram it may be seen that Bill was one of five boys who lived with his mother at the time of the referral. The family was very disorganized. Prior to Paul's imprisonment, the children's defiance and rule-breaking, particularly Bill's, was kept in check by their fear of physical punishment from their father. Since his incarceration, there were few house rules and these were implemented inconsistently. All of the children had conduct problems but Bill's were by far the worst. His mother, Rita, had developed intense coercive patterns of interaction with Bill and John (the second eldest). In addition to the parenting difficulties, there were also no routines to ensure bills were paid, food was bought, washing was done, homework was completed or regular meal and sleeping times were observed. Rita supported the family with welfare payments and money earned illegally from farm-work. Despite the family disorganization, child behaviour problems and parenting challenges, Rita was very attached to her children and would sometimes take them to work with her rather than send them to school because she liked their company.



At the preliminary interview, Rita said that 'her nerves were in tatters.' She was attending a psychiatrist intermittently for pharmacological treatment of depression. She had a long-standing history of conduct and mood regulation problems, beginning early in adolescence. In particular she had conflictual relationships with her mother and father which were characterized by coercive cycles of interaction. In school she had academic difficulties and peer relationship problems.

Paul, the father, also had long-standing difficulties. His conduct problems began in middle childhood. He was the eldest of four brothers, all of whom developed conduct problems, but his were by far the most severe. He had a history of becoming involved in aggressive exchanges that often escalated to violence. He and his mother had become involved in coercive patterns of interaction from his earliest years. He developed similar coercive patterns of interaction at school with his teachers, at work with various gangers and also in his relationship with Rita. He had a distant and detached relationship with his father.

Rita had been ostracized by her own family when she married Paul, whom they saw as an unsuitable partner for her since he had a number of previous convictions for theft and assault. Paul's family never accepted Rita, because they thought she had 'ideas above her station'. Rita's and Paul's parents were in regular conflict, and each family blamed the other for the chaotic situation in which Paul and Rita had found themselves. Rita was also ostracized by the village community in which she lived. The community blamed her for driving her husband to commit rape.

Developmental history. From Bill's developmental history, it was clear that he was a difficult temperament child who did not develop sleeping and feeding routines easily and responded intensely and negatively to new situations. His language development had been delayed and he showed academic difficulties since his first years in school. On the positive side, Bill had a strong sense of family loyalty to his brothers and parents and did not want to see the family split up.

Psychometric assessment. On Child Behaviour Checklists all four of the boys obtained externalizing behaviour problem scores in the clinical range. Bill's were by far the most extreme. On Teacher Report Forms, of the five boys, only Bill obtained an externalizing behaviour problem score in the clinical range. A psychometric evaluation of Bill's abilities with the WISC-IV and the WRAT-3 showed that he was of normal intelligence, but his attainments in reading, spelling and arithmetic fell below the 10th percentile. From his WISC-IV sub-test profile, which included particularly low scores on Digit Span and Coding sub-tests, it was concluded that the discrepancy between attainment and abilities was accounted for by a specific learning disability.

School report. The headmaster at the school which Bill and his brothers attended confirmed that Bill had academic, conduct and attainment problems, but was committed to educating the boys and managing their conduct and attendance problems in a constructive way. The headmaster, Mr Dempsey, had a reputation (of which he was very proud) for being particularly skilled in managing children with problems.

Formulation. Bill was an 11 year old boy with a persistent and broad pattern of conduct problems both within and outside the home. He also had a specific learning disability and peer relationship problems. Factors which predisposed Bill to the development of these problems include a difficult temperament, a developmental language delay, exposure to paternal criminality, maternal depression and a chaotic family environment. The father's incarceration 6 months prior to the referral led to an intensification of Bill's conduct problems. The conduct problems were maintained at the time of the referral by engagement in coercive patterns of interaction with his mother and teachers, rejection of Bill by peers at school, and isolation of his family by the extended family and the community. Protective factors in the case included the mother's wish to retain custody of the children rather than have them taken into foster care, the children's sense of family loyalty, and the school's commitment to retaining and dealing with the boys rather than excluding them for truancy and misconduct.

Treatment. The treatment plan in this case involved a multi-systemic intervention programme. The mother was trained in behavioural parenting skills. A series of meetings between the teacher, the mother and the social worker was convened to develop and implement a plan that ensured regular school attendance. Occasional relief foster care was arranged for Bill and John (the second eldest) to reduce the stress on Rita. Social skills training was provided for Bill to help him deal with peer relationship problems.

Certain distinctions are made in DSM-5 (APA, 2013) and ICD-10 (WHO, 1992) in the classification of conduct problems. First, a distinction is made between transient adjustment disorders following an identifiable stressor involving circumscribed conduct problems on the one hand and more pervasive long-standing conduct problems that have been present for more than six months on the other. A second distinction is that made between oppositional defiant disorder and conduct disorder with the former reflecting a less pervasive disturbance than the latter. Also, oppositional defiant disorder is often a developmental precursor of conduct disorder. The ICD-10 system allows for peer influence on conduct problems to be accounted for by distinguishing between socialized and unsocialized conduct problems, where there are significant problems developing peer relationships. In the DSM system a distinction is made between childhood-onset and adolescent-onset sub-types of conduct disorder. A distinction is also made between in the DSM system between conduct disorder with and without callous unemotional traits. Callous unemotional traits include lack of remorse and empathy, a lack of concern about school performance and the manipulative use of emotional display for personal again. These traits are associated with poorer treatment response and psychopathy in adulthood (Frick et al., 2014). Conduct disorder with either co-morbid ADHD or depression is defined as distinct sub-types of the condition in the ICD system (i.e. hyperkinetic conduct disorder and depressive conduct disorder). Within the DSM system, in contrast, co-morbid diagnoses would be given in such cases. Neither the DSM nor the ICD system makes a distinction between the overt aggression vs. covert deceit sub-types of conduct problems.

Epidemiology

In a review of 12 international epidemiological studies Costello et al. (2004) found that the prevalence of conduct disorder ranged from 1.1–10.6% with a median prevalence rate of 3.7%. The range for oppositional defiant disorder was 1.3–7.4% and the median prevalence rate was also 3.7%. The variability in rates may be due to the diagnostic criteria applied and the demographic characteristics of the populations studied. Using ICD criteria a prevalence rate of 5.3% was obtained in a UK national epidemiological study (Meltzer et al., 2000). The prevalence of conduct disorder varies with gender, age and socio-economic status and the occurrence of co-morbid conditions is common (Murrihy et al., 2010). Conduct disorder is more prevalent in boys than in girls with male–female ratios varying from 2:1 to 4:1. It is also more prevalent in adolescents than children, and more prevalent in low than in high socio-economic groups. In Western countries, over the past century the prevalence of conduct disorder has increased fivefold (Robins, 1999).

Co-morbidity for conduct problems and other problems, such as ADHD, emotional disorders, developmental language delay, and specific learning disabilities, is quite common, particularly in clinic populations. From Table 3.9 it may be seen that the co-morbidity rate for conduct disorder and ADHD in community populations is 23.3%. From Table 3.10 it may be seen that the co-morbidity rate for aggression and attention problems based on the Child Behaviour Checklist in clinic populations is much higher, at 47%. From Table 3.9 it may be seen that co-morbidity rates for conduct disorder and emotional disorders in community populations is 16.9% for major depression and 14.8% for anxiety disorders. From Table 3.10 it may be seen that the co-morbidity rate for aggression and anxious/depressed problems based on the Child Behaviour Checklist in clinic populations is 41%.

Diagnosis and clinical features

The DSM-5 and ICD-10 diagnostic criteria and corresponding ASEBA sub-scales for oppositional defiant disorder and conduct disorder are given in Tables 10.2 and 10.3. For oppositional defiant disorder, the aggressive sub-scale from the Child Behaviour Checklist (CBCL) profile for 1.5–5 year olds is given in Table 10.2 since, in clinical practice, often young children are referred with this problem and there is some evidence that oppositional defiant disorder may be a developmental precursor of conduct disorder (Burke et al., 2002; Kimantis & Frick, 2010; Loeber et al., 2000). For conduct disorder, the aggressive and rule-breaking behaviour sub-scales of the CBCL profile for 6–18 year olds have been included in Table 10.3 since, in clinical practice, conduct disorder is more common among older referrals. High scores on both the aggressive and rule-breaking behaviour sub-scales of the CBCL suggests that socialized conduct problems in which deviant peer group relationships play a part may be present, whereas elevations on the aggressive behaviour sub-scale only suggest the presence of an unsocialized conduct problem.

Table 10.2 Diagnosis of oppositional defiant disorder

DSM-5	*ICD-10*	*ASEBA Aggressive Behaviour syndrome*

		scale for 1.5–5 year olds
A. A pattern of angry/irritable mood, argumentative/defiant behaviour, or vindictiveness lasting at least 6 months, as evidenced by at least four symptoms from any of the following categories, and exhibited during interaction with at least one individual who is not a sibling. **Angry/irritable mood** 1. Often looses temper. 2. Is often touchy or easily annoyed. 3. Is often angry or resentful. **Argumentative/defiant behaviour** 4. Often argues with authority figures or, for children and adolescents, with adults. 5. Often actively defies or refuses to comply with requests from authority figures or with rules. 6. Often deliberately annoys others. 7. Often blames others for his or her mistakes or misbehaviour. For children under 5 behaviours occur most days in the past 6 months. For children over 5 the behaviours occur once a week for 6 months.	The essential feature of this disorder is a pattern of persistently negativistic, hostile, defiant, provocative and disruptive behaviour which is clearly outside the normal range of behaviour for a child of the same age in the same sociocultural context and which does not include the more serious violations of the rights of others associated with conduct disorder. Children with this disorder tend frequently and actively to defy adult requests or rules and deliberately to annoy other people. Usually they tend to be angry, resentful, and easily annoyed by other people whom they blame for their own mistakes and difficulties. They generally have a low frustration tolerance and readily lose their temper. Typically their defiance has a provocative quality, so that they initiate confrontations and generally exhibit excessive levels of rudeness, uncooperativeness and resistance to	**Aggression** Temper tantrums (P&T) Angry moods (P&T) Attacks others (P&T) Fights (P&T) Hits others (P&T) Screams (P&T) **Defiance** Defiant (P&T) Disobedient (P&T) Uncooperative (P&T) Demanding (P&T) Demands attention (P&T) Mean to others (T) Teases others (T) Disturbs others (T) Not liked by others (T) Cruel to animals (T) **Destruction** Destroy own things (T) Destroys others' things (P&T) **Self-**

Vindictiveness 8. Has been spiteful or vindictive at least twice within the past 6 months. B. The disturbance in behaviour is associated with distress in the individual or others in his or her immediate social context (e.g., family, peer group, work colleagues), or it impacts negatively on social, educational, occupational, or other important areas of functioning. C. The behaviours do not occur exclusively during the course of a psychotic, substance use, depressive, or bipolar disorder. Also, the criteria are not met for disruptive mood dysregulation disorder. (For specifiers, see DSM-5, pp. 462–463.)	authority. Frequently this behaviour is most evident in interactions with adults or peers whom the child knows well, and signs of the disorder may not be present during clinical interview. The key distinction from other types of conduct disorder is the absence of behaviour that violates the law and the basic rights of others such as theft, cruelty, bullying, assault and destructiveness.	**regulation deficits** Can't stand waiting (P&T) Easily frustrated (P&T) Selfish (P&T) Stubborn (P&T) Accident prone (P&T) Unresponsive to punishment (P&T) Lacks guilt (P&T) Items marked (P) are on the parent report Child Behaviour Checklist Items marked (T) are on the Teacher and Caregiver Report form

Note: DSM-5 diagnostic criteria are reprinted with permission from the *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition* (APA, 2013). Copyright © 2013 American Psychiatric Association. The material in the column headed ICD-10 is a summary of the clinical description and diagnostic guidelines for oppositional defiant disorder. For the full official WHO clinical descriptions and diagnostic guidelines for this disorder see WHO, 1992, pp. 270–271. The material in the column headed ASEBA is adapted from Achenbach and Rescorla, 2000, 2001.

Table 10.3 Diagnosis of conduct disorder

DSM-5	*ICD-10*	*ASEBA 6–18 year olds*
		AGGRESSIVE BEHAVIOUR SYNDROME **Aggression**

A. A repetitive and persistent pattern of behavior in which the basic rights of others or major age-appropriate societal norms or rules are violated, as manifested by the presence of at least three of the following 15 criteria in the past 12 months from any of the categories below, with at least one criterion present in the past 6 months:

Aggression to people and animals

1. Often bullies, threatens or intimidates others.
2. Often initiates physical fights.
3. Has used a weapon that can cause serious physical harm to others (e.g., a bat, brick, broken bottle, knife, gun).
4. Has been physically cruel to people.
5. Has been physically cruel to animals.
6. Has stolen while confronting a victim (e.g., mugging, purse snatching, extortion, armed robbery).
7. Has forced someone into sexual activity.

Destruction of property

Conduct disorders (CD) are characterized by a repetitive and persistent pattern of dissocial, aggressive, or defiant conduct. Such behaviour, when at its most extreme for the individual should amount to major violations of age-appropriate social expectations, and is therefore more severe than ordinary childish mischief or adolescent rebelliousness.

Examples of the behaviours on which the diagnosis is based include the following: excessive levels of fighting or bullying; cruelty to animals or other people; severe destructiveness to property; firesetting; stealing; repeated lying; truancy from school and running away from home; unusually frequent and severe temper tantrums; defiant provocative behaviour; and persistent and severe disobedience. Any one of these categories, if marked, is sufficient for the diagnosis, but isolated dissocial acts are not.

Exclusion criteria include serious underlying conditions such as schizophrenia, hyperkinetic disorder

Attacks others (P&T&C)
Gets in fights (P&T&C)
Threatens others (P&T&C)
Looses temper (P&T&C)

Destruction

Destroys others' things (P&T&C)
Destroys own things (P&T&C)

Defiance

Argues a lot (P&T&C)
Disobedient at school (P&T&C)
Disobedient at home (P)
Defiant (T)
Demands attention (P&T&C)
Mean to others (P&T&C)
Teases others (P&T&C)
Suspicious of others (P&T&C)

Self-regulation deficits

Easily frustrated (T)
Sudden changes in mood (P&T&C)
Screams (P&T&C)

8. Has deliberately engaged in fire setting with the intention of causing serious damage.
9. Has deliberately destroyed others' property (other than by firesetting).

Deceitfulness or theft

10. Has broken into someone's house, building or car.
11. Often lies to obtain goods or favors or to avoid obligations (i.e., "cons" others).
12. Has stolen items of nontrivial value without confronting a victim (e.g., shoplifting, but without breaking and entering: forgery).

Serious violation of rules

13. Often stays out late at night despite parental prohibitions (before 13 years of age).
14. Has run away from home overnight at least

or depression.

The diagnosis is not made unless the duration of the behaviour is 6 months or longer.

Specify

CD confined to family context where the symptoms are confined to the home.

Unsocialized CD where there is a pervasive abnormality in peer relationships.

Socialized CD where the individual is well integrated into a peer group.

Speaks loudly (P&T&C)
Stubborn (P&T&C)
Explosive (T)
Sulks (P&T)

RULE-BREAKING SYNDROME

Overt conduct problems

Runs away from home (P&C)
Truants from school (P&T&C)
Sets fires (P&C)
Vandalism (P&T&C)
Tardy to school or class (T)
Swears (P&T&C)

Covert conduct problems

Steals outside home (P&T&C)
Steals from home (P&C)
Lies and cheats (P&T&C)

Coercive sex

Thinks about sex too much (P&T&C)
Sex problems (P)

Rule breaking without guilt

Breaks rules (P&T&C)
Shows no guilt (P&T&C)

Deviant peers

twice while living in the parental or parental surrogate home, or once without returning for a lengthy period. 15. Is often truant from school, beginning before age 13 years. B. The disturbance in behaviour causes clinically significant impairment in social, academic, or occupational functioning. C. If the individual is age 18 years or older, criteria are not met for antisocial personality disorder. (For specifiers, see DSM-5, pp. 470–471.)	Depressive conduct disorder where there are marked depressive symptoms. Hyperkinetic conduct disorder where there is comorbid hyperkinetic disorder.	Has bad friends (P&T&C) Prefers older friends (P&T&C) **Drug abuse** Uses drugs (P&T&C) Drinks alcohol (P&C) Uses tobacco (P&T&C) Items marked (P) are on the parent report Child Behaviour Checklist Items marked (T) are on the Teacher Report Form Items marked (C) are on the Youth Self-Report form

Note: DSM-5 diagnostic criteria are reprinted with permission from the *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition* (APA, 2013). Copyright © 2013 American Psychiatric Association. The material in the column headed ICD-10 is a summary of the clinical description and diagnostic guidelines for conduct disorder. For the full official WHO clinical descriptions and diagnostic guidelines for this disorder see WHO, 1992, pp. 266–271. The material in the column headed ASEBA is adapted from Achenbach and Rescorla, 2000, 2001.

In Table 10.4 the clinical features of oppositional defiant disorder and conduct disorder are presented. The disorders are similar insofar as in each the main behavioural feature is a persistent pattern of anti-social behaviour characterized by defiance of authority and aggression. However, in oppositional defiant disorder the behavioural pattern is circumscribed and usually (although not always) confined to the home, whereas with conduct disorder a more pervasive pattern of anti-social behaviour is present. This pattern extends to the school and community and involves deceitfulness, cruelty, running away, coercive sex and drug use.

With respect to cognition, in both disorders there appears to be a limited internalization of social rules and norms. In both oppositional defiant disorder and conduct disorder there is a hostile attributional bias where the youngster interprets ambiguous social situations as threatening and responds with aggressive retaliative behaviour.

Table 10.4 Clinical features of disorders of conduct

	Oppositional defiant disorder	*Conduct disorder*
Cognition	• Limited internalization of social rules or norms • Interprets ambiguous social situations as threatening and responds with anti-social behaviour	• Limited internalization of social rules or norms • Interprets ambiguous social situations as threatening and responds with anti-social behaviour
Affect	• Anger and irritability	• Anger and irritability
Behaviour	• Persistent pattern of defiance towards adults in authority • Aggression • Temper tantrums • Vindictiveness	• Persistent broad pattern of anti-social behaviour • Defiance • Aggression • Destructiveness • Deceitfulness and theft • Cruelty • Truancy • Running away • Coercive sex • Pre-adolescent drug use
Physical condition		• Physical problems associated with risk-taking behaviour such as fighting, drug abuse, casual unsafe sex and reckless driving
Interpersonal adjustment	• Problematic relationships, mainly with parents	• Problematic relationships with parents, teachers, peers and police

With respect to affect, in both oppositional defiant disorder and conduct disorder, anger and irritability are the predominant mood states.

With respect to physical health, youngsters with conduct disorders may have a variety of problems which result from risk-taking behaviour. For example, they may have injuries from involvement in fighting or dangerous driving. They may also have addictions, infection or medical complications associated with illicit drug use or casual sexual relationships.

In both oppositional defiant disorder and conduct disorder there may be problematic relationships with significant members of the child's network. With oppositional defiant disorder the main relationship difficulties occur with parents and centre on the child's defiance. In conduct disorder negative relationships with parents and teachers typically revolve around the youngster's defiant behaviour, and with peers the problems typically centre on aggression and bullying which is guided by the hostile attributional bias with which conduct-disordered youngsters construe many of their peer relationships. With conduct disorders there may also be problematic relationships with members of the wider community if theft or vandalism have occurred. Multi-agency involvement with juvenile justice or social work agencies are common. Also, because conduct disorder is associated with family disorganization, parental criminality and parental psychological adjustment difficulties, professionals from adult mental health and justice systems may be involved with families of young people with disruptive behaviour disorders.

With both conduct disorder and oppositional defiant disorder three classes of risk factors increase the probability that conduct problems in childhood or adolescence will escalate into later life difficulties. These factors are personal characteristics, parenting practices and family organization problems (McMahon et al., 2010; Moffitt & Scott, 2008; Scott, 2009). Early onset, callous unemotional traits, difficult temperament, aggressiveness, impulsivity, inattention and educational difficulties are the main personal characteristics of children and adolescents that place them at risk for long-term conduct problems. Ineffective monitoring and supervision of youngsters, providing inconsistent consequences for rule violations and failing to provide reinforcement for pro-social behaviour are the main problematic parenting practices that place children and adolescents at risk for the development of long-term anti-social behaviour patterns. The family organization problems associated with persistence of conduct problems into adulthood are parental conflict and violence, a high level of life stressors, a low level of social support and parental psychological adjustment problems such as depression or substance abuse.

Disruptive behaviour disorders follow three main developmental trajectories: life-course persistent, adolescent limited and childhood limited (Moffitt & Scott, 2008; Pardini & Frick, 2013). About half of all children with childhood behavioural problems follow a life-course persistent pathway and grow up to have anti-social personality disorders. For the other half, their difficulties are limited to childhood or adolescence. The life-course persistent pathway is associated with a greater number of risk factors, such as co-morbid ADHD or parental psychopathology. The adolescent limited pathway is associated with deviant peer group membership.

Aetiological theories of conduct disorder

Since the distinction between oppositional defiant disorder and conduct disorder is a relatively recent development, most theories in this area have been developed with specific reference to conduct disorder, but have obvious implications for oppositional defiant disorder, which is probably a developmental precursor of conduct disorder in many cases. Some of the more influential theories about the aetiology of conduct disorder are listed in Table 10.5 along with the implications of these theories for treatment. Let us consider each of these in turn.

Biological theories

Biological theories have focused on the roles of genetic factors, neurobiological deficits, neurotransmitter dysregulation, neuroendocrine factors, arousal levels, temperament and neuropsychological deficits in the aetiology of conduct problems.

Genetics. The finding from a review of over 100 twin and adoption studies, that anti-social behaviour is about 50% heritable, points to a role for genetically transmitted factors in the aetiology of conduct disorders (Moffitt, 2005). Current neuroscientific studies of conduct disorder aim to link specific genes with specific structural and functional brain abnormalities. At present a number of genes are being investigated. One of the most promising lines of research in this area has established a link between the monoamine oxidase A (MAOA) gene and conduct disorder in boys at risk of anti-social behaviour as a result of exposure to physical child abuse. In a meta-analysis of a series of studies, Kim-Cohen et al. (2006) found that physically abused children with the MAOA genotype, conferring low levels of the MAOA enzyme, developed conduct disorder more often than abused children with a high-activity MAOA genotype. MAOA plays a key role regulating aggressive behaviour by selectively breaking down a number of neurotransmitters including serotonin, which has been found to be abnormally low in a significant minority of anti-social individuals. While specific genes, such as the MAOA gene, may contribute to the risk of anti-social behaviour, their contributions are probably quite small, compared with the larger polygenetic effects of collections of genes on personal attributes such as temperament, reward and punishment processing, self-regulation, executive function and verbal ability, all of which have strong associations with conduct disorder.

Table 10.5 Theories and treatments for conduct disorder and oppositional defiant disorder

	Theory	*Theoretical principles*	*Principles of t*
	Genetic theory	• A disposition to aggression is inherited	• N/A
	Neurobiological deficit theory	• Anti-social behaviour is subserved by structural and functional brain abnormalities in the pre-frontal cortex which subserves executive function and limbic system which further subserves emotional processing	• Treatments account of functioning emotional deficits

Biological theories	**Neurotransmitter dysregulation theory**	- A disposition to aggression is due to a dysregulation of serotonergic neurotransmission system	- Psychophar treatment selective se reuptake in (SSRI) that serotonergi
	Neuroendocrine theory	- A disposition to aggression is due to a dysregulation of androgen systems (testosterone and dehydroepiandrosterone [DHEA])	- Treatments account of vulnerabilit aggression
	Hypoarousal theory	- Fearless rule-breaking, risky sensation-seeking and low responsivity to reinforcement and punishment associated with conduct disorders are due to hyporeactivity of the autonomic nervous system and the hypothalamic-pituitary-adrenal (HPA) axis - Hypoarousal is due to genetic factors and early adversity	- Early interv prevent ear - Highly struc intensive be treatment immediate consequenc following a breaking be occurs
	Difficult temperament theory	- Difficult temperament is a risk factor for conduct problems because it leads to poor self-regulation and elicits punishment from caregivers	- Self-regulat training for and parenti training for
	Neuropsychological deficit theory	- Neuropsychologically based deficits in language, verbal reasoning and executive function underpin self-regulation difficulties that contribute to conduct problems	- Remedial in that facilita developme language, a

		• They also lead to under-achievement which leads to frustration, and this contributes to aggressive behaviour	and plannir
	Neurodevelopmental theory	• Conduct disorder and oppositional defiant disorder are subserved by deficits in neurobiological systems for punishment processing, reward processing and cognitive control	• Early interv prevent adv • Highly struc intensive be treatment v immediate consequenc following a breaking be occurs • Cognitive co training to management negative af and academ
Psychodynamic theories	**Super-ego deficit theory**	• Anti-social behaviour occurs because of either over-indulgent or punitive/negligent parenting • With over-indulgent parenting, the child internalizes lax standards • With punitive or negligent parenting, the child internalizes the parents' aggressive or negligent style for dealing with relationships	• Residential g milieu thera staff consist compassion enforce rule conduct wh societal sta
	Attachment theory	• Children who are separated from their primary caretakers for extended periods of time during their first months of life fail to develop secure	• Treatment sl provide a s attachment relationshi lead to the

		attachments • In later life they do not have internal working models to guide moral social interaction	developme appropriat working m relationshi
Cognitive-behavioural theories	**Social information processing theory**	• Children with conduct disorders attribute hostile intentions to others and respond with retaliatory aggression • The reactions of peers confirms the hostile attributional bias	• Group base problem-so training
	Social skills deficit theory	• Children with conduct disorders lack the skills to generate alternative solutions to social problems and implement these, and so use aggression to solve social problems	• Social skills
	Modelling theory	• Aggression is learned through a process of imitating the behaviour modelled by the parents or older sibling	• Family-base to help par appropriat for their ch provision o models of a behaviour i residential care setting
	Coercive family process theory	• Anti-social behaviours are learned from involvement in coercive patterns of interaction with parents • Social and economic stressors contribute to the parents' use of a coercive parenting style	• Parent train parents and break coerc of interacti empower p manage life which com their paren effectivene
		Conduct problems occur in disorganized families which lack	

Systemic theories	**Family systems theory**	• communication and problem-solving skills • clear rules, roles, routines • clear boundaries and hierarchies • flexibility for managing lifecycle transitions such as the onset of adolescence and adulthood	• Family-base to help fam become bet organized
	Sociological theory	• Within a socially disadvantaged delinquent sub-culture, theft and other anti-social behaviours are illegitimate means to achieve material goals valued by mainstream culture	• Treatment n delinquents peer groups legitimate r achieve soc through tra employmen
	Multi-systemic ecological theory	Conduct disorders are maintained by • individual factors (such as hostile attributional bias, poor social skills, difficulties learning pro-social behaviour from experience, academic learning difficulties) • family factors (particularly parent–child attachment and discipline problems, marital discord and disorganization) • school factors (such as poor attainment) • community factors (such as involvement with deviant peers and drug abuse)	Multi-systemic packages sh include • individual an cognitive an skills trainin enhance pro peer relatio reduce invo deviant pee • family thera treatment f to improve child attach discipline a family diso • school-based intervention with under- achievemen

In a wide-ranging review of genetic studies of disruptive behaviour disorders, Lahey and

Waldman (2012) drew the following conclusions. Conduct disorder and oppositional defiant disorder are both correlated concurrently and predictively with other externalizing disorders and some internalizing disorders. These correlations result primarily from widespread genetic pleiotropy, with some genetic factors non-specifically influencing risk for multiple correlated dimensions of psychopathology. In contrast, environmental influences mainly act to differentiate dimensions of psychopathology. Conduct disorder and oppositional defiant disorder share half of their genetic influences. Half of the genetic influences on conduct disorder are unique. In contrast, oppositional defiant disorder shares nearly all of its genetic influences with other disorders and has little unique genetic variance.

Neurobiological deficits. Neurobiological deficit theories propose that anti-social, immoral and aggressive behaviour, typical of people with life course–persistent disruptive behaviour disorders, is subserved by structural and functional brain abnormalities. In a wide-ranging review of evidence drawn mainly from studies of anti-social adults with histories of childhood conduct disorder, Raine and Yang (2006) concluded that anti-social behaviour is associated with structural and functional abnormalities of a number of brain regions, including the pre-frontal cortex, which subserves executive function and judgement, and the limbic system (including the amygdala, hippocampus and cingulate), which subserves learned emotional responses, particularly fear conditioning. People with anti-social personality disorder and psychopathy (who as children had disruptive behaviour disorders) have significantly reduced pre-frontal lobe grey matter, reduced amygdala and hippocampus volume, and reduced activity in these areas compared with normal people. These abnormalities may be due to genetic factors or pre-natal, peri-natal or early childhood adversity (Moffitt, 2005; Taylor & Rogers, 2005). Specific interventions which target neurobiological deficits have not been developed. However, this theory predicts that psychological treatments which take account of executive function and emotional processing deficits by directly helping young people develop planning and self-regulation skills, or changing the home and school environment to take account of these deficits, would be effective. There is some evidence for this view (Carr, 2009). Such treatments are mentioned later in the sections on psychological theories.

Neurotransmission dysregulation. This best supported neurotransmission dysregulation hypothesis proposes that low levels of serotonin or inefficiencies in the serotonergic neurotransmission system lead to aggression against others in the case of disruptive behaviour disorders (or the self in the case of depression) by enhancing sensitivity to stimuli that elicit aggression and reducing sensitivity to cues that signal punishment (Spoont, 1992; van Goozen et al., 2007; van Goozen & Fairchild, 2008; van Goozen et al., 2008). Studies of adults show that anti-social behaviour is associated with low levels of serotonin, but in studies of children the results are more mixed. However, medications which target serotonin, such as selective serotonin reuptake inhibitors (SSRIs), do not modify aggression or anti-social behaviour in children or adults. There are other neurotransmission dysregulation hypotheses implicating noradrenaline and dopamine in the aetiology of disruptive behaviour disorders. However, there is some evidence to support their role in adult aggression but limited evidence on their role in anti-social behaviour in children.

Neuroendocrine hypothesis. The hypothesis that anti-social behaviour is caused by androgens such as testosterone and dehydroepiandrosterone (DHEA) is premised on the fact that higher rates of both occur in males, and in animal studies a strong correlation has been found between aggression and testosterone levels. Research on adults has established a link between testosterone and violent crime, but studies of children and adolescents have yielded mixed results. In contrast, there is some evidence for higher levels of DHEA in children and adolescents with conduct disorder (van Goozen et al., 2007). Treatments based on the neuroendocrine hypotheses that aim to reduce aggression by lowering androgen levels have not been developed and approved for use with young people. However, this theory predicts that psychological treatments which take account of young people's high vulnerability to aggression by directly helping young people develop anger control skills, or changing the home and school environment to take account of vulnerability to aggression, would be effective. There is some evidence for this view (Carr, 2009). Such treatments are mentioned later in the sections on psychological theories.

Hypoarousal. In the most sophisticated version of the hypoarousal hypothesis, van Goozen et al. (2007; van Goozen & Fairchild, 2008; van Goozen et al., 2008) propose that people who show marked aggression and anti-social behaviour do so because their stress response systems are under-reactive, a neurobiological vulnerability that may arise from genetic factors or early adversity. This under-reactivity accounts for fearless rule-breaking behaviour, risky sensation-seeking behaviour and low responsivity to reinforcement and punishment typical of young people with conduct disorder. In previous versions of this hypothesis, Raine (1996) proposed that because of their fearlessness, children with conduct disorder are insensitive to the negative consequences of anti-social behaviour, and so have difficulty learning and internalizing societal rules. Zuckerman (2007) argued that their low arousal levels lead them to become easily bored and they address this by engaging in risky, sensation-seeking behaviour. The hypoarousal hypothesis is supported by a large body of evidence which shows that anti-social children and adults have low resting heart rate, skin conductance and cortisol levels which are indices of hypoactivity within the autonomic nervous system and the hypothalamic-pituitary-adrenal (HPA) axis (van Goozen et al., 2007; van Goozen et al., 2008).

There is also growing evidence that both genetic factors and adverse pre-natal and early life environments may contribute to the development of under-reactive stress response systems. The heritability of anti-social behaviour mentioned earlier is well established, and future research may indicate a mechanism that links specific genes to the stress response system. With regard to the pre-natal environment, maternal smoking, drug and alcohol use, psychopathology and poor diet during pregnancy all compromise normal development of the central nervous system and may possibly compromise the development of the stress response system (Huizink et al., 2004). Stressful parenting environments in the early years associated with parental psychopathology, harsh critical parenting, child abuse and neglect, and domestic violence may adversely affect brain development and lead to an adaptive down-regulating of the stress response system to avoid the negative effects of chronic hyperarousal (Dawson et al., 2000; Susman, 2006).

Hypoarousal theory entails the view that early intervention programmes targeting families of children at risk of conduct disorder and which aim to reduce exposure to early adversity within the family would reduce the risk of conduct disorder. These programmes would prevent the down-regulating of the stress response system. To date no such programmes have been developed and tested. Also, no psychopharmacological interventions have been developed to directly normalize low arousal levels of young people with conduct disorder. However, hypoarousal theory entails the view that psychological intervention programmes which take into account low arousal would be effective. Such programmes would involve highly structured and intensive learning situations. The positive and negative reinforcers used would have to be highly valued and delivered immediately following responses. All rule infractions would have to lead to immediate withdrawal of desired stimuli. Rule-following would have to be immediately and intensely rewarded on a variable interval schedule, since this leads to learning that is maximally resistant to extinction. There is some evidence for this view (Carr, 2009). These treatment implications of arousal theory have been incorporated into the design of behavioural parent training programmes mentioned later in sections on psychological theories and treatment of disruptive behaviour disorders.

Temperament. The temperament hypothesis proposes that difficult temperament is a risk factor for disruptive behaviour disorders. Children with difficult temperaments, which are predominantly inherited, have difficulty establishing regular routines for eating, toileting and sleeping; tend to avoid new situations; and respond to change with intense negative emotions. Their temperamental style tends to elicit negative reactions from their parents, teachers and peers, to which they respond with defiance, aggression and other anti-social behaviour. The temperament hypothesis has been supported by many studies including Chess and Thomas's (1995) original New York longitudinal study (De Pauw & Mervielde, 2010). The temperament hypothesis has two main treatment implications. Young people require training in self-regulation skills to help them manage their emotions, an issue discussed later under cognitive-behavioural theories. Their parents require parenting skills training to help them manage their children's difficult temperament behaviour. There is some evidence to support the effectiveness of these types of interventions for disruptive behaviour disorders (Carr, 2009).

There may appear to be an inconsistency between the hypoarousal hypothesis and the temperament hypothesis, with the former proposing that anti-social behaviour is associated with low arousal and the latter with difficult temperament, possibly associated with high arousal in new situations. It may be that low arousal and difficult temperament are separate routes to anti-social behaviour or to different types of anti-social behaviour, with low arousal being associated with callous unemotional psychopathy and difficult temperament associated with aggressive behaviour. Lorber (2004) found support for this position in a meta-analysis of studies of heart rate and skin conductance resting levels and reactivity to various stimuli. All forms of anti-social behaviour were associated with low resting arousal levels, but individuals with aggressive conduct problems showed high reactivity whereas those with callous unemotional psychopathic traits did not.

Neuropsychological deficits. Neuropsychological deficits in executive function and verbal reasoning, according to this position, underpin self-regulation difficulties that contribute to conduct problems. Executive function deficits limit the capacity to plan and follow through on pro-social courses of action, and so give rise to disruptive behaviour disorders. Children with verbal reasoning deficits may have difficulty remembering instructions, developing private speech to facilitate self-control, and using verbal strategies rather than aggression to resolve conflicts. Executive function and verbal reasoning deficits may also account for academic under-achievement typical of young people with conduct disorders, and this under-achievement may lead to frustration and consequent aggressive behaviour. This position is supported by a substantial body of evidence that documents verbal reasoning and executive function deficits in children and teenagers with conduct problems, by studies that confirm a strong association between reading difficulties and conduct problems, and by studies which show that unsocialized conduct problems are associated with self-regulation problems (Moffitt & Scott, 2008; Nigg & Huang-Pollock, 2003; Teichner & Golden, 2000). Remedial interventions that facilitate the development of language and academic skills are the principal types of treatment deriving from this theory. There is some evidence that these types of interventions are effective when incorporated into multi-systemic treatment programmes for disruptive behaviour disorders (Carr, 2009).

Neurodevelopmental theory. In an integrative neurodevelopmental formulation which draws together concepts from a number of the biological theories outlined earlier, Matthys et al. (2013) proposed that for normal development, children need to be sensitive to punishment cues in order to learn to refrain from inappropriate behaviours; they need to be sensitive to reward cues so they can learn socially acceptable behaviours; and they need to be able to exert cognitive control over their thoughts, emotions and behaviour. Children develop conduct disorder and oppositional defiant disorder because of deficits in the neurobiological systems required for punishment processing, reward processing and cognitive control. In a wide-ranging review, Matthys et al. (2013) showed that there is considerable empirical support for this neurodevelopmental theory. With regard to punishment processing, impaired fear conditioning, reduced HPA axis activity and reduced cortisol reactivity to stress, amygdala hyporeactivity to negative stimuli, and dysregulation of the serotonergic neurotransmission system underpin the low punishment sensitivity of children with conduct disorder and oppositional defiant disorder. These neurobiological vulnerabilities compromise the ability of young people with conduct disorder and oppositional defiant disorder to make associations between inappropriate behaviours and punishments. With regard to reward processing, orbitofrontal cortex hyporeactivity to reward, altered dopamine functioning, sympathetic nervous system hyporeactivity to incentives and low basal heart rate associated with sensation seeking may render young people with conduct disorder and oppositional defiant disorder relatively insensitive to stimuli that normal children would find rewarding. Consequently, such young people engage in sensation-seeking behaviour such as rule-breaking, delinquency and substance misuse to obtain the positive affective state that normal children would experience in response to less risky activities. With regard to cognitive control, structural deficits and impaired functioning of the paralimbic system encompassing the orbitofrontal and cingulate cortex underpin impaired cognitive control over emotional behaviour and impaired executive functions. There is some evidence that deficits in the neurobiological systems required for punishment processing, reward processing and cognitive control are partly genetically determined and arise partly from early adversity (van Goozen & Fairchild, 2008). This integrative theory points to the importance of very early family-based intervention to prevent early family adversity that may lead to low responsivity of the HPA axis to rewards and punishments. It also entails the view that pharmacological interventions may be developed to treat the neurobiological deficits that underpin disruptive behaviour disorders. This theory supports the use of psychological intervention programmes that take account of the neurobiological vulnerabilities of children with disruptive behaviour disorders; that is, deficits in reward and punishment processing and cognitive control. Such programmes should involve immediate and intense positive and negative consequences for social and anti-social behaviours and facilitate the development of cognitive control skills for regulating negative affectivity and completing academic work. There is some evidence for this view (Carr, 2009).

Psychodynamic theories

Classical psychoanalytic theory points to super-ego deficits and attachment theory highlights the role of insecure attachment in the development of conduct problems.

Super-ego deficit theory. Within psychoanalysis it is assumed that societal rules and expectations are internalized through identification with the parent of the same gender. This internalization is referred to as the super-ego. Aichorn (1935) argued that anti-social behaviour occurs because of impoverished super-ego functioning. The problems with super-ego functioning were thought to arise from either over-indulgent parenting on the one hand, or punitive and neglectful parenting on the other. With over-indulgent parenting, the child internalizes lax standards and so feels no guilt when breaking rules or behaving immorally. In such cases, any apparently moral behaviour is a manipulative attempt to gratify some desire.

With punitive or neglectful parenting, the child splits the experience of the parent into the *good caring parent* and the *bad punitive/neglectful parent* and internalizes both of these aspects of the parent quite separately with little integration. In dealing with parents, peers and authority figures, the child may be guided by either the internalization of the good parent or the bad parent. Typically at any point in time such youngsters can clearly identify those members of their network who fall into the good and bad categories. They behave morally towards those for whom they experience a positive transference and view as good, and immorally to those towards whom they have a negative transference and view as bad. Individual psychoanalytic psychotherapy has been used in the treatment of children and adolescents with conduct problems (e.g. Kernberg & Chazan, 1991). However, there are limits to the effectiveness of psychoanalytically based treatment for disruptive behaviour disorders (Fonagy & Target, 1994; Winkelmann et al., 2005). For example, in a naturalistic study Fonagy and Target (1994) found that children with oppositional defiant disorder responded better than children with conduct disorder or ADHD.

While there is little evidence for the effectiveness of psychoanalytically based treatment for conduct disorders, it has provided important insights into the impact of working with such youngsters on the dynamics within multi-disciplinary teams. For example, in my clinical experience conduct disordered youngsters who have internalized good and bad parental representations into the super-ego, typically project good parental qualities onto one faction of the multi-disciplinary team (typically the least powerful) and bad parental qualities onto the other team members (typically the most powerful). These projections elicit strong countertransference reactions in team members with those receiving good projections experiencing positive feeling towards the youngster and those receiving bad projections experiencing negative feelings towards the youngster. Inevitably this leads to team conflict which can be destructive to team functioning if not interpreted, understood and worked through.

Attachment theory. Bowlby (1944) pointed out that children who were separated from their primary caretakers for extended periods of time during their first months of life failed to develop secure attachments and so, in later life, did not have internal working models for secure trusting relationships. He referred to such children as displaying affectionless psychopathy. Since moral behaviour is premised on functional internal working models of how to conduct oneself in trusting relationships, such children behave immorally. Later studies of children reared in intact families have established a link between attachment insecurity and behaviour problems (e.g. Moss et al., 2006). Treatment according to this position should aim to provide the child with a secure-attachment relationship or corrective emotional experience which will lead to the development of appropriate internal working models. This in turn will provide a basis for moral action. Secure attachment relationships may be facilitated within families of young people with disruptive behaviour disorders through parent training and family therapy, which are described later in this chapter (Carr, 2009).

Cognitive-behavioural theories

A range of different theories of conduct problems have been developed within the broad cognitive-behavioural tradition. These include theories on social information processing, social skills deficits, modelling and coercive family process.

Social information processing theory. Social information processing theory proposes that conduct problems occur because young people think about their world in ways that legitimize anti-social behaviour. Research on social information processing in youngsters with conduct disorders has shown that in ambiguous social situations their cognition is characterized by a hostile attributional bias (Crick & Dodge, 1994). Children with conduct disorders attribute hostile intentions to others in social situations where the intentions of others are ambiguous. The aggressive behaviour of children with conduct disorders in such situations is, therefore, intended to be retaliatory. The aggression is viewed as unjustified by those against whom it is directed and this leads to impaired peer relationships. The reactions of peers to such apparently unjustified aggression provides confirmation for the aggressive child that their peers have hostile intentions which justifies further retaliatory aggression. Cognitive-behavioural interventions, based on social information processing theory, help children develop social problem-solving skills that involve generating benign alternatives to the hostile attributions that they typically make for the actions of others (e.g. Jones et al., 2010).

Social skills deficit theory. Social skills deficit theory proposes that conduct problems occur because young people lack the skills required for solving social challenges they face in their day-to-day lives, and address these challenges by engaging in anti-social behaviour (Shure, 2001; Spivack & Shure, 1982). These children lack the skills to generate alternative solutions to social problems such as dealing with an apparently hostile peer. They also lack the skills to implement solutions to social problems such as these. Within this cognitive-behavioural tradition group-based social skills programmes have been developed which aim to train youngsters in the following skills:

- correcting hostile attributional bias
- accurately assessing problematic social situations
- generating a range of solutions to such problem situations
- anticipating the immediate and long-term impact of these solutions
- implementing the most appropriate solution
- learning from feedback.

There is a growing body of data which shows that individual or group-based social problem-solving skills training is an effective component of intervention packages for disruptive behaviour disorders (Kazdin, 2010).

Modelling theory. Bandura and Walters (1959) proposed that aggression, characteristic of children and adolescents with conduct disorders, is learned through a process of imitation or modelling. Children subjected to harsh critical parenting, neglect, physical abuse or who witness domestic violence become aggressive through a process of modelling. They observe their parents model the use of aggression as a rewarding way of relating to others and solving interpersonal problems. They then imitate their parents' behaviour in the expectation that it will be rewarding for them too. This position is supported by a large body of evidence, particularly that which points to the intrafamilial transmission of aggressive behaviour associated with harsh inconsistent parenting, child abuse and neglect, and exposure to domestic violence (Kimantis & Frick, 2010; Moffitt & Scott, 2008; Taylor & Rogers, 2005). According to modelling theory, treatment should aim to help parents, through parent training or family therapy, to model appropriate non-violent behaviour for their children or provide alternative models of appropriate behaviour in a residential or treatment foster care setting. There is some evidence for the effectiveness of such systemic treatments of conduct disorder (Carr, 2014a; Henggeler & Sheidow, 2012).

Coercive family process theory. Patterson and his group proposed that children with conduct disorders learn their anti-social behaviours from involvement in coercive patterns of interaction with their parents, and these behaviours are then exhibited in school and community contexts (Forgatch & Patterson, 2010; Patterson, 1982). Marital discord, parental psychopathology, a variety of social and economic stressors and social isolation all contribute to parents' use of a coercive parenting style. This style has three main features. First, parents have few positive interactions with their children. Second, they punish children frequently, inconsistently and ineffectively. Third, the parents of children with conduct problems negatively reinforce anti-social behaviour by confronting or punishing the child briefly and then withdrawing the confrontation or punishment when the child escalates the anti-social behaviour, so that the child learns that escalation leads to parental withdrawal. By middle childhood children exposed to this parenting style have developed an aggressive relational style which leads to rejection by non-deviant peers. Such children, who often have co-morbid specific learning difficulties, typically develop conflictual relationships with teachers and consequent attainment problems. In adolescence rejection by non-deviant peers and academic failure make socializing with a deviant delinquent peer group an attractive option. Patterson's group have shown that this developmental trajectory is common among youngsters who first present with oppositional defiant disorder. The delinquency of adolescence is a staging post on the route to adult anti-social personality disorder, criminality, drug misuse and conflictual, violent and unstable marital and parental roles for more than half of all youngsters with conduct disorder (Farrington, 1995). Therapy for families with pre-adolescent children based on this model aims to help parents and children break coercive patterns of interaction and build positive relationships, but most importantly it helps parents develop skills for effectively disciplining their children. There is considerable evidence for the effectiveness of this type of behavioural parent training (Forgatch & Patterson, 2010) and other evidence-based models of family therapy and treatment foster care which disrupt coercive family process (Carr, 2014a; Henggeler & Sheidow, 2012).

Systems theories

Systems theories highlight the role of characteristics of family systems, social networks and society in the aetiology and maintenance of conduct problems.

Family systems theory. Family systems theory proposes that family dysfunction is central to the aetiology of disruptive behaviour disorders, and that the family is a key resource in the treatment of children's anti-social behaviour. Within the family therapy tradition, a number of assumptions have been influential in offering a framework for understanding how conduct disorders are maintained by patterns of family interaction and how they may be resolved by intervening in these patterns (Carr, 2012). According to family systems theory, families with youngsters who have conduct problems are more disorganized than other families. Rules, roles and routines are unclear, and parental supervision of children is deficient. Communication is problematic, unclear and confusing. There is also an absence of systematic family problem-solving skills. The members of these families are more emotionally disengaged from each other in comparison with other families, and parent–child relationships may be lacking in warmth and empathy. In addition, families with youngsters who display conduct problems have difficulties maintaining clear unambiguous inter-generational hierarchies and negotiating lifecycle transitions. With respect to ambiguous hierarchies, conduct problems are maintained if parents do not both agree on a basic set rules of conduct for their children which they consistently enforce, with clear consequences for rule violations. With respect to lifecycle transitions, conduct problems are more likely to occur at transitional points in the lifecycle, when there are changes in routines and a build-up of stress, such as starting primary school, moving to secondary school and entering adolescence, or leaving secondary school and entering adulthood. Available evidence supports many of these assumptions of family system theory. Families of young people with disruptive behaviour disorders are more likely to be characterized by disorganization, harsh critical and inconsistent parenting, lack of parental warmth, physical child abuse and neglect, parental criminality and psychopathology, marital discord, domestic violence, and many life stresses, notably poverty (Crosnoe & Cavanagh, 2010; Moffitt & Scott, 2008). Family therapy addresses disruptive behaviour disorders by helping families become more coherently organized with better relationships, communication, problem solving and fair, consistent parenting. There is good evidence for the effectiveness of family therapy in reducing adolescent anti-social behaviour (Carr, 2014a; Henggeler & Sheidow, 2012).

Sociological theories. A variety of sociological theories have posited a causal link between deviant anti-social behaviour and aspects of the wider sociocultural context within which such behaviour occurs. Anomie theory is a commonly cited exemplar of this body of theories (Cloward & Ohlin, 1960). According to anomie theory, theft and other related anti-social behaviours such as mugging and lying are illegitimate means used by members of a socially disadvantaged delinquent sub-culture to achieve material goals valued by mainstream culture. Anomie is the state of lawlessness and normlessness that characterizes such sub-cultures. In support of this position is good evidence for a link between anti-social behaviour and poverty (Moffitt & Scott, 2008), and that membership of deviant peer groups can facilitate anti-social behaviour (Dishion & Dodge, 2005). Treatment premised on this theory must provide delinquents and their peer groups with legitimate means to achieve societal goals. Remedial academic programmes, vocational training programmes and treatment foster care are the main treatment approaches implicated by this theory. There is good evidence for the efficacy of treatment foster care (Smith & Chamberlain, 2010), and some evidence for the value of academic and vocational programmes, as part of multi-component treatment packages, in the rehabilitation of juvenile delinquents (Lipsey, 2009).

Multi-systemic ecological theory. This position, proposed by Henggeler, entails the view that multiple systems (including the individual, the family, the school and the community) are involved in the genesis and maintenance of conduct problems and consequently effective treatment must target multiple systems rather than any single system (Henggeler & Schaeffer, 2010). Bronfenbrenner's model of ecologically nested systems is the foundation for this theory (Bronfenbrenner & Morris, 2006). Conduct disorders, it is argued, are maintained by multiple factors in these multiple ecologically nested systems. Important individual factors include difficult temperament, early separation experiences, hostile attributional bias, poor social skills, difficulties learning pro-social behaviour from experience and academic learning difficulties. Family factors include family disorganization, problematic family relationships, parent–child attachment difficulties, parenting and discipline problems, marital discord and difficulty negotiating family lifecycle transitions. School factors include patterns of interaction that maintain school-based discipline problems, attainment difficulties and lack of educational resources. Community factors include involvement with deviant peers, drug misuse and involvement in poorly co-ordinated multi-agency networks.

Henggeler developed Multisystemic Therapy (MST) based on this ecological conceptualization of disruptive behaviour disorders. MST is a comprehensive, empirically supported programme for anti-social young people and their families. For each case, treatment is individually tailored and based on a multi-system ecological assessment. Treatment packages include family therapy to reduce family disorganization, school-based interventions to deal with interactional patterns that maintain school-based conduct problems and under-achievement, individual and group cognitive and social skills training, and peer group–based interventions to enhance pro-social peer relationships and reduce involvement in deviant peer groups. Evidence from a series of trials supports the effectiveness of this approach (Henggeler & Schaeffer, 2010).

Assessment

Guidelines for assessment set out in Chapter 4 should be followed in cases where conduct problems are the main concern. It is particularly important to establish an assessment contract with the family, the referring agency and other involved agencies if appropriate. Assessment and management of cases of conduct problems are typically complex because these families have often been the recipients of multiple previous interventions and are involved with multiple agencies. Professionals from the fields of child mental health, education and juvenile justice may be involved with the child and siblings. Professionals from adult mental health and probation may be involved with the parents. Child protection and social welfare agencies may also be involved.

With multi-problem families where there is multi-agency involvement, assessment is typically conducted over a number of sessions and involves meetings or telephone contact with the referring agent, the legal guardians of the child (if the child is not in the custody of the parents), the referred child, the parents, other family members who have regular contact with the referred child, the involved school staff, and other involved professionals. Home-based observation, observation of the child's behaviour at school, and observation of the child interacting in a group setting in a clinic or residential assessment centre may all provide information on the types of conduct difficulties displayed by the youngster and the patterns of interaction in which they are embedded.

Assessment of conduct problems and related clinical features may be conducted using the diagnostic criteria and list of clinical features set out in Tables 10.2–10.4. Parents, teachers and young people over 11 years may be asked to complete relevant versions of one of the following instruments listed in Table 4.1: the Strengths and Difficulties Questionnaire (SDQ), Achenbach System for Empirically Based Assessment (ASEBA), or Behavior Assessment System for Children Second Edition (BASC-2). In some clinical settings the Eyberg Child Behaviour Inventory and Sutter-Eyberg Student Behaviour Inventory-Revised (Eyberg & Pincus, 1999) or the Connors Rating Scales (Connors, 2008) are used specifically for assessing disruptive behaviour disorders instead of the SDQ, ASEBA or BASC. Both sets of instruments are multi-informant assessment packages and have good psychometric properties.

The framework presented in Figure 10.1 may be used as a guide for the assessment of predisposing, precipitating, maintaining and protective factors. An enormous body of empirical work has led to the identification of risk factors which predispose youngsters to develop conduct problems, to precipitating or exacerbating factors, and to personal and contextual factors which maintain these problems once they occur (Burke et al., 2002; Farrington, 1995; Hill, 2002; Kazdin, 1995; Lahey & Waldman, 2012; Loeber et al., 2000; Matthys, 2010; Moffitt & Scott, 2008; Murray & Farrington, 2010; Murrihy et al., 2010; Pardini & Frick, 2013; Scott, 2009; Thomas & Pope, 2012). The information presented in Figure 10.1 and the following discussion is based on the extensive reviews of studies of aetiological factors associated with conduct problems cited earlier.

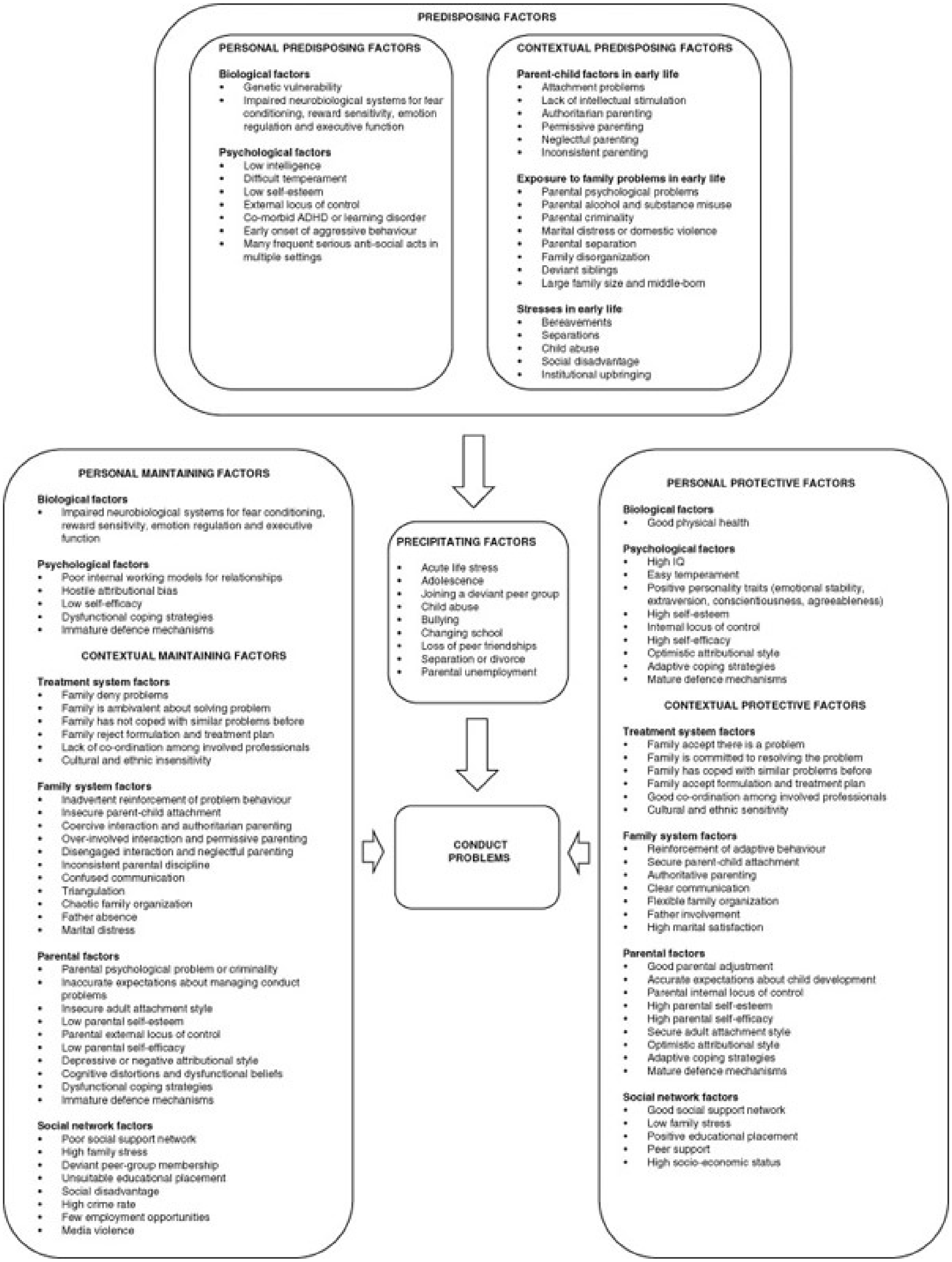


Figure 10.1 Factors to consider in childhood conduct problems

Predisposing factors

From Figure 10.1 it may be seen that predisposing risk factors for conduct disorder may be classified as those uniquely associated with the child and those associated with the social context within which the child lives.

Personal predisposing factors. Both biological and psychological factors may predispose youngsters to developing conduct disorders. At a biological level genetic factors may play a role in the aetiology of some cases of conduct disorder. The precise avenue through which genetic factors influence the development of conduct disorders is unclear. It may be that the genetic predisposition involves the physiological substrate governing reward and punishment processing and cognitive control (including emotion regulation and executive function).

Youngsters with difficult temperaments and co-morbid ADHD are at particular risk for developing conduct disorder. This may be because their difficulty in regulating negative emotional states such as anger and irritability and their difficulty in regulating their activity level make it more probable that they will experience affective or impulsive states that find expression in behaviour that violates social rules. Alternatively, difficulties in regulating affective states or impulses may make it difficult for them to internalize social rules. A further alternative is that some combination of both of these processes link temperament and ADHD to the development of conduct problems.

Once conduct problems develop, the age of onset, type, frequency, seriousness and pervasiveness of the problems have prognostic implications. Youngsters who first show conduct problems in early childhood and who frequently engage in many different types of serious misconduct such as aggression, destructiveness and deceitfulness in a wide variety of social contexts including the home, the school and the community have a particularly poor prognosis. This is probably because severe conduct problems with an early onset develop within disorganized family contexts that both engender them initially and then maintain them. Home-based conduct problems when they become entrenched and severe spread to the school and peer group. Non-deviant peers tend to reject youngsters with conduct problems and label them as bullies, forcing them into deviant peer groups which maintain conduct problems and encourage community-based delinquency. Many schools are not sufficiently well resourced to manage severe conduct problems and so deal with youngsters with conduct problems in ways that reinforce them. Low IQ and learning difficulties are also predisposing factors for conduct disorder. These issues of school-based attainment and conduct problems will be taken up in the section on contextual maintaining factors.

An external locus of control and low self-esteem may also predispose youngsters to developing conduct problems. The belief that major sources of reinforcement are outside of one’s control and negative self-evaluative beliefs may cause frustration which finds expression in aggressive and destructive acts.

Contextual predisposing factors. With respect to predisposing family-based risk factors, conceptual distinctions may be made between those associated with the parent–child relationship, those associated with the overall family structure and style of functioning, and those reflective of chronic early life adversity.

Neglect, abuse, separations, lack of opportunities to develop secure attachments and harsh, lax or inconsistent discipline are among the more important aspects of the parent–child relationship that place youngsters at risk for developing conduct disorder. Separation and disruption of primary attachments through neglect or abuse may prevent children from developing internal working models for secure attachments. Without such internal working models, the development of pro-social relationships and behaviour is problematic. With abuse and harsh discipline, children may imitate their parents' behaviour by bullying other children or sexually assaulting them. Also, abuse may lead to down-regulating the sensitivity of the HPA axis, so children are less responsive to rewards and punishments. Lax disciplinary procedures fail to provide children with a set of social norms to internalize to guide pro-social behaviour. Inconsistent discipline allows children to learn that on some occasions it is possible to get away with anti-social behaviour, and by implication that they should test every situation to check if it is one of these instances where there will be no consequences for negative behaviour. Coercive family process, described earlier, is an important facet of this.

Youngsters who come from families where parents are involved in criminal activity, have psychological problems, or who misuse drugs and alcohol are at risk for developing conduct problems. Parents involved in crime may provide deviant role models for children to imitate, and both psychological difficulties and alcohol and drug misuse may compromise parents' capacity to nurture and socialize their children. Risk factors related to the marital relationship range in severity from marital distress through domestic violence to parental separation. Marital problems contribute to the development of conduct problems in a number of ways. First, parents experiencing marital conflict or parents who are separated may have difficulty agreeing on rules of conduct and how these should be implemented. This may lead to inconsistent disciplinary practices, which is confusing for children, and compromises their capacity for internalizing rules for good conduct, Second, children exposed to domestic violence may imitate this in their relationships with others and display violent behaviour towards family, peers and teachers. Third, parents experiencing marital distress may displace anger towards each other onto the child in the form of harsh discipline, physical or sexual abuse. This in turn may lead the child, through the process of imitation, to treat others in similar ways. Fourth, where children are exposed to parental conflict or violence, they may experience a range of negative emotions including fear that their safety and security will be threatened, anger that their parents are jeopardizing their safety and security, sadness that they cannot live in a happy family, and conflict concerning their feelings of both anger towards and attachment to both parents. These negative emotions may find expression in antisocial conduct problems. Fifth, where parents are separated and living alone, they may find that the demands of socializing their child through consistent discipline in addition to managing other domestic and occupational responsibilities alone exceeds their personal resources. They may, as a result of emotional exhaustion, discipline inconsistently and become involved in coercive problem-maintaining patterns of interaction with their children.

Factors which characterize the overall organization of the family may predispose youngsters to developing conduct problems. Middle-born children with deviant older siblings in large, poorly organized families are at particular risk for developing conduct disorder. Such youngsters are given no opportunity to be the sole focus of their parents' attachments and attempts to socialize them. They also have the unfortunate opportunity to imitate the deviant behaviour of their older siblings. Overall family disorganization with chaotic rules, roles and routines, unclear communication, and limited emotional engagement between family members provides a poor context for learning pro-social behaviour. It is therefore not surprising that these, too, are risk factors for the development of conduct problems.

Social disadvantage, low socio-economic status, poverty, crowding and social isolation are broader social factors that predispose youngsters to developing conduct problems. These factors may increase the risk of conduct problems in a variety of ways.

First, low socio-economic status and poverty put parents in a position where they have few resources upon which to draw in providing materially for the family's needs, and this in turn may increase the stress experienced by both parents and children. There may be insufficient money for food, clothing and housing of adequate size and comfort. The housing arrangements may be crowded. The temperature within the house or apartment may be poorly regulated. For children, the stress associated with this material discomfort may find expression in conduct problems. The availability of funds for babysitters when parents need a break from cramped quarters may be scarce. This factor becomes all the more significant if the nuclear family are socially isolated from the family of origin and have no network of socially supportive friends on whom they can depend for such help. Coping with all of these material stresses may compromise parents' capacity to nurture and discipline their children in a tolerant manner.

The meaning attributed to living in circumstances characterized by low socio-economic status, poverty, crowding and social isolation is a second way that these factors may contribute to the development of conduct problems. The media in our society glorify wealth and the material benefits associated with it. The message given in the media is, if you want to be worthwhile and valued, then you should have wealth to purchase cars, clothes, holidays and a range of consumer goods. The implication is that to be poor is to be worthless. Both parents and children with low socio-economic status and little money living in crowded accommodation isolated from social support may experience frustration when they receive the media's message about their worth. This frustration may find expression in violent anti-social conduct or in theft as a means to achieve the material goals glorified by the media.

A third way that social disadvantage may contribute to the development of conduct problems hinges on the psychological resources of the parents. Disadvantaged parents may bring with them limited psychological resources for managing the difficult task of socializing children. For example, they may have limited education and poorly developed problem-solving skills. These limited psychological resources may be insufficient for the task of socializing children when coupled with other material resource problems such as poverty, crowding and isolation or other risk factors such as having a child with a difficult temperament who becomes involved in a delinquent sub-culture.

Precipitating factors

Conduct problems may have a clearly identified starting point associated with the occurrence of a particular precipitating event or they may have an insidious onset where a narrow pattern of normal defiance and disobedience mushrooms into a full-blown disruptive behaviour disorder. This latter course is associated with an entrenched pattern of ineffective parenting which usually occurs within the context of a highly disorganized family. Where there has been an insidious onset, a specific event such as the transition to secondary school may precipitate exacerbation of the problem or referral for treatment.

Acute stressful life events within the family; illness or injury (particularly brain injury); lifecycle transitions, particularly the onset of adolescence; changes in the child's social network, especially joining a deviant peer group; and victimization through child abuse or bullying can precipitate the onset or exacerbation of conduct problems or referral for treatment. Acute stressful life events within the family can include financial problems, sudden unemployment, major illnesses, changes in family residence, and changes in family composition including both losses and additions. Bereavement or parental separation are examples of losses. Additions include births, adoptions or situations where a step-parent joins a family. There are many processes by which such stressful life events precipitate the onset of conduct problems. Two of these are of particular importance. The first centres on the child's perception of the stressful event as threatening and the second centres on the demands that such stresses place upon the parents. Where youngsters construe the stressful event as a threat to safety or security, then conduct problems may occur as a retaliative or restorative action. For example, if a family move to a new neighbourhood, this may be construed as a threat to the child's security since important peer relationships may be lost. The child's running away may be an attempt to restore the security that has been lost by returning to the old peer group. If a separated mother develops a relationship with a new partner, the child may believe that the security of his relationship with the mother is being threatened and try to punish the new partner through extensive misconduct. Where parents find that the stressful event drains their psychological resources, then they may have insufficient energy to consistently deal with their children's misconduct and so may inadvertently become involved in coercive patterns of interaction which reinforce the youngster's conduct problems. For example, parents preoccupied by major financial problems or serious illness may have little energy for dealing consistently with misbehaviour.

The transition to adolescence may precipitate the development of conduct problems largely through entry into deviant peer groups and associated deviant recreational activities such as drug misuse or theft. With the increasing independence of adolescence, the youngster has a wider variety of peer group options from which to choose, some of which are involved in deviant anti-social activities. Where youngsters already have developed some conduct problems in childhood, and have been rejected by non-deviant peers, they may seek out a deviant peer group with which to identify and within which to perform anti-social activities such as theft or vandalism. Where youngsters who have few pre-adolescent conduct problems want to be accepted into a deviant peer group they may conform to the social pressure within the group to engage in anti-social activity.

Maintaining factors

Factors that maintain conduct disorders may be conceptually divided into those that fall within the personal and contextual domains.

Personal maintaining factors. Conduct problems may persist because of neurobiologically based deficits in processing rewards and punishments and cognitive control. That is, youngsters may be particularly unresponsive to punishment on the one hand and so have difficulty learning to avoid misconduct, while also being unresponsive to positive reinforcement on the other hand and so have difficulty developing pro-social behaviour. Conduct problems may also be maintained by difficulty regulating emotions and planning. The absence of internal working models of secure attachment to guide moral interpersonal behaviour may maintain conduct problems. This may be coupled with poor social problem-solving skills and a hostile attributional bias where the ambiguous social behaviour of others is interpreted as intentional aggression. These factors prevent youngsters from developing relationships with others based on trust, co-operation and commitment. The inability to form such relationships may maintain conduct problems by continually leading to the exclusion of youngsters from non-deviant peer groups and forcing them repeatedly into deviant social networks.

Low self-efficacy, where the young person does not believe it can succeed at specific tasks for attaining valued goals, may maintain conduct problems since anti-social behaviour may be viewed as a viable alternative to achieving these goals.

Immature defences such as displacement of anger or splitting and projection, where the youngster attributes positive qualities and intentions to certain parents, professionals, teachers or peers and negative qualities and intentions to others may maintain conduct problems by engendering conflictual relationships with parents, peers, teachers and helping professionals.

Dysfunctional coping strategies such as using drugs to regulate negative mood states may maintain conduct problems, particularly if drug dependence develops. Youngsters who develop dependence may repeatedly steal to secure funds to buy drugs required to prevent withdrawal symptoms from developing.

Contextual maintaining factors. Conduct problems may be maintained by a wide range of contextual factors. Within the youngster's family problematic parent–child relationships in which adequate support is not given to the child and where rules are either unclear or poorly enforced may maintain conduct problems. Thus parent–child relationships characterized by inadvertent reinforcement of deviant behaviour, insecure attachment, coercive interaction, and harsh, lax, inconsistent or neglectful parenting may all maintain conduct problems. These types of problematic parent–child relationships are more likely to occur in family cultures characterized by confused communication, triangulation and chaotic family organization. Such family cultures may be associated with problems within the parental system. Thus they may occur in families where there is marital distress or domestic violence or where the youngster's father lives outside the home and plays a marginal role in the child's life.

Parents' personal difficulties may maintain their children's conduct problem by compromising their capacity to offer adequate support and supervision to their children. Thus parents with debilitating psychological problems such as depression or borderline personality disorder, inaccurate knowledge about child development and management of misconduct, low parental self-efficacy, an external locus of control, and low self-esteem may lack the personal resources to consistently discipline their children and consistently offer care and understanding to them. Where parents lack internal working models for secure attachments, mature defence mechanisms and functional coping strategies for dealing with stress, they may find the challenges of parenting excessive and engage in interactions with their children which maintain their conduct problems.

Within the wider social system, high levels of stress associated with social disadvantage and low levels of social support may tax parents' personal coping resources to the limit and leave them depleted when faced with the challenges of dealing with children's conduct problems. In this sense conduct problems may be maintained by high levels of stress and low levels of support within the wider social network.

Where youngsters are exposed to deviant models through deviant peer-group membership and a sub-culture which endorses crime through residence in a high-crime area, their conduct problems may be maintained by these factors. This is particularly pertinent to situations where there are few employment opportunities or educational placements which can accommodate the youngster's educational needs.

A number of educational factors including the child's ability and achievement profile and the organization of the school learning environment may maintain conduct problems. In some cases, youngsters with conduct problems are truant from school and pay little attention to their studies and so develop achievement problems. In others, they have limited general abilities or specific learning disorders and so cannot benefit from routine teaching practices. In either case, poor attainment may lead to frustration and disenchantment with academic work and this finds expression in conduct problems, which in turn compromise academic performance and future employment prospects.

Schools that are not organized to cope with attainment problems and conduct problems may maintain these difficulties. Routinely excluding or expelling such children from school allows youngsters to learn that if they engage in misconduct, then all expectations that they should conform to social rules will be withdrawn. Where schools do not have a policy of working co-operatively with parents to manage conduct difficulties, conflict may arise between teachers and parents that maintains the child's conduct problems. Typically the parent sides with the child against the school and the child's conduct problems are reinforced. The child learns that if he misbehaves, and teachers object to this, then his parents will defend him.

These problems are more likely to happen where there is a poor overall school environment. Such schools are poorly physically resourced and poorly staffed so that they do not have remedial tutors to help youngsters with specific learning difficulties. There is a lack of consistent expectations for academic performance and good conduct. There may also be a lack of consistent expectations for pupils to participate in non-academic school events such as sports, drama or the organization of the school. There is typically limited contact with teachers. When such contact occurs there is lack of praise-based motivation from teachers and a lack of interest in pupils developing their own personal strengths.

When youngsters with conduct problems are referred for treatment and the parents and involved professionals fail to develop a good working alliance and co-operative inter-professional relationships, then these treatment system problems may maintain the youngster's conduct problems. Thus conduct problems may be maintained by parents' denial of their existence or refusal to accept the formulation and treatment plan or by a sense of confusion engendered by a lack of co-ordination among various involved professionals such as social workers, teachers, juvenile justice workers and so forth. Treatment systems that are not sensitive to the cultural and ethnic beliefs and values of the youngster's family system may maintain conduct problems by inhibiting engagement or promoting dropout from treatment and preventing the development of a good working alliance between the treatment team, the youngster and his or her family. Where parents have not dealt with similar problems in the past, they may feel overwhelmed by the challenge they pose. Where parents have come from a deviant family culture, they may be ambivalent about participating in treatment, since it may be the school or some other agency that sees the child's behaviour as the problem and not the parents. In these instances, parents' difficulties in co-operating fully with treatment may maintain their children's conduct problems.

Protective factors

Personal and contextual protective factors that increase the probability that youngsters with conduct problems will have a good outcome and respond to treatment are listed in Figure 10.1.

Personal protective factors. Abilities including high intelligence and good problem-solving skills, an easy temperament, positive personality traits including emotional stability, extraversion, conscientiousness and agreeableness, adaptive beliefs, particularly those associated with high self-esteem, self-efficacy and an internal locus of control, and physical health are all important personal protective factors. So too are an optimistic attributional style and the use of mature defences and functional coping strategies. These factors may work through a variety of mechanisms. For example, youngsters may be helped to harness their intelligence and problem-solving skills to learn to cope with adverse family, school and vocational situations, to develop an understanding of the long-range consequences of repetitive conduct problems and pro-social behaviour, and to develop the requisite social and vocational skills necessary for a non-deviant career. Positive self-evaluative beliefs and the perception of the self as controlling important aspects of the environment may both be employed in therapy as a springboard from which the youngster can make decisions about how to control their future so that they avoid future misconduct and crime. The capacity to make and maintain new friendships is an important coping strategy for resolving conduct problems if youngsters are involved with deviant peer groups which they may have to leave if they are to develop a non-deviant lifestyle.

Contextual protective factors. Positive family relationships, good parental adjustment, low stress and a high level of social support within the wider social network, a positive educational placement, and co-operative relationships between parents and involved professionals are among the more important contextual protective factors in cases of conduct disorder. Where children have positive relationships with their parents and experience secure attachment within these relationships, then they are more likely to respond to beneficial changes in the parents' disciplining style arising from treatment. This will be most likely in families where parents have a strong marital relationship, where there is clear communication and considerable flexibility. Parents may be better able to respond to family-based treatments such as parent training where they are in good psychological health, have high self-esteem, an internal locus of control and high parental self-efficacy. A non-deviant support network and role model are also probably protective for the child because they provide valued models for good behaviour and opportunities to engage in routines that are non-deviant. Previous experience within the family of resolving similar problems is a protective factor since it may enhance self-efficacy beliefs and it is also evidence that the family have problem-solving skills that may be used to address the presenting problems. A better response to treatment may be expected where parents accept that there is a problem, are committed to resolving it and accept the treatment team’s formulation and plan. Treatment systems that are sensitive to the cultural and ethnic beliefs and values of the youngster’s family are more likely to help families engage with, and remain in treatment, and foster the development of a good working alliance. Good inter-professional and inter-agency communication and co-ordination may also lead to a more positive response to treatment.

Formulation

Formulation in cases where conduct problems are the main reason for referral are invariably complex, since typically youngsters with conduct problems come from complex multi-problem families. An example of a formulation for a relatively straightforward case is given in Box 10.1. The key to good formulation in cases of conduct disorder is to identify specific conduct problems or target behaviours requiring treatment, and then link these to ongoing interaction patterns in the home, school and community that maintain them. Against this backdrop, any recent events that precipitated the referral or a recent exacerbation of the youngster’s anti-social behaviour may be identified, as well as background predisposing factors. Once this explanation of the principal conduct problems has been developed, all protective factors that might contribute to problem resolution may be listed.

Treatment

Treatment or case management contracts offered to families where children have conduct problems should be based on clear and comprehensive case formulations and aimed at specific treatment goals. The treatment literature underlines the extraordinarily poor outcome for cases of conduct disorder. Most traditional individual and group-based psychotherapeutic treatments have little sustained positive impact (Kazdin, 1997). However, recent research supports the effectiveness of family-oriented interventions along a continuum of care which extends from behavioural parent training through family therapy and multi-systemic therapy to treatment foster care (Carr, 2009; 2014a; Henggeler & Sheidow, 2012). Families of young children with less severe conduct problems may benefit from group-based behavioural parent training conducted on a weekly basis over 3–6 months. Families of older children and young adolescents with moderate conduct problems may require the more intensive intervention entailed by non-group-based parent training, family therapy and multi-systemic therapy. Here treatment is delivered to a single family rather than on a group basis and may involve more than one contact per week over a period of up to two years, with treatment components focusing on enhancing parenting skills, improving parents' self-regulation skills, improving family communication and problem solving, improving the young person's school performance and enhancing the youngster's social problem-solving skills. Older adolescents with chronic pervasive conduct problems may require treatment foster care, which is a particularly intensive approach to treatment. This involves placement of the youngster with behaviourally skilled and professionally supervised foster parents for a period of up to 9 months. Concurrently and afterwards a multi-systemic therapy package is offered to the youngster and his natural family with the aim of the adolescent returning home once his conduct problems have become manageable. For cases receiving multi-systemic therapy and treatment foster care, small case loads not exceeding 5–10 cases per key worker and 24-hour on-call availability for crisis intervention is an important feature of effective programmes. With treatment foster care the team support required for key workers is specified in Chapter 22.

For all cases of oppositional defiant disorder and conduct disorder a chronic-care rather than an acute-care model is the most appropriate to adopt. An intensive initial episode of therapy involving frequent contact and a high level of support should be followed by long-term but less intensive contact, except during lifecycle transitions and stressful crises. The following components are contained in effective treatment packages, although not all components will be necessary in all cases:

- psychoeducation
- monitoring anti-social and pro-social behavioural targets
- behavioural parent training with a focus on reward training and time-out
- family-based communication and problem-solving training
- home–school liaison meetings and remedial tuition
- child-based social problem-solving skills training
- parent counselling for managing personal or marital difficulties
- treatment foster care placement where families are extremely disorganized
- inter-professional and inter-agency co-ordination meetings.

In selecting specific components for inclusion in a treatment package for a specific case, interventions should target the systems in which the problems occur and are maintained. For oppositional defiant disorder, which is limited to the family context, the treatment package may be based around behavioural parent training. With chronic adolescent conduct problems, which occur in family, school and community settings, a multi-systemic intervention package may be required which includes family communication and problem-solving training for implementing contingency management programmes as the central component, with additional liaison with school and involved community agencies.

In all treatment programmes, psychoeducation should be included so parents acquire a problem-solving framework within which to make sense of their children's problems and the patterns of interaction within which they are embedded. Training in monitoring target behaviours is essential in all programmes also.

Where children present with school-based conduct problems or co-morbid learning problems, home–school liaison meetings are essential, and remedial tuition is appropriate where there are attainment difficulties.

It is important to include child-based social problem-solving skills training, particularly where youngsters have difficulties making and maintaining friendships.

Where parents experience high levels of life stress, limited social support and few personal coping resources, then parent counselling or therapy for managing these difficulties may be necessary. Without such input, parents may become overwhelmed and fail to consistently implement behavioural management programmes with their children. Where parents become repeatedly overwhelmed by life stresses coupled with the challenges of implementing behaviour programmes with their children, then treatment foster care may be appropriate. Initially the child with the conduct disorder is placed with trained foster parents who implement a behavioural programme to reduce conduct problems, while concurrently the natural parents receive behavioural parent training. The child returns for increasingly longer visits to the natural family, who use their parenting training and support from the foster parents to implement behavioural programmes to modify the child's conduct problems and improve the quality of parent–child relationships.

In all cases where other professionals or agencies are involved, inter-professional or inter-agency co-ordination meetings are essential to ensure that involved network members follow a co-ordinated plan.

What follows is a brief description of each of the possible components of a multi-systemic intervention programme for children and adolescents with conduct problems.

Psychoeducation

Conveying the idea that aggressive, destructive or defiant behaviour is not a reflection of an intrinsic negative characteristic of the child is central to psychoeducation in cases of conduct problems. Typically, by the time children have been referred for treatment, their parents have come to attribute all of their conduct problems to internal, global, stable negative factors. Through psychoeducation, parents are helped to move from viewing the child's conduct problems as proof that he is *intrinsically bad* to a position where they view the youngster as *a good child with bad habits* that are triggered by certain stimuli and reinforced by certain consequences. When parents bring their child to treatment, typically they are exasperated and want the psychologist to take the child into individual treatment and *fix* him. Through psychoeducation the parent is helped to see that the child's conduct problems are maintained by patterns of interaction within the family and wider social network, and therefore family and network members must be involved in the treatment process. Parents may be helped to shift towards this more useful way of viewing their children's misconduct by observing and monitoring the impact of antecedents and consequences on their child's behaviour either in the clinic or at home. Within the clinic, one parent may be invited to engage the child in supportive play following the guidelines set out in Table 4.4 in Chapter 4. The other parent may be invited to observe this and note the impact of attention praise and laughter on increasing the frequency of positive behaviours and the impact of ignoring negative behaviours on decreasing their frequency. Alternatively the session may be videotaped and reviewed by both parents with the therapist. In either case, the parent is asked to note how a specific target behaviour (such as hitting or playing appropriately) is controlled by antecedents (such as invitations or commands) and specific consequences (such as praise, attention, criticism or being ignored). Within the home, parents may be invited to keep a three-column diary of antecedents and consequences of specific positive and negative behaviours. These may be reviewed to show the relationships between specific behaviours and related contingencies. A sample four-column diary page is presented in Figure 10.2.

Explanations of Patterson's (1982) coercive cycle of interaction, where the child's escalating aggression is reinforced by causing the scolding parent to withdraw should also be given along with the rationale for time-out, the use of rewards systems and the use of supportive play. It is important to emphasize that time-out typically leads to an escalation of aggression initially before improvement occurs whereas with reward systems and supportive play there is a slow gradual and steady improvement in positive behaviour. Reward systems, behaviour control training using time-out and relationship enhancement using supportive play are all described in Chapter 4, and summaries of key features of these techniques are given in Tables 4.4–4.6.

Day and time	What happened **before** the target	**Target** behaviour	What happened **after** the target

Figure 10.2 Four-column chart for monitoring antecedents and consequences of positive and negative target behaviours

From clients' perspectives it is more useful if psychoeducation is woven into the fabric of the entire treatment programme rather than offered in a single one-off session. Thus, in every session when monitoring charts and homework assignments are reviewed, this opportunity may be used to define the child's conduct problems, as bad habits that may be changed through the use of behavioural parenting programmes rather than intrinsic characteristics of the child.

Monitoring

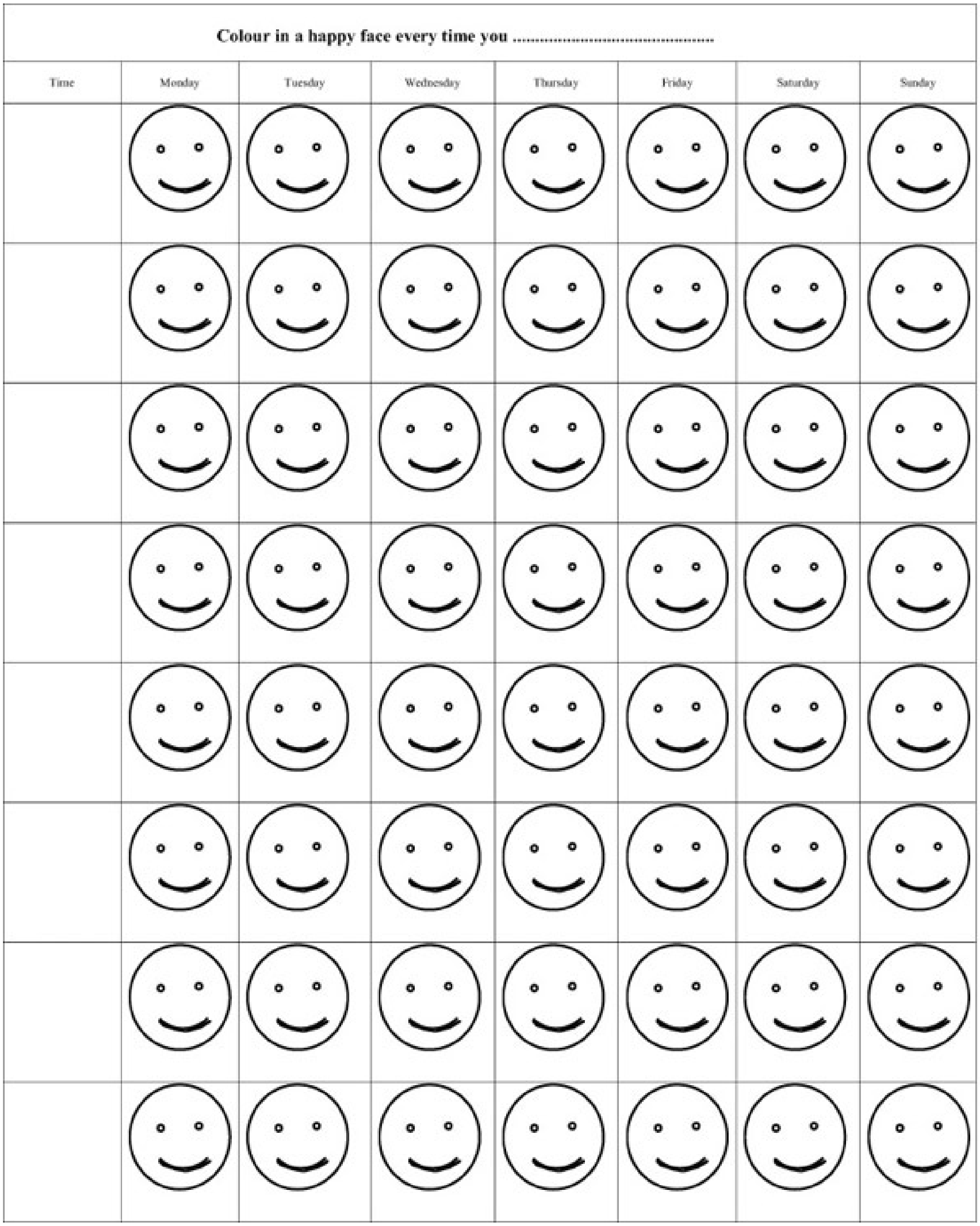
With conduct problems, during assessment a three-column chart such as that presented in Figure 10.2 may be used to identify antecedents and consequences of specific target behaviours during a specific time interval, such as between 6.00 pm and 7.00 pm each day. With such charts it is important to begin by monitoring no more than three negative behaviours and no more than three positive behaviours, since to try to do more than this may be confusing or tiring for the parents. Most parents need training in spotting instances of the target behaviour (such as hitting or helping) and in accurately describing the antecedents and consequences.

With pre-adolescent children, reward charts such as that presented in Figure 10.3 and time-out charts such as that presented in Figure 10.4 may be used as part of behavioural parent training. With teenagers, parents and children may keep a tally of points earned per day using a point system such as that presented in Figures 10.5 and 10.6. The home–school daily report card presented in Figure 10.7 may be used to help teachers and parents monitor progress on certain target behaviours throughout the school day.

With conduct problems, the process of monitoring progress using diaries or charts is important for several reasons. First, it shows that the child's behaviour is partly controlled by antecedents and consequences. Second, monitoring may suggest ways that conduct problems may be reduced by altering antecedents or consequences. Third, monitoring of points earned through a reward system or time spent in time-out helps parents who often feel overwhelmed by their children's difficulties to see that they are making progress, and for young children gaining points, stars or smiling faces on a reward chart may be intrinsically reinforcing.

Behavioural parent training

With young children who have oppositional defiant disorders, training parents to use behavioural techniques for disciplining children and maintaining positive relationships with them is a core component of effective treatment. In such programmes parents are helped, through psychoeducation, to view children's problems as being controlled by antecedent triggers on the one hand and positive and negative consequences on the other. They learn to identify and monitor positive and negative target behaviours. The also learn to pinpoint proximal and distal antecedents and positive and negative consequences using in-session observational training and monitoring charts such as those presented in Figure 10.2. Parents are coached in methods for developing solutions which involve using the principles of social learning theory to increase pro-social target behaviours and decrease aggression or other negative target behaviours. These solutions focus mainly on altering antecedents and consequences.



Colour in a happy face every time you ....

Time	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	☺	☺	☺	☺	☺	☺	☺
	☺	☺	☺	☺	☺	☺	☺
	☺	☺	☺	☺	☺	☺	☺
	☺	☺	☺	☺	☺	☺	☺
	☺	☺	☺	☺	☺	☺	☺
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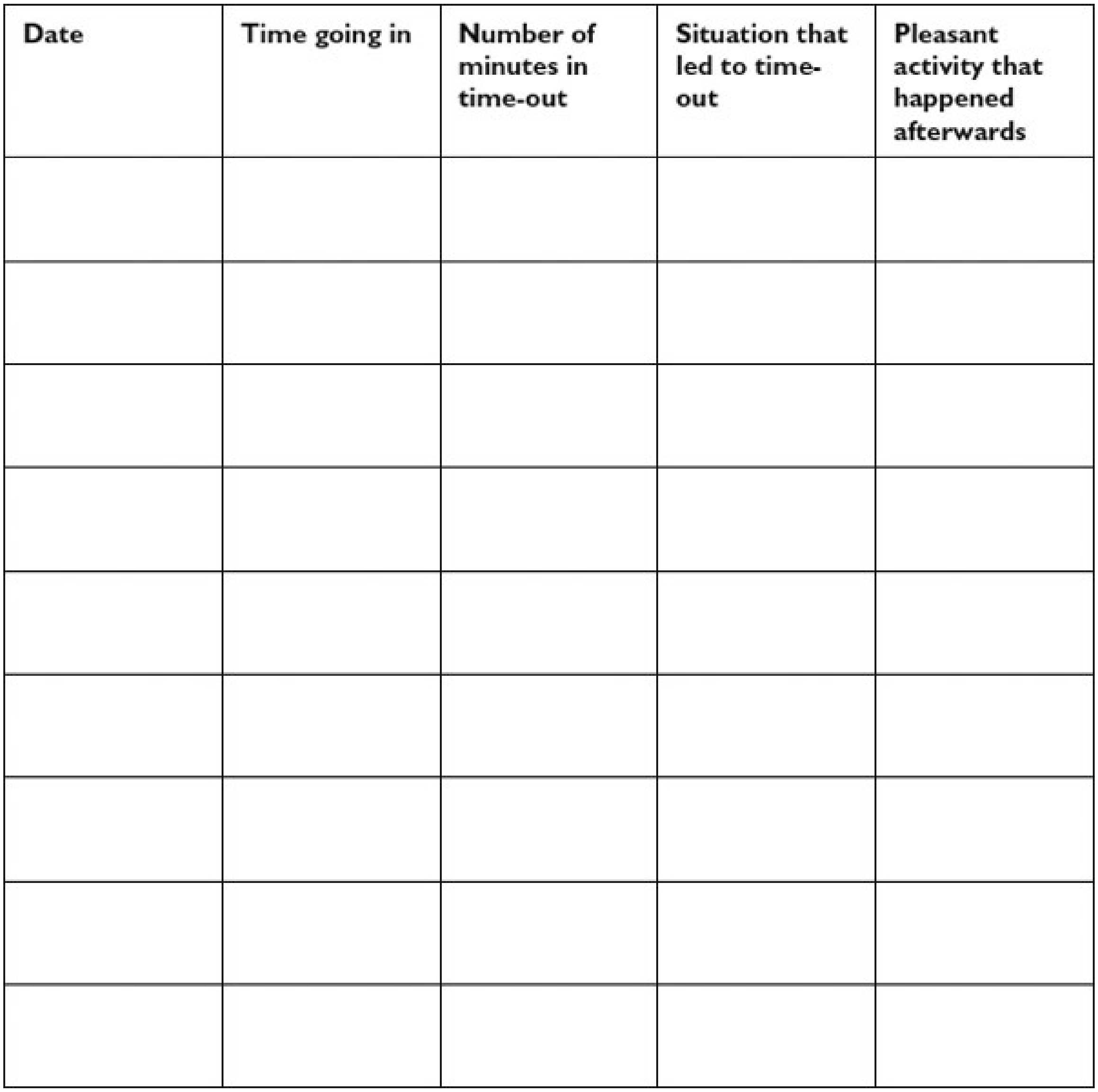
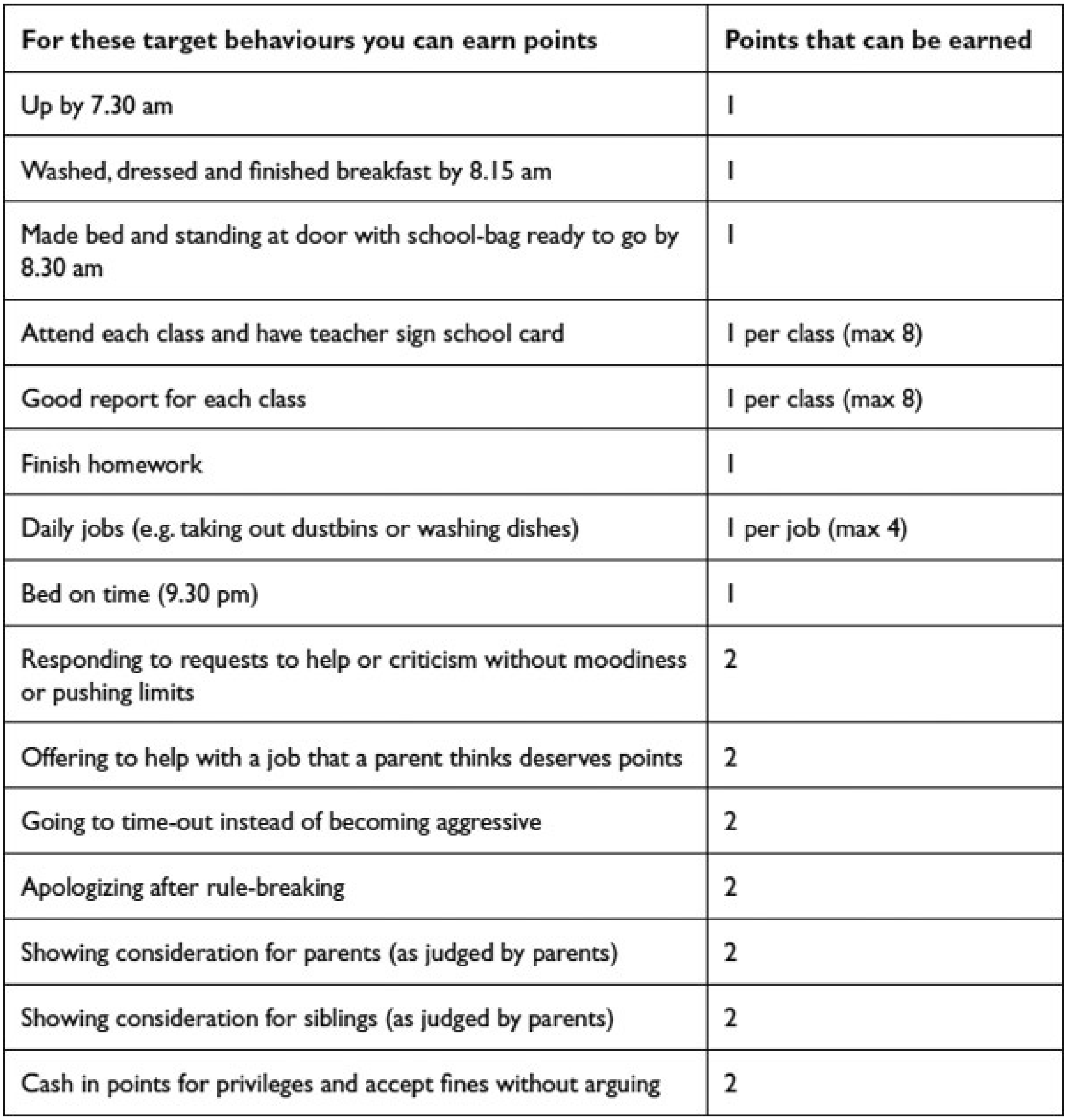
Figure 10.3 Child's reward chart for conduct problems

Reducing anti-social behaviour. Solutions for decreasing anti-social behaviour by altering antecedents include eliminating or reducing the conditions that precede aggressive behaviour, reducing children's exposure to situations in which they observe aggressive behaviour, and reducing children's exposure to situations which they find aversive, uncomfortable or tiring, since such situations reduce their capacity to control aggression. In practice such solutions often involve helping parents to plan regular routines for managing daily transitional events such as rising in the morning or going to bed at night, preparing to leave for school or returning home after school, initiating or ending leisure activities and games, starting and finishing meals, and so forth. The more predictable these routines become, the less likely they are to trigger episodes of aggression or other conduct problems. Within therapy sessions or as homework, parents and children may develop a lists of steps for problematic routines and place the list in a prominent place in the home until the routine becomes a regular part of family life. Parents may also be coached to teach their children to use internal speech (self-instructions) to both talk themselves through these predictable routines and to regulate negative mood states that may occur when routines are disrupted. For example, if a child becomes frustrated when unable to find a school-bag while completing a getting-ready-for-school routine, the parent may prompt the child to use self-instructions to calm down and conduct a systematic search for the school-bag rather than have a tantrum.



Date	Time going in	Number of minutes in time-out	Situation that led to time-out	Pleasant activity that happened afterwards

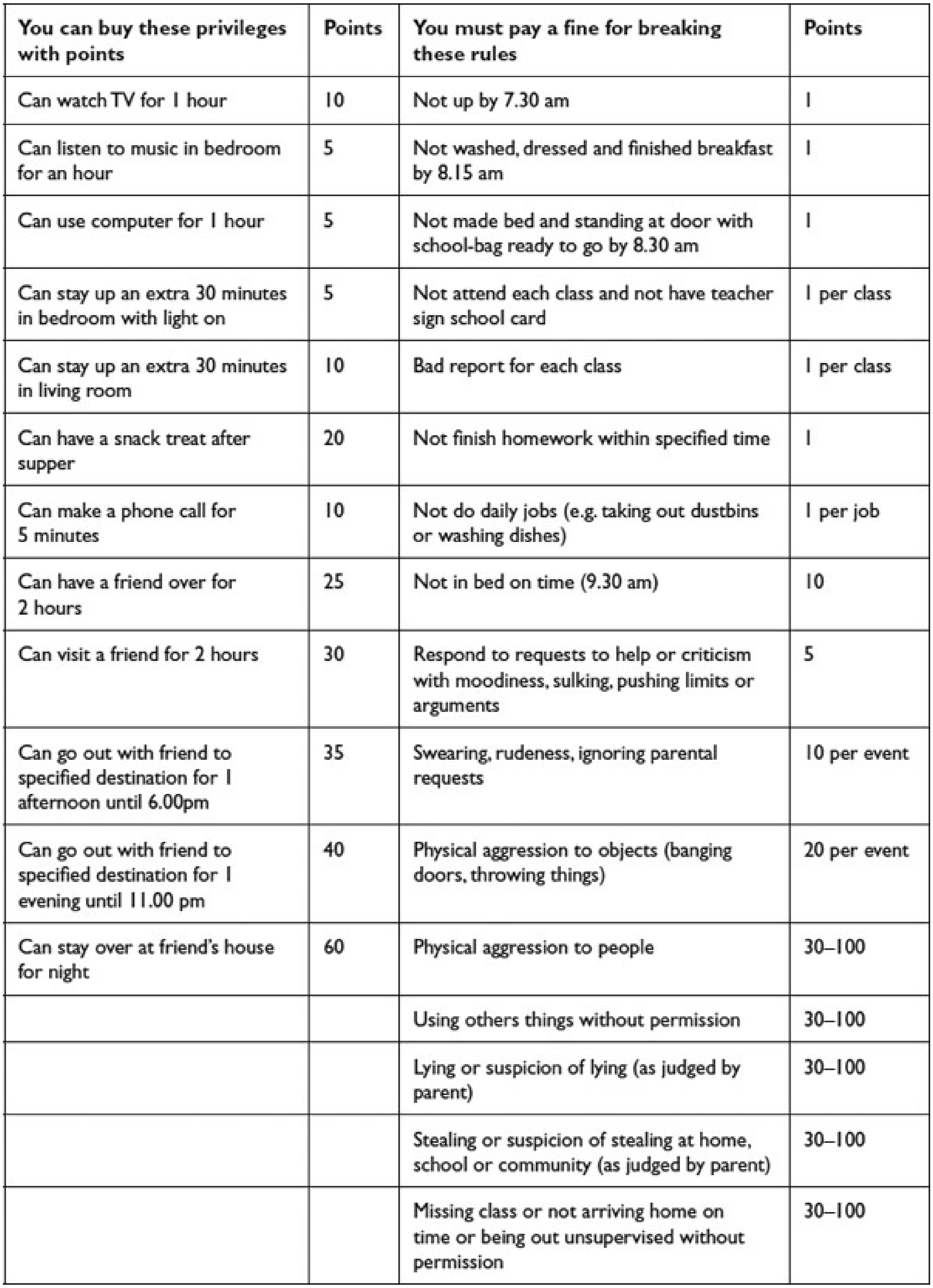
Figure 10.4 Time-out monitoring chart



For these target behaviours you can earn points	Points that can be earned
Up by 7.30 am	1
Washed, dressed and finished breakfast by 8.15 am	1
Made bed and standing at door with school-bag ready to go by 8.30 am	1
Attend each class and have teacher sign school card	1 per class (max 8)
Good report for each class	1 per class (max 8)
Finish homework	1
Daily jobs (e.g. taking out dustbins or washing dishes)	1 per job (max 4)
Bed on time (9.30 pm)	1
Responding to requests to help or criticism without moodiness or pushing limits	2
Offering to help with a job that a parent thinks deserves points	2
Going to time-out instead of becoming aggressive	2
Apologizing after rule-breaking	2
Showing consideration for parents (as judged by parents)	2
Showing consideration for siblings (as judged by parents)	2
Cash in points for privileges and accept fines without arguing	2

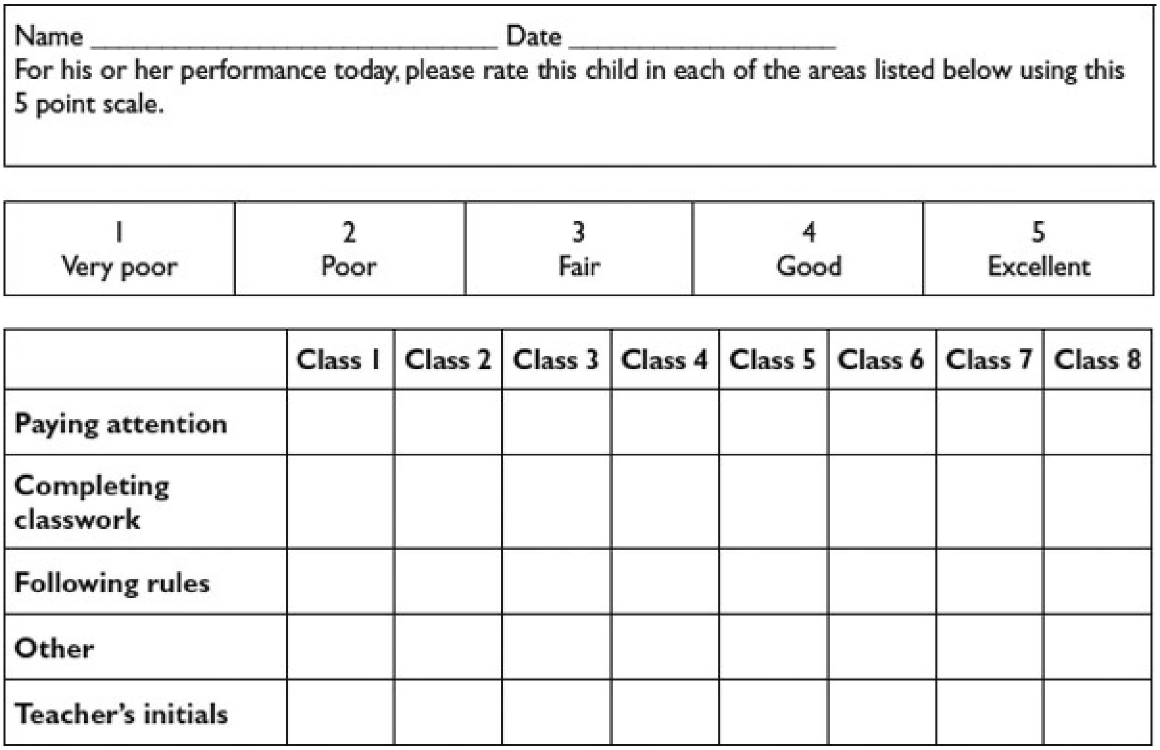
Figure 10.5 Points chart

Solutions to reduce anti-social behaviour by altering consequences include helping parents to ignore minor displays of anti-social behaviour and use time-out or deprivation of privileges as a response to aggression or anti-social behaviour. Parents may also be helped to teach their children to use internal speech (self-instructions) to regulate their anti-social behaviour. Time-out has been described in Chapter 4 and guidelines for using it as part of a behaviour control programme are presented in Table 4.6. With time-out specific negative or aggressive behaviours are defined as targets for which time-out from reinforcement is given. When these behaviours occur, the parent gives a command to the child to stop and this may be followed up by two warnings. If children comply they are praised. If not, they are brought to time-out without any display of anger or any reasoned explanation being given at that time. During time-out, the child sits on chair in the corner of the kitchen or in their bedroom away from interesting or reinforcing events or toys. Following a period of 2–5 minutes (depending upon the child's age), the child is invited to re-join family activities and is engaged in a stimulating and rewarding exchange with the parent. If children misbehave or protest aggressively while in time-out, they remain there until they have been compliant and quiet for 30 seconds before re-joining family activities and engaging in a stimulating interaction with the parent. With time-out, parents need to be told that initially the child will show an escalation of aggression and will offer considerable resistance to being asked to stay in time-out. However, this resistance will reach a peak and then begin to decrease quite rapidly. This predicted pattern may be monitored using the chart presented in Figure 10.4.



You can buy these privileges with points	Points	You must pay a fine for breaking these rules	Points
Can watch TV for 1 hour	10	Not up by 7.30 am	1
Can listen to music in bedroom for an hour	5	Not washed, dressed and finished breakfast by 8.15 am	1
Can use computer for 1 hour	5	Not made bed and standing at door with school-bag ready to go by 8.30 am	1
Can stay up an extra 30 minutes in bedroom with light on	5	Not attend each class and not have teacher sign school card	1 per class
Can stay up an extra 30 minutes in living room	10	Bad report for each class	1 per class
Can have a snack treat after supper	20	Not finish homework within specified time	1
Can make a phone call for 5 minutes	10	Not do daily jobs (e.g. taking out dustbins or washing dishes)	1 per job
Can have a friend over for 2 hours	25	Not in bed on time (9.30 am)	10
Can visit a friend for 2 hours	30	Respond to requests to help or criticism with moodiness, sulking, pushing limits or arguments	5
Can go out with friend to specified destination for 1 afternoon until 6.00pm	35	Swearing, rudeness, ignoring parental requests	10 per event
Can go out with friend to specified destination for 1 evening until 11.00 pm	40	Physical aggression to objects (banging doors, throwing things)	20 per event
Can stay over at friend's house for night	60	Physical aggression to people	30–100
		Using others things without permission	30–100
		Lying or suspicion of lying (as judged by parent)	30–100
		Stealing or suspicion of stealing at home, school or community (as judged by parent)	30–100
		Missing class or not arriving home on time or being out unsupervised without permission	30–100

Figure 10.6 Privileges and fines



Name ______________________________ Date __________________

For his or her performance today, please rate this child in each of the areas listed below using this 5 point scale.

1	2	3	4	5
Very poor	Poor	Fair	Good	Excellent

	Class 1	Class 2	Class 3	Class 4	Class 5	Class 6	Class 7	Class 8
Paying attention								
Completing classwork								
Following rules								
Other								
Teacher's initials								

Figure 10.7 Daily report card

Increasing pro-social behaviour. Solutions to increase pro-social behaviour by altering antecedents include increasing the conditions that precede pro-social behaviour, increasing children's exposure to situations in which they observe pro-social altruistic behaviour, and increasing children's exposure to situations which they find emotionally satisfying, such as episodes of supportive play with parents as described in Table 4.4.

Solutions to increase pro-social behaviour by altering consequences include the use of reward systems such as those described in Chapter 4 and Table 4.5. With pre-adolescents, reward charts for children like that set out in Figure 10.3 may be used as part of such programmes. When the child accumulates a certain number of smiling faces these may be exchanged for a tangible and valued reward such as a trip to the park or an extra bedtime story. With teenagers, a points system may be used. Here points may be acquired by carrying out specific behaviours and points may be lost for rule-breaking. On a daily or weekly basis points may be exchanged for an agreed list of privileges. An example of such a point system is set out in Figures 10.5 and 10.6.

Children's pro-social behaviour may also be increased through training parents in shaping. Here they are shown how to routinely give immediate praise for approximations to desired pro-social behaviour.

Parents may also be coached in modelling and reinforcing their children for using pro-social behaviours to achieve goals they typically achieve through aggression and destructiveness. Where such behaviours are complex, parents may be coached in breaking down large sequences of pro-social behaviour into small parts and rewarding children for completing each of the small steps.

Designing behavioural parent training programmes. In a typical behaviour control programme, for a specific set of positive and negative target behaviours, a clear set of rules and consequences are agreed. The importance of the parents following through on the consequences and of keeping a record of the frequency of positive and negative target behaviours is highlighted. Good behaviours are typically rewarded through praise and points recorded on a chart. These may be cashed in for rewards agreed between the parents and the child. Conduct problems and rule violations result in time-out or loss of privileges.

This type of behaviour control programme is more acceptable to children if it is framed as a game for learning self-control or learning how to be *grown up* and if the child is involved in designing and using the reward chart. Parents should be encouraged not to hold grudges after episodes of negative behaviour and time-out and also to avoid negative mind-reading, blaming, sulking or abusing the child physically or verbally during the programme. Implementing a programme like this can be very stressful for parents since the child's behaviour often deteriorates before it improves. Parents need to be made aware of this and encouraged to ask their spouses, friends or members of their extended family for support when they feel the strain of implementing the programme. Finally, the whole family should be encouraged to celebrate success once the child begins to learn self-control.

To increase the chances of a contingency-based behaviour control programme being effective, it is useful to arrange for parents and pre-adolescent children to have regular episodes of supportive play following the guidelines described in Chapter 4 and Table 4.4. With adolescents, some joint activity in which the adolescent takes a leading rather than a following role may be arranged. In either case, the function of these parent–child interaction episodes is to provide a forum within which the child regularly receives unconditional positive regard and attention from the parent. Parents need to be coached in how to finish these episodes by summarizing what the parent and child did together and how much the parent enjoyed it. Help the parent to view the episode as an opportunity for giving the child the message that they are in control of what happens and that the parent likes being with them. Advise the parent to foresee rule-breaking and prevent it from happening. Finally, invite parents to notice how much they enjoy being with their children.

Throughout the programme, all adults within the child's social system (including parents, step-parents, grandparents, childminders, etc.) are encouraged to work co-operatively in the implementation of the programme, since these programmes tend to have little impact when one or more significant adults from the child's social system do not implement the programme as agreed. Parents may also be helped to negotiate with each other so that the demands of disciplining and coaching the children are shared in a way that is as satisfactory as possible for both parents.

Running a behaviour control programme for the first 2 weeks is very stressful for most families. The normal pattern is for the time-out period to increase in length gradually and then eventually to begin to diminish. During this escalation period, when the child is testing out the parents' resolve and having a last binge of self-indulgence before learning self-control, it is important to help parents to be mutually supportive. The important feature of spouse support is that the couple set aside time to spend together without the children to talk to each other about issues unrelated to the children. In single-parent families, parents may be helped to explore ways for obtaining support from their network of friends and members of the extended family.

Formats for behavioural parent training. Empirically supported, behavioural parent training programmes include the Incredible Years programme (Webster-Stratton & Reid, 2010), the Parents Plus programme (Sharry & Fitzpatrick, 2008, 2012; Sharry, Hampson et al., 2013; Sharry, Murphy et al., 2013), the Triple P programme (Sanders & Murphy-Brennan, 2010), the Parent Management Training – Oregon Model programme (Forgatch & Patterson, 2010), Parent–Child Interaction Therapy (Zisser & Eyberg, 2010), Kazdin's Parent Management Training and Problem Solving Skills Training programme (Kazdin (2010), and the Parenting-Wisely programme (Cefai et al., 2010).

These programmes have a number of noteworthy features. Some are designed to be offered to individual families (e.g. Parent–Child Interaction Therapy), while others are designed to be offered to groups of parents (e.g. Parents Plus and Incredible Years). The individual family training approach has the advantage that parenting skills may be practiced in the session and immediate feedback given to parents on their use of parenting skills and to the child on their use of self-control skills. However, it is costly of therapists' time. In small-group parent training, parents are given instructions and video demonstrations and complete rehearsal and role-playing exercises. While the benefits of immediate coaching in an actual family situation are not available when this approach is used, parents receive the social support offered by other members of their training groups.

Video modelling is used in some programmes (e.g. the Incredible Years programme and the Parenting Plus programme). Parents view videotaped vignettes of how to address specific parenting challenges, discuss these and practise them in role-playing exercises. They are invited to implement the parenting skills between sessions, and this homework is then reviewed in subsequent sessions.

Some programmes provide parents with immediate feedback to facilitate the development of parenting skills. In Parent–Child Interaction Therapy parents are coached in supportive play and behaviour control techniques such as reward systems and time-out, in a play-room situation with a one-way mirror and 'bug in the ear' communication system. Initially the therapist briefs the parents in how to use supportive play or behaviour control systems and then models these skills. The parents then try to use the skills with their own child in the play room, while the therapist watches through a one-way screen and prompts, shapes and reinforces the parents through the “bug in the ear” communication system.

A distinctive feature of the Parenting Wisely programme is that it may be taken online, with minimal therapist contact. The programme was designed specifically for parents and families that find it challenging to engage in group-based parent training or family therapy. Following a preliminary assessment session, parents are shown how to use the interactive programme to train themselves in parenting skills. The programme contains a series of vignettes which depict common parenting challenges. After viewing each of these, parents select and view further vignettes presenting one of series of possible responses to these challenges. Thus, they have the opportunity to see both appropriate effective and ineffective parenting responses and to receive feedback on their choices. Once they have seen a correct response, they are then given a knowledge test to check that they have learned the parenting skill. Feedback on this test is also given to shape and reinforce parenting skill acquisition.

Some programmes are developmentally staged. For example there are versions of the Parents Plus programme for families with pre-school and school-aged children and for adolescents.

Some programmes have child-focused interventions which may be offered in parallel with parent training. For example, Kazdin’s programme includes Problem-Solving Skills Training for children, and the Incredible Years programme includes a Dinosaur School programme for young people.

Other programmes have additional modules for teaching parents self-regulation, problem-solving and communication skills (e.g. the Incredible Years programme).

Not all cases can benefit from parent training. Chaotic families tend to derive less benefit and are more prone to dropping out of routine treatment. Mothers with insecure attachment styles arising from unresolved loss or trauma benefit less from parent training programmes than mothers with secure attachment styles (Routh et al., 1995).

Family-based communication and problem-solving training

To deal with adolescent conduct problems in most industrialized cultures, parents (and in some instances step-parents, foster parents and grandparents) must share a strong alliance and conjointly agree on household rules, roles and routines that specify what is and is not acceptable conduct for the young person. Consequences for violating rules or disregarding roles and routines must be absolutely clear. Once agreed, rewards and sanctions associated with rules, roles and routines must be implemented consistently by parents (and step-parents, foster parents or grandparents if they are involved in the young person’s day-to-day life). Unilateral parent training with minimal involvement of the child in therapy can be effective with pre-adolescents, but with the increased autonomy that comes with adolescence, involvement of teenagers in at least some conjoint sessions with their parents becomes quite important, since rules and consequences must be negotiated. Parents and teenagers with conduct problems are unskilled in the art of negotiation, and so it is not surprising that effective treatment programmes for adolescent conduct problems include communication and problem-solving training as the core component for adolescents with conduct difficulties. Functional Family Therapy (Alexander et al., 2013; Sexton, 2011), Multidimensional Family Therapy (Liddle, 2010) and Multisystemic Therapy (Henggeler & Schaeffer, 2010) are examples of evidence-based models of family therapy for adolescent conduct problems and delinquency which include parent–adolescent communication and problem-solving skills training. The aim of such training is to help parents and teenagers communicate clearly with each other and negotiate a set of rules, roles and routines, and consequences associated with adhering to or breaking rules. Rules should be clear, negotiated and fair as judged by the norms of the family's culture. Routines should be predictable and regular within the constraints of the family's culture. Roles, particularly those of parents and children, should be unambiguous and separated by clear inter-generational boundaries.

In multi-problem families where adolescents have pervasive conduct disorders, training in communication skills must precede problem-solving skills training and negotiation of rules and consequences. It is not uncommon for such families to have no system for turn-taking, speaking and listening. Rarely is the distinction made between talking about a problem so that all viewpoints are aired and negotiating a solution that is acceptable to all parties.

The aim of communication skills training is to equip parents and teenagers with the skills required to take turns at speaking clearly and presenting their viewpoint in an unambiguous way on the one hand, and listening carefully so that they receive an accurate understanding of the other person's viewpoint on the other. Coaching family members in communication skills may follow the broad guidelines set out in Chapter 4 and Table 4.2. The roles of speaker and listener are clearly distinguished. The speaker is invited to present their viewpoint, uninterrupted, and when they have finished the listener summarizes what they have heard and checks the accuracy of their recollection with the speaker. These skills are taught using non-emotive material using modelling and coaching. Then family members are shown how to list problems related to the adolescent's rule-breaking and discuss them one at a time, beginning with those that are least emotionally charged, with each party being given a fair turn to state their position or to reply. When taking a speaking turn, family members should be coached in how to decide on specific key points that they want to make, organize them logically, say them clearly and unambiguously, and check that they have been understood. In taking a turn at listening, family members should be coached to listen without interruption, summarize key points made by the other person and check that they have understood them accurately before replying. Where ever possible, 'I' statements rather than 'you' statements should be made. For example 'I want to be able to stay out until midnight and get a cab home on Saturday' is an 'I' statement. 'You always ruin my Saturday nights with your silly rules' is a 'you' statement. There should be an agreement between the psychologist and the family that negative mind-reading, blaming, sulking, abusing and interrupting will be avoided and that the psychologist has the duty to signal when this agreement is being broken.

Problem-solving skills training may follow the guidelines set out in Chapter 4 and Table 4.3. Family members may be helped to define problems briefly in concrete terms and avoiding long-winded, vague definitions of the problem. They should be helped to sub-divide big problems into a number of smaller problems and tackle these one at a time. Tackling problems involves brainstorming options, exploring the pros and cons of these, agreeing on a joint action plan, implementing the plan, reviewing progress and revising the original plan if progress is unsatisfactory. However, this highly task-focused approach to facilitating family problem solving needs to be coupled with a sensitivity to emotional and relationship issues. Family members should be facilitated in their expression of sadness or anxiety associated with the problem and helped to acknowledge their share of the responsibility in causing the problem but also their understandable wish to deny this responsibility. Premature attempts to explore pros and cons of various solutions motivated by anxiety should be postponed until brainstorming has run its course. Finally families should be encouraged to celebrate successful episodes of problem solving.

Families may use their communication and problem-solving skills to develop and implement programmes such as that presented in Figures 10.5 and 10.6. It may also be necessary for parents and teenagers to negotiate about the adolescent's behaviour at school and within the peer group. In the next two sections home–school liaison and therapy for peer problems are discussed.

Home–school liaison meetings and remedial tuition

Many adolescents with conduct problems engage in anti-social behaviour at school and have co-morbid learning difficulties. School interventions should address both conduct and academic problems. School-based conduct problems may be managed by arranging a series of meetings involving a representative of the school, the parents and the adolescent. The goal of these meeting should be to identify target conduct problems to be altered by implementing a programme of rewards and sanctions run jointly by the parents and school staff, in which acceptable target behaviour at school is rewarded and unacceptable target behaviour at school leads to loss of privileges at home. In Figure 10.7 an example of a daily report card for use in home–school liaison programmes is presented. A critical aspect of home–school liaison meetings is facilitating the building of a working relationship between the parents and the school representative, since often family–school relationships are antagonistic in cases of conduct disorder (Dowling & Osborne, 1994). The psychologist should continually provide both parents and teachers with opportunities to voice their shared wish to help the child develop good academic skills and control over their conduct problems. Where youngsters also have academic under-achievement problems, it is important for the psychologist and teachers to take the steps necessary to arrange remedial tuition and study skills training as described in Chapter 8.

Social problem-solving skills training

Adolescents with conduct problems, it was noted earlier, often are characterized by a hostile attributional bias and poor social problem-solving skills. These problems underpin their difficulties in making and maintaining non-deviant peer relationships. Typically the main peer problems faced by youngsters with conduct problems is that they are isolated and have difficulty joining a peer group, or they are a member of a deviant peer group and have difficulty leaving this and joining a non-deviant peer group. Individual or group-based social problem-solving skills training may be used to help youngsters who have peer problems develop the skills necessary to manage peer group relationships more effectively (Kazdin, 2010; Shure & Aberson, 2013). In this type of treatment, the therapist takes an active role as a coach or instructor and trains the youngster to handle social situations in a systematic way. Examples of various social situations provide a focus for training sessions. Common social situations dealt with in this type of therapy include joining a group of peers who are already playing a game or involved in a discussion, contributing to a group discussion in a non-aggressive way, giving compliments, asking a peer to engage in an activity, handling refusals, managing differences of opinion and dealing with authority. The examples may be offered by the therapist or elicited from youngsters in the group. For each example the therapist helps youngsters through modelling, role-play, shaping and reinforcement to develop the following skills:

- accurately assessing problematic social situations
- generating a range of solutions to such problem situations
- anticipating the immediate and long-term impact of these solutions
- implementing the most appropriate solution
- learning from feedback
- using self-instructions to guide oneself through these steps.

Special attention should be given to perspective-taking and empathizing with the viewpoints of others and managing anger by reinterpreting situations and using distraction, breathing and relaxation skills. Youngsters may be encouraged to view ambiguous social situations positively and problematic social situations as opportunities to use their newly learned skills and master problems rather than as threats to their self-esteem. Insofar as this occurs, this type of therapy allows youngsters to correct their hostile attributional biases. Between sessions, homework assignments may be given in which youngsters try out their newly learned skills and then report back to the therapist and the group on their successes and failures.

Parent counselling

Adolescents with pervasive conduct problems typically come from multi-problem families in which parents have limited resources for coping with high levels of stress and low levels of social support. Often these parents find it difficult to follow through on plans to implement rules, roles and routines worked out in therapy sessions. The parents' own psychological difficulties, marital problems and life stresses prevent them from sticking to their plans to provide consistent rewards or sanctions for rule-following or rule-breaking behaviour, particularly during the early stages of therapy. As a result of this, the youngster's conduct problems persist.

There are two main types of effective solution to this problem: parent counselling and treatment foster care. With treatment foster care, the child may be placed with a foster family trained in social learning theory–based methods for socializing children with conduct problems (Smith & Chamberlain, 2010). As the conduct problems abate and as the natural parents are concurrently trained to negotiate with their youngster and implement consistent rewards or sanctions for rule-following or rule-breaking behaviour, the youngster spends increasingly longer visits with the natural parents. Thus the burden of socializing the child is shared by the natural parents and the foster parents. Treatment foster care is discussed more fully in Chapter 22.

With parent counselling, the parents are provided with individual or marital counselling to help them better manage their personal and marital difficulties so that these factors will not compromise their capacity to follow through on implementing consistent rewards or sanctions for rule-following or rule-breaking behaviour.

The art of effective family work with multi-problem families where children present with conduct problems is to keep a substantial portion of the therapy focused on resolving the conduct problem by altering the pattern of interaction between the child and the parents that maintains the conduct difficulties, and only to deviate from this focus into wider family issues when it is clear that the parents will be unable to maintain focus without these wider issues being addressed. Where parents have personal or marital difficulties and require individual or marital counselling or therapy, ideally separate sessions should be allocated to these problems; other members of the involved professional network may be designated to manage them or a referral to another agency may be made. Common problems include maternal depression, social isolation, financial difficulties, paternal alcohol and substance abuse and marital crises. A danger to be avoided in working with multi-problem families is losing focus and becoming embroiled in a series of crisis intervention sessions which address a range of family problems in a haphazard way.

Inter-professional and inter-agency co-ordination meetings

Adolescents with pervasive conduct problems which occur in family, school and community settings typically become involved with multiple agencies and professions in the fields of health, education, social services and law enforcement. In addition, other members of their families commonly have connections to multiple agencies and professionals. Co-ordinating multi-systemic intervention packages and co-operating with other involved agencies for these multi-problem youngsters from multi-problem families with multi-agency involvement is a major challenge. First, it is important to keep a list of all involved professionals and agencies and to keep these professionals informed of your involvement. Second, arranging periodic co-ordination meetings is vital so that involved professionals and family members share a joint view of the overall case management plan. Guidelines for managing and contributing to such review meetings are given in Chapter 4.

Consulting to high-support units

Despite the ineffectiveness of imprisonment or out-of-home institutional placement of youngsters with severe conduct disorders, this practice still occurs (Lipsey & Cullen, 2007). Clinical psychologists may be asked to consult to such 'high-support' units, usually during crises where adolescents have become violent. Structured risk assessment procedures such as the Historical Clinical Risk Management 20-item checklist may be used in making judgements about the risk of future violence in specific cases (Webster et al., 1997). While violent youngsters in such units may have primary conduct disorders, their violence may be due to other conditions such as psychosis which require careful evaluation. Following thorough assessment of such incidents, involving interviews with staff and residents, and immediate crisis intervention, five main classes of interventions may be considered to reduce the frequency of future episodes within whole units. The first of these is training staff at the high-support unit to set clear behavioural rules and routines and a points system for rewarding or sanctioning compliance with rules, like that given in Figures 10.5 and 10.6. The second is the introduction of a unit-wide anger management initiative for youngsters, such as aggression replacement training (Glick & Gibbs, 2010). The third intervention is training staff to minimize potential precipitating triggers for violent outbursts within the unit. This may involve developing a culture of calm respectful conversation that minimizes opportunities for communication difficulties or humiliation of youngsters; regular routines for eating, sleeping, working and exercising; and a non-stressful physical environment which does not entail excessive heat, cold, noise, crowding and so forth. The fourth intervention is to train staff in de-escalation routines for use where youngsters are in danger of becoming violent. These routines involve ceasing confrontation; encouraging youngsters to use distraction, breathing and relaxation routines to calm down; using communication and active listening skills to clarify misunderstanding; and providing a safe, face-saving way for the youngster to re-enter the routine of the unit after a potentially violent crisis. The final intervention is to support staff in developing and implementing a policy for using physical restraint in situations where de-escalation fails (American Academy of Child and Adolescent Psychiatry, 2002). Staff training in safe but effective restraint skill is a central part of such policies. Restraint routines should specify the number of staff required; the specific permissible holds; the duration of these holds; the conditions under which seclusion, physical or chemical restraint may be used; the nature and frequency of monitoring of youngsters' well-being during restraint; written documentation of the use of physical restraint; and the timing and nature of psychiatric and psychological assessment of youngsters following episodes of restraint.

Prevention

Clinical psychologists have an important role to play in designing and implementing primary prevention programmes for families at risk for conduct difficulties. Such programmes ideally should be community-based, target at-risk families, and involve empirically validated pre- and post-natal home-visiting programmes and early childhood parent training programmes or child-focused self-regulation skills training programmes for young children (Grove et al., 2008; Welsh & Farrington, 2009).

Summary

Conduct problems are the most common type of referral to child and family outpatient clinics. Children with conduct problems are a treatment priority because the outcome for more than half of these youngsters is very poor in terms of criminality and psychological adjustment. In the long term the cost to society for unsuccessfully treated conduct problems is enormous. Median prevalence rates for oppositional defiant disorder and conduct disorder are both 3.7%. These difficulties are far more common among boys. Co-morbidity for conduct disorders and both ADHD and emotional problems such as anxiety and depression is very high particularly in clinic populations. The central clinical features are defiance, aggression and destructiveness; anger and irritability; pervasive relationship difficulties within the family, school and peer group; and difficulties with social cognition. Specifically, there is a failure to internalize social norms and a negative bias in interpreting ambiguous social situations. Biological theories have focused on the roles of genetic factors, hormonal factors and arousal levels in the aetiology of conduct problems. Classical psychoanalytic theory points to super-ego deficits and object relations theorists highlight the role of disrupted attachments in the development of conduct disorders.

Within the cognitive-behavioural tradition theories have been developed to explain conduct problems in terms of a hostile attributional bias, social skills deficits, modelling of anti-social behaviour and coercive family process. Systems theories highlight the role of families, social networks and societal systems in the aetiology and maintenance of conduct problems. Treatment of conduct problems must be based on a comprehensive formulation of the child's and family's difficulties which takes account of predisposing, precipitating and maintaining factors within the child, the family and the wider social system. Such formulations should be based on thorough multi-systemic assessment. With oppositional defiant disorders in pre-adolescent children whose problems are confined to the home, behavioural parent training is the treatment of choice. With older children and adolescents who present with pervasive conduct problems, a multi-systemic intervention programme targeting specific problem maintaining processes or potential problem-resolving processes within the child, the family and the school is the most effective approach to treatment. Clinical psychologists have important roles to play in consulting to high-support units for violent delinquent youngsters and in the development of prevention programmes for at-risk populations. The approach to assessment and management of disruptive behaviour disorders described in this chapter is consistent with international best practice guidelines (e.g. American Academy of Child and Adolescent Psychiatry, 1997a; NICE, 2013b).

Exercise 10.1

Ken is an 8 year old child who is referred because he has reading difficulties and conduct problems at school. He is also very difficult to handle at home and rarely does as he is told. He hits his mother regularly, breaks his toys and steals. His mother, Sally, is 26 and is at her wits' end. She thinks Mrs Johnson, the headmistress, doesn't understand Ken and is picking on him. Sally is a single parent, having left Ronnie, Ken's father, 7 years ago following a number of violent episodes. Ronnie has moved away from the town where Ken and Sally live and has little contact with them. Sally has had a series of live-in boyfriends but none in the past year. She has no siblings and her father is dead. Her mother has a serious alcohol abuse problem and contacts her periodically looking for money. Sally has been hospitalized three times for depression and is currently on antidepressants. Sally would like something done about the school situation and Mrs Johnson would like treatment for Ken whom she thinks is emotionally disturbed.

1. Draw up a preliminary formulation for this case, specifying probable predisposing, precipitating, maintaining and protective factors.
2. Draw up a plan for your assessment interviews with the mother, child and headmistress and list any tests or checklists you would use in this case.
3. Role-play the first interviews.

4. Role-play helping the mother identify two positive and two negative behavioural targets and training the mother to use time-out for the negative targets and a reward chart for the positive targets.

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Websites

Functional Family Therapy: http://www.functionalfamilytherapy.com and http://www.fftllc.com

Incredible Years: http://www.incredibleyears.com/

Kazdin's Yale Parenting Center: http://yaleparentingcenter.yale.edu/

Multisystemic Therapy: http://www.mstservices.com/

Oregon Treatment Foster Care: http://www.mtfc.com/

Parent–Child Interaction Therapy: http://pcit.phhp.ufl.edu/

Parenting Wisely: https://www.parentingwisely.com and http://www.familyworksinc.com

Parent Management Training Oregon Model: http://www.isii.net/

Parents Plus: http://www.parentsplus.ie

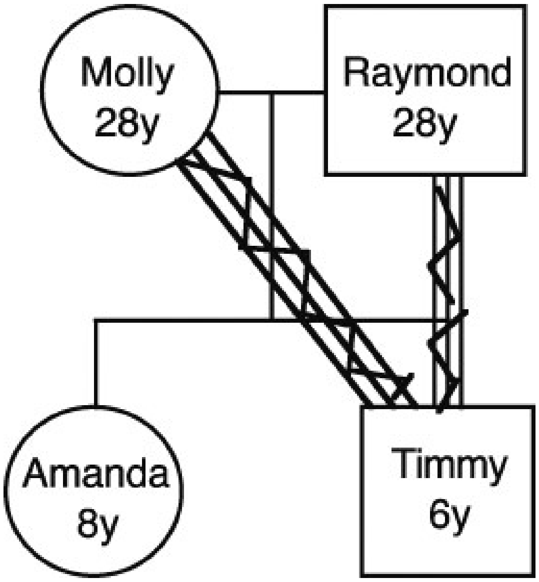
Triple P: http://www.triplep.net/glo-en/home/

Chapter 11

Attention and over-activity problems

Attention deficit hyperactivity disorder (ADHD), attention deficit disorder (ADD), hyperkinetic disorder (HKD), hyperkinesis, minimal brain dysfunction, minimal brain damage (MBD), and disorder of attention, motor control and perception (DAMP) are some of the terms used for a syndrome characterized by persistent over-activity, impulsivity and difficulties in sustaining attention (Barkley, 2014a; Daly et al., 2009; Hamblin & Gross, 2012; Nigg, 2013a, 2013b; Taylor & Sonuga-Barke, 2008; Wolraich & DuPaul, 2010). Children with such difficulties were first described in modern medical literature by George Still in 1902. Throughout this chapter preference will be given to the term attention deficit hyperactivity disorder (ADHD) since this is currently the most widely used term. A case example of a child with ADHD is presented in Box 11.1. ADHD is a particularly serious problem because youngsters with the core difficulties of inattention, over-activity and impulsivity may develop a wide range of secondary academic and relationship problems. Attentional difficulties may lead to poor attainment in school. Impulsivity and aggression may lead to difficulties making and maintaining appropriate peer relationships and developing a supportive peer group. Inattention, impulsivity and over-activity make it difficult for youngsters with these attributes to conform to parental expectations, and so children with ADHD often become embroiled in chronic conflictual relationships with their parents. In adolescence impulsivity may lead to excessive risk-taking with consequent complications such as drug misuse, overeating, road traffic accidents and dropping out of school. All of these risk-taking behaviours have knock-on effects and compromise later adjustment in relationships, work settings and health. Accidental injuries and obesity are more prevalent among adults with ADHD than the normal population. As youngsters with ADHD become aware of their difficulties with regulating attention, activity and impulsivity and the failure that these deficits lead to within the family, peer group and school, they may also develop low self-esteem and depression. In light of the primary problems and secondary difficulties that may evolve in cases of ADHD, it is not surprising that for some the prognosis is poor. For about two-thirds of cases, the primary problems of inattention, impulsivity and hyperactivity persist into late adolescence and for some of these the primary symptoms persist into adulthood. Roughly a third develop significant anti-social behaviour problems in adolescence including conduct disorder and substance misuse and for most of this sub-group, these problems persist into adulthood leading to criminality. Suicide attempts occur in a small but significant minority of cases and at a higher rate than in the normal population.

Box 11.1 A case example of ADHD: Timmy, the motorboat



Referral. Timmy, aged 6, was referred for assessment because his teachers found him unmanageable. He was unable to sit still in school and concentrate on his schoolwork. He left his chair frequently and ran around the classroom shouting. This was distracting for both his teachers and classmates. Even with individual tuition he could not apply himself to his schoolwork. He also had difficulties getting along with other children. They disliked him because he disrupted their games. He rarely waited for his turn and did not obey the rules. At home he was consistently disobedient and according to his father ran ‘like a motorboat’ from the time he got up until bedtime. He often climbed on furniture and routinely shouted rather than talked at an acceptable level.

Family history. Timmy came from a well-functioning family. The parents had a stable and satisfying marriage and together ran a successful business. Their daughter, Amanda, was a well-adjusted and academically able 8 year old. The parents were careful not to favour the daughter over her brother or to unduly punish Timmy for his constant disruption of his sister’s activities. However, there was a growing tension between each of the parents and Timmy. While they were undoubtedly committed to him, they were also continually suppressing their growing irritation with his frenetic activity, disobedience, shouting and school problems. Within the wider family there were few resources that the parents could draw on to help them cope with Timmy. The grandparents, aunts and uncles lived in another county and so could not provide regular support for the parents. Furthermore, they were bewildered by Timmy's condition, found it very unpleasant and had gradually reduced their contact with Timmy's nuclear family since his birth.

Psychometric assessment and child interview. Psychometric evaluation showed that Timmy's overall IQ was within the normal range, but he was highly distractible and had literacy and numeracy skills that were significantly below his overall ability level. On both the parent report ASEBA Child Behaviour Checklist and the ASEBA Teacher Report Form Timmy's scores were above the clinical cut-off for the attention problem sub-scale and the anxious/depressed sub-scale. Timmy perceived himself to be a failure. He believed that he could not do anything right at home or at school and he was sad that the other children did not want to play with him. He believed that his teacher disliked him and doubted his parents' love for him.

Developmental history. There were a number of noteworthy features in Timmy's developmental history. He had suffered anoxia at birth and febrile convulsions in infancy. He had also had episodes of projectile vomiting. His high activity level and demandingness were present from birth. He also displayed a difficult temperament, showing little regularity in feeding or sleeping; intense negative emotions to new stimuli; and was slow to soothe following an intense experience of negative emotion.

Formulation. Timmy was a 6 year old boy with home- and school-based problems of hyperactivity, impulsivity and distractibility of sufficient severity to warrant a diagnosis of ADHD. The problems were long-standing and there was no discrete factor that precipitated his condition. However, his entry into the school system precipitated the referral. Possible predisposing factors included anoxia at birth, subtle neurological damage due to febrile convulsions in infancy and a difficult temperament. In Timmy's case ADHD had led to academic attainment difficulties, peer relationship problems and tension within the family. This wider constellation of difficulties underpinned Timmy's diminishing self-esteem which in turn exacerbated his problems with attainment, peer relationships and family relationships. The absence of an extended family support system for the parents to help them deal with Timmy's difficulties was also a possible maintaining factor. Important protective factors in this case were the commitment of the parents to resolving the problem and supporting Timmy and the stability of Timmy's nuclear family.

Treatment. Treatment in this case involved both psychosocial and pharmacological intervention. The psychosocial intervention included parent and teacher education about ADHD, behavioural parent training, self-instructional training for the child, a classroom-based behavioural programme and provision of periodic relief care/holidays with specially trained foster parents. Timmy was also prescribed a twice-daily dose of methylphenidate (Ritalin). These interventions led to a significant reduction in his disruptive behaviour at home and school, as well as improvement in his academic performance and the quality of his relationships with his parents, teachers and friends.

Classification and clinical features

In DSM-5 (APA, 2013), ICD-10 (WHO, 1992) and ASEBA (Achenbach & Rescorla, 2000, 2001) different terms are used for the syndrome of inattention, over-activity and impulsivity. In Table 11.1 the DSM-5 diagnostic criteria for ADHD, the ICD-10 criteria for hyperkinetic disorder and items from the ASEBA Attention Problems Syndrome scale are presented. ASEBA items have been grouped into those associated with inattention, over-activity and impulsivity to aid comparison with DSM and ICD diagnostic criteria. The most noteworthy feature of the syndromes described in the DSM, ICD and ASEBA systems is their similarity. Historically, a narrow definition of the syndrome has been used in the UK, with great emphasis being placed on the stability of attentional and over-activity problems across home and school contexts. In contrast, in the US, this cross-situation stability has not been a core diagnostic criterion until the publication of the current edition of the DSM. ADHD symptoms are dimensionally distributed within populations, and the narrow and broad syndromes reflect points on this continuum. The role of genetic factors and response to stimulant treatment is similar for both the narrow and broadly defined syndromes (Taylor & Sonuga-Barke, 2008).

The clinical features of ADHD in the domains of cognition, affect, behaviour, physical health and interpersonal adjustment are presented in Table 11.2. With respect to cognition, short attention span, distractibility and an inability to foresee the consequences of action are the main features. Other important cognitive deficits include poor time estimation, poor planning skills, language delay, delayed internalization of speech, language impairment, learning difficulties, memory deficits and poor school performance. There is usually a poor internalization of the rules of social conduct and in some instances low self-esteem may be present. With respect to affect, excitability associated with lack of impulse control is the dominant emotional state. This may be coupled with depressed mood associated with low self-esteem in some cases. Also, anger associated with poor frustration tolerance may be a significant clinical feature. With ADHD it is the high rate of activity, common co-morbid aggressive anti-social behaviour, excessive risk-taking and under-developed adaptive behaviour associated with inattention that are the cardinal behavioural features. In young children the delay in motor development and clumsiness may occur. Young people with ADHD also show low 'conditionability'. That is, they find it hard to learn and internalize routines, skills and rules. With respect to physical health in ADHD, youngsters may show immature bone growth and short stature. Neurological examination may reveal minor physical abnormalities and neurological soft signs. In some instances food allergies may be present. Injuries or medical complications associated with anti-social or risk-taking behaviour such as fighting and drug abuse may also occur. Relationship difficulties with parents, teachers and peers are the principal interpersonal adjustment problems. Difficulties with turn-taking in games due to impulsivity make children with ADHD poor playmates. The failure of children with ADHD to internalize rules of social conduct at home and to meet parental expectations for appropriate social and academic behaviour leads to conflictual parent–child relationships. In school, youngsters with ADHD pose classroom management problems for teachers and these children invariably have problems benefiting from routine teaching and instructional methods. For these reasons, their relationships with teachers tend to be conflictual.

Table 11.1 Diagnosis of ADHD and attention deficit and hyperactivity syndromes

DSM-5 Attention Deficit Hyperactivity Disorder	*ICD-10 Hyperkinetic Disorders*	*ASEBA ATTENTION PROBLEMS SYNDROME*
A. A persistent pattern of inattention and/or hyperactivity-impulsivity that interferes with functioning or development, as characterized by (1) and/or (2): 1. **Inattention**. Six (or more) of the following symptoms have persisted for at least 6 months to a degree that is inconsistent with developmental level and that negatively impacts directly on social and academic/occupational activities: Note: The symptoms are not solely a manifestation of oppositional behavior, defiance, hostility, or	The cardinal features are impaired attention and over-activity. Both are necessary for the diagnosis and should be evident in **more than one situation** (e.g. home or school). **Impaired attention** is manifested by prematurely breaking off from tasks and leaving activities unfinished. The children change frequently from one activity to another, seemingly losing interest in one task because they	**FOR 1.5–5 YEAR OLDS** **Inattention** Inattentive (T) Can’t concentrate (P&T) Difficulty with directions (T) Fails to carry out tasks (T) **Over-activity** Cant sit still (P&T) Fidgets (T) Quickly shifts from one activity to another (P&T) Wanders away (P&T) Clumsy (P&T) **FOR 6–18 YEAR OLDS**

failure to understand tasks or instructions. For older adolescents and adults (age 17 and older), at least five symptoms are required.

a. Often fails to give close attention to details or makes careless mistakes in schoolwork, at work, or during other activities (e.g., overlooks or misses details, work is inaccurate).
b. Often has difficulty sustaining attention in tasks or play activities (e.g., has difficulty remaining focused during lectures, conversations, or lengthy reading).
c. Often does not seem to listen when spoken to directly (e.g., mind seems elsewhere, even in the absence of any obvious distraction).
d. Often does not follow through on instructions and fails to finish schoolwork, chores, or duties in the workplace (e.g., starts tasks but quickly loses focus and is easily sidetracked).
e. Often has difficulty organizing tasks and activities (e.g.,

become diverted to another. These deficits in persistence and attention should be diagnosed only if they are excessive for the child's age and IQ.

Over-activity implies excessive restlessness, especially in situations requiring relative calm. It may, depending upon the situation, involve the child running and jumping around, getting up from a seat when he or she was supposed to remain seated, excessive talkativeness and noisiness, or fidgeting and wriggling. The standard for judgement should be that the activity is excessive in the context of what is expected in the situation and by comparison with other children of the same age and IQ. This behavioural feature is most evident in structured, organized situations that require a high degree of behavioural self-control.

The characteristic behaviour problems should be of early onset (before the age of 6 years) and long duration.

Inattention

Inattentive (P&T&C)
Can't concentrate (P&T&C)
Confused (P&T&C)
Daydreams (P&T&C)
Stares blankly (P&T)
Difficulty following directions in school (T)
Fails to carry out tasks in school (T)
Fails to finish tasks (P&T&C)
Difficulty learning (T)
Poor schoolwork (P&T&C)
Messy schoolwork (T)
Underachieving (T)

Over-activity

Can's sit still (P&T&C)
Fidgets (T)
Talks too much (T&C)

difficulty managing sequential tasks; difficulty keeping materials and belongings in order; messy, disorganized work; has poor time management; fails to meet deadlines).

f. Often avoids, dislikes, or is reluctant to engage in tasks that require sustained mental effort (e.g., schoolwork or homework; for older adolescents and adults, preparing reports, completing forms, reviewing lengthy papers).

g. Often loses things necessary for tasks or activities (e.g., school materials, pencils, books, tools, wallets, keys, paperwork, eyeglasses, mobile telephones).

h. Is often easily distracted by extraneous stimuli (for older adolescents and adults, may include unrelated thoughts).

i. Is often forgetful in daily activities (e.g., doing chores, running errands; for older adolescents and adults, returning calls, paying bills, keeping appointments).

Associated features include disinhibition in social relationships, recklessness in situations involving some danger, impulsive flouting of social rules, learning disorders, and motor clumsiness.

Specify type

Hyperkinetic disorder with disturbance of activity and attention when antisocial features of conduct disorder are absent.

Brags (T&C)
Shows off (T&C)
Whining (C)
Makes odd noises (T)
Apathetic in school (T)
Irresponsible in school (T)
Acts too young (P&T&C)

Impulsivity

Impulsive (P&TC)
Talks out of turn (T)
Disturbers other children in school (T)
Disrupts discipline in school (T)
Items marked (P)

2. **Hyperactivity-Impulsivity**. Six (or more) of the following symptoms have persisted for at least 6 months to a degree that is inconsistent with developmental level and that negatively impacts directly on social and academic/occupational activities:

Note: The symptoms are not solely a manifestation of oppositional behavior, defiance, hostility, or a failure to understand tasks or instructions. For older adolescents and adults (age 17 and older), at least five symptoms are required.

a. Often fidgets with or taps hands or feet or squirms in seat.

b. Often leaves seat in situations when remaining seated is expected (e.g., leaves his or her place in the classroom, in the office or other workplace, or in other situations that require remaining in place).

c. Often runs about or climbs in situations where it is inappropriate. (Note: In adolescents or

Hyperkinetic conduct disorder when criteria for both conduct disorder and hyperkinetic disorder are met.

are on the parent report Child Behaviour Checklist

Items marked (T) are on the Teacher Report form

Items marked (C) are on the Youth Self-Report form adults, may be limited to feeling restless.)

d. Often unable to play or engage in leisure activities quietly.

e. Is often “on the go,” acting as if “driven by a motor” (e.g., is unable to be or uncomfortable being still for extended time, as in restaurants, meetings; may be experienced by others as being restless or difficult to keep up with).

f. Often talks excessively.

g. Often blurts out an answer before a question has been completed (e.g., completes people’s sentences; cannot wait for turn in conversation).

h. Often has difficulty waiting his or her turn (e.g., while waiting in line).

i. Often interrupts or intrudes on others (e.g., butts into conversations, games, or activities; may start using other people’s things without asking or receiving permission; for adolescents and adults, may intrude into or take over what others are doing).

B. Several inattentive or hyperactive-impulsive symptoms were present prior to age 12 years.
C. Several inattentive or hyperactive-impulsive symptoms are present in two or more settings (e.g., at home, school, or work; with friends or relatives; in other activities).
D. There is clear evidence that the symptoms interfere with, or reduce the quality of, social, academic, or occupational functioning.
E. The symptoms do not occur exclusively during the course of schizophrenia or another psychotic disorder and are not better explained by another mental disorder (e.g., mood disorder, anxiety disorder, dissociative disorder, personality disorder, substance intoxication or withdrawal).
(For specifiers, see DSM-5, pp. 60–61.)

Note: DSM-5 diagnostic criteria are reprinted with permission from the *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition* (APA, 2013). Copyright © 2013 American Psychiatric Association. The material in the column headed ICD-10 is a summary of the clinical description and diagnostic guidelines for hyperkinetic disorder. For the full official WHO clinical descriptions and diagnostic guidelines for this disorder see WHO, 1992, pp. 262–265. The material in the column headed ASEBA is adapted from Achenbach and Rescorla, 2000, 2001.

Table 11.2 Clinical features of ADHD

Domain	*Features*
Cognition	• Short attention span • Distractibility • Unable to foresee consequences of behaviour • Poor time estimation • Poor planning skills • Language delay, delayed internalization of speech and language impairment • Learning difficulties, memory deficits and poor school performance • Low self-esteem • Lack of conscience
Affect	• Poor self-regulation and lack of impulse control • Excitability • Low frustration tolerance and anger • Low mood
Behaviour	• High rate of activity • Delay in motor development and clumsiness • Low ‘conditionability’ • High level of risk-taking behaviour (e.g. sports, anti-social behaviour and fast driving) • Under-developed adaptive behaviour
Physical condition	• Immature physical size and bone growth • Minor physical abnormalities • Neurological soft signs • Allergies • Increased respiratory infections and otitis media • Accident prone and high rate of injury
Interpersonal adjustment	• Problematic relationships with parents, teachers and peers

The following features have been used to sub-type ADHD:

- the pervasiveness of the problem
- presence or absence of both inattention and hyperactivity
- presence of co-morbid disorders.

The occurrence of the symptoms both within and outside the home, presence of both inattention and over-activity, and the presence of conduct disorder are all associated with a more serious condition which is less responsive to treatment and which has a poorer outcome (McArdle et al., 1995). From Table 11.1 it may be seen that both the DSM and ICD distinguish between sub-types of ADHD depending upon the patterning of symptomatology or the presence of co-morbid conditions. In DSM the main distinctions are between cases where inattention and over-activity are present or absent whereas co-morbid conduct problems is the basis for sub-typing in ICD. DSM also distinguishes between mild, moderate and severe sub-types.

The inattentive and over-active or combined sub-types of ADHD have distinct profiles (Hinshaw, 1994; Taylor & Sonuga-Barke, 2008). Children with the inattentive sub-type of ADHD are described clinically as sluggish, apathetic daydreamers who are easily distracted and have difficulty completing assigned tasks within school because of learning difficulties. Within their family history there is a preponderance of learning disorders and emotional disorders such as anxiety and depression. Those with the hyperactive-impulsive or combined sub-type of ADHD are characterized by extreme over-activity, oppositional and aggressive behaviours. Conduct problems are their most notable school-based difficulties and they have a high rate of school suspension and special educational placement. Within their family history they have a preponderance of anti-social problems such as drug abuse and criminality, and children with the hyperactive-impulsive profile are at risk for long-term anti-social behaviour problems and poor social adjustment. Children with the inattentive, hyperactive-impulsive and combined sub-types of ADHD have significant relationship difficulties with peers, school staff and family members and both respond to psychostimulant treatment, although the inattentive sub-type tends to respond to a lower dosage.

The primary distinction made in the ICD system is between hyperkinetic conduct disorder, where a co-morbid conduct disorder is present, and cases where such co-morbidity is absent. Hinshaw (1994) in a review of differences between these two sub-groups concluded that those children with co-morbid conduct disorder show greater academic problems and suffer more extreme relationship difficulties with peers, teachers and family members. While they show some response to psychostimulant treatment, they rarely respond to psychosocial individual and family interventions.

ADHD with co-morbid emotional disorders such as anxiety or depression is not sub-classified as a distinct condition within either ICD or DSM. Children with such co-morbid profiles have been found to have a later onset for the disorder, fewer learning and cognitive problems, and to be less responsive to stimulant medication than youngsters without co-morbid anxiety (Taylor, 1994).

Biederman et al. (1993) found distinctive ASEBA profiles for ADHD children with and without other co-morbid problems. Those with ADHD only obtained elevations on the attentions problems sub-scale. Those with co-morbid conduct disorder showed elevations in addition on the delinquent (rule-breaking) behaviour and aggressive behaviour scales. Elevations on the anxious/depressed scale characterized cases with co-morbid anxiety disorders and elevations on thought problems and aggressive behaviour occurred in cases where there was a co-morbid mood disorder.

In Nordic countries the diagnostic category of disorder of attention, motor control and perception (DAMP) is used by some clinicians to classify children with developmental delays or deficits in the areas of attention, gross and fine motor skills, perception, and speech and language (Gillberg, 2003). DAMP is a modern attempt to operationalize the earlier term minimal brain dysfunction (or damage). DAMP refers to ADHD with co-morbid developmental co-ordination disorder and specific language delay. The criteria for DAMP include both those for DSM ADHD and those for DSM developmental co-ordination disorder which is characterized by a significant delay in the development of gross and fine motor skills and clumsiness. In severe DAMP significant speech and language delay may also be present. DAMP is, therefore, a broader category than DSM ADHD and far broader than ICD hyperkinetic disorder. The DAMP category is not in common use in Ireland, the UK, North America or Australia.

Epidemiology

In a meta-analysis of 97 studies, Willcutt (2012) found that 5.9–7.1% of children and adolescents and 5% of young adults have ADHD. While the combined sub-type of ADHD is more likely to be referred to clinical services, in community surveys the predominantly inattentive sub-type is most prevalent. Using stringent ICD-10 hyperkinetic disorder criteria demanding cross-situational stability of symptoms, a prevalence rate of 1% was obtained in a UK national epidemiological study (Meltzer et al., 2000). ADHD is more prevalent in boys than girls, and in pre-adolescents than in late adolescents (Thapar et al., 2013).

ADHD shows co-morbidity with neurodevelopmental, externalizing and internalizing disorders (Brown, 2009; Thapar et al., 2013). A significant minority of young people with ADHD have the following co-morbid neurodevelopmental disorders: intellectual disability, developmental language disorder, specific learning disorder, motor co-ordination disorder, Tourette's disorder, autism spectrum disorders, elimination problems and sleep disorders. The principal externalizing disorders that occur in conjunction with ADHD are oppositional defiant disorder, conduct disorder and substance use disorders. From Table 3.9 in Chapter 3 it may be seen that the co-morbidity rate for ADHD and conduct disorder is 23.3%. From Table 3.10 it may be seen that co-morbidity rates for the ASEBA aggression syndrome and the ASEBA attention problem syndrome (which are very similar to DSM conduct disorder and ADHD) is far higher in clinic populations (47%) than in community populations (28%). Anxiety disorders and depression are the main internalizing or emotional disorders that occur co-morbidly with ADHD. Co-morbidity for emotional disorders and ADHD is quite prevalent in community populations. From Table 3.9 in Chapter 3 it may be seen that the co-morbidity rate for ADHD and major depression is 10.5% and for anxiety disorders is 11.8%. From Table 3.10 it may be seen that co-morbidity rates for the ASEBA attention problems syndrome and the ASEBA anxious depressed syndrome (which is similar to DSM anxiety disorders) is far higher in clinic populations (43%) than in community populations (28%). Some children with ADHD have co-morbid bipolar disorder or disruptive mood dysregulation disorder (characterized by severe temper outbursts) (Pliszka, 2014).

About a third of children with ADHD have a good prognosis, about a third have a moderate prognosis and a third have a poor prognosis (Faraone et al., 2006; Hinshaw, 1994). For two-thirds of cases, the primary problems of inattention, impulsivity and hyperactivity persist into late adolescence, and for some of these the primary symptoms persist into adulthood. Roughly a third develop significant anti-social behaviour problems in adolescence including conduct disorder and substance abuse; for most of this sub-group, these problems persist into adulthood leading to criminality. Occupational adjustment problems and suicide attempts occur in a small but significant minority of cases.

Aetiological theories

Biological, neuropsychological and family systems theories have been developed to explain the aetiology and maintenance of symptomatology in ADHD.

Biological theories

Biological theories which focus on the role of genetic factors, structural brain abnormalities, neurotransmitter dysregulation, dietary factors and hypoarousal have guided much research on the aetiology of ADHD.

Genetic hypotheses. The genetic hypothesis proposes that ADHD symptomatology or a predisposition to hyperactivity is inherited by children who develop the condition. In support of this hypothesis, twin, adoption and family studies all show that rates of ADHD are higher in the biological relatives of children with ADHD than those without the disorder (Cortese, 2012; Thapar et al., 2013). Twin studies show that ADHD is 60–90% heritable, making it one of the most heritable psychological disorders. Environmental factors may account for 10–40% of the variance in ADHD symptomatology. The nature and extent of the contribution made by genetic and environmental factors varies from case to case. Extreme levels of the temperamental characteristic of over-activity, which is normally distributed within the population and polygenetically determined, probably interacts with environmental factors (either intrauterine or psychosocial) to give rise to the clinical syndrome of ADHD. It may be that in some cases, temperamentally over-active children sustain a pre-natal or early childhood neurological insult and go on to develop ADHD whereas others with an over-active temperament develop the syndrome following participation in ongoing, non-optimal parent–

child interactions. Meta-analyses of molecular genetic studies have found a reliable association between ADHD and a number of candidate genes (Thapar et al., 2013). These include DRD4, DRD5 and DAT1 which affect the efficiency of the dopaminergic neurotransmission system; and 5HTT and 5TR1B which affect the efficiency of the serotonergic neurotransmission system. SNAP-25, which affects the protein involved in neurotransmitter release, synaptic plasticity and axonal growth, has also been implicated in the genetic aetiology of ADHD. The search for these genes was informed by evidence for dysregulation of the systems these genes affect in the pathophysiology of ADHD. However, collectively these genes account for only about 1% of the phenotypic variance in ADHD. Current genetic studies use a range of methods to clarify the genetic basis for ADHD. For a small sub-group of children with ADHD, the syndrome appears to be caused by a genetic condition resulting in a generalized resistance to thyroid hormone (Hauser et al., 1993).

Organic deficit hypothesis. Early work on ADHD was premised on the hypothesis that the syndrome reflected an organic deficit, probably some form of minimal brain damage (Strauss & Lehtinen, 1947). In support of this hypothesis, a number of factors which might be associated with brain damage or dysfunction during the pre- or peri-natal periods and in early childhood have been found to be more prevalent among youngsters with ADHD than normal controls. These include pre-natal difficulties; maternal stress during pregnancy; maternal nicotine, alcohol, cocaine and anticonvulsant use during pregnancy; low foetal heart rate during delivery; small head circumference at birth; low birth weight; minor physical abnormalities; a high rate of diseases of infancy; lead poisoning; and early neurological insult or severe head injury (Barkley, 2014a; Nigg, 2013a; Taylor & Rogers, 2005; Taylor & Sonuga-Barke, 2008; Thapar et al., 2013). It is important to point out that these factors which may be associated with or contribute to the development of an organic deficit are not unique to ADHD and also occur in youngsters with other disorders. Therefore they probably interact with other factors in contributing to the development of ADHD.

Neuroimaging studies have shown that ADHD is associated with a range of structural and functional neuroanatomical abnormalities (Cortese, 2012; Nigg, 2013a, 2013b; Shaw, 2010). The best established of these is lobar volume loss of around 3–4%, and abnormalities of the frontostriatal circuitry which underpins executive function (Makris et al., 2009). The frontostriatal circuitry of children with ADHD is less efficient than that of normal children and this may account for their executive function deficits, such as difficulties with planning and following through on tasks (mentioned later in the section on psychological theories). Neuroimaging studies have also found abnormalities in the cerebellum which may underpin deficits in temporal information processing such as learning ‘what to expect when’, and in the parietal lobes which may affect the capacity to attend to one stimulus without being distracted by another (Cherkasova & Hechtman, 2009). Ongoing research continues to identify other neural mechanisms associated with ADHD. Not all cases of ADHD show all abnormalities. It is likely that the symptom patterns of different sub-groups of cases are associated with different neurophysiological abnormalities.

The genetic and organic deficit hypotheses underline the importance of viewing ADHD as a potentially lifelong neurodevelopmental disorder requiring a chronic care service model for people with ADHD and their families.

Neurotransmitter dysregulation hypothesis. In 1937 Charles Bradley reported that Benzedrine – a stimulant – had a calming effect on the behaviour of hyperactive children. Subsequent research showed that methylphenidate, which is also a stimulant, and atomoxetine, a non-stimulant selective noradrenalin reuptake inhibitor, had similar effects (Cortese, 2012; Taylor & Sonuga-Barke, 2008). Neurotransmitter dysregulation hypotheses have been proposed to explain the effects of these drugs on ADHD. These hypotheses attribute the symptoms of ADHD to abnormalities in neurotransmitter functioning at the synapses affected by medications which ameliorate the symptomatology of ADHD. Results of research in this field have converged on the view that a dysregulation of the dopaminergic system in the ventral tegmental areas of the brain and noradrenergic and adrenergic systems in the locus coeruleus may be present in ADHD (Solanto, 1998). Stimulants, including methylphenidate and amphetamines, ameliorate ADHD symptoms by blocking the reuptake of dopamine and noradrenaline. Amphetamines also promote the release of dopamine and noradrenaline. Atomoxetine increases extracellular dopamine and noradrenaline.

Controlled trials show that approximately 70% of children with ADHD respond to these medications (Paykina et al., 2007; Sibley et al., 2014). Medicated children with ADHD show a reduction in symptomatology and an improvement in both academic and social functioning, although positive effects dissipate when medication ceases, if psychological interventions to improve symptom control have not been provided concurrently with medication. One of the most remarkable findings of the Multimodal Treatment study of ADHD (MTA) – the largest-ever long-term controlled trial of stimulant medication for ADHD involving over 500 cases – is that stimulant medication ceased to have a therapeutic effect after 3 years (Swanson & Volkow, 2009). It also led to a reduction in height gain of about 2 cm and a reduction in weight gain of about 2 kg. Furthermore, it did not prevent adolescent substance misuse as expected. The MTA trial showed that tolerance to medication used to treat ADHD occurs and that it has negative side effects. These findings underline the importance of using medication to reduce ADHD symptoms to manageable levels for a time-limited period, while children and their parents engage in psychological interventions to develop skills to manage symptoms though psychological means.

Hypoarousal hypotheses. The hypoarousal hypothesis explains hyperactivity and inattention as a failure to be sufficiently aroused by signal stimuli to attend to them and regulate activity levels. Psychophysiological studies, in which arousal is assessed by EEG, skin conductance and heart rate recordings, indicate that ADHD children show reduced psychophysiological responsiveness to novel stimuli with signal value (Cortese, 2012; Rowe et al., 2005). The use of vivid stimuli in academic settings and highly salient and immediate reinforcers are implicated by the hypoarousal hypothesis. Reward systems and operant programmes conforming to these specifications have been found to have significant short-term effects (Hinshaw et al., 2007). EEG neurofeedback to increase cortical arousal has been shown in some trials to improve ADHD symptoms, although the efficacy of this treatment is still controversial (Arns & Strehl, 2013; Sonuga-Barke et al., 2013).

Food allergy hypotheses. The food allergy hypothesis attributes the symptoms of ADHD to children's reaction to certain features of their daily diet. Originally Feingold (1975) argued that artificial food additives such as colorants accounted for a substantial proportion of ADHD symptomatology. However, early controlled trials of additive-free diets did not support his position. Egger et al. (1985) refined Feingold's original allergy theory and argued that particular children with ADHD may have unique allergy profiles, and if their diet is modified so as to exclude the precise substances to which they are allergic then their activity and attention problems may improve. Meta-analyses of controlled trials have shown that food colour exclusion diets have a beneficial effects on the behaviour of children with ADHD, especially those with food allergies (Sonuga-Barke et al., 2013; Stevenson et al., 2014). There is also meta-analytic evidence to show that free fatty acid supplementation diets have beneficial effects on ADHD symptoms, although the effects are small (Sonuga-Barke et al., 2013).

Neuropsychological approaches

A number of theories which highlight the importance of deficits in specific neuropsychological processes as the central factor underlying ADHD symptomatology have been proposed. Four of these will be mentioned here. All attempt to show how the overall syndrome of inattention, over-activity and impulsivity may be accounted for by a single underlying core deficit, be it one of the three core symptoms of ADHD or other neuropsychological process.

Inattention hypothesis. The inattention hypothesis proposes that problems with sustaining attention on a single task and screening out other distracting stimuli is the core difficulty that underpins the other symptoms of impulsivity and over-activity in ADHD (e.g. Douglas, 1983). That is, youngsters with ADHD at the outset of a task requiring attention will perform at a level equivalent to normal children, but over time will show more errors which are directly attributable to the inability to sustain attention. This problem with sustaining attention leads them to change the focus of their attention frequently and is manifested at a behavioural level as excessive impulsivity and over-activity. On certain laboratory tasks children with ADHD show a gradual deterioration in sustained attention, as predicted by the inattention hypothesis. They also show poorer performance on working memory tasks, longer and more variable reaction times, and slower processing speed on naming tasks compared with normal controls (Willcutt, 2014). However, contrary to the inattention hypothesis, on other tasks they show immediate selective attention like children without ADHD and also display over-activity while asleep (Barkley, 2014a). These findings suggest that a deficit in the capacity for sustained attention alone cannot fully account for the ADHD syndrome.

Hyperactivity hypothesis. The hyperactivity hypothesis argues that a problem with inhibiting motor activity is the core deficit that underpins the ADHD syndrome and can account for inattention and impulsivity (e.g. Schachar, 1991). There is a large body of evidence which shows that hyperactivity is unique as a symptom to children with ADHD compared to children with other psychological problems and that hyperactivity as a construct correlates with many academic indices of attentional problems (Barkley, 2014a).

Impulsivity hypothesis. The impulsivity hypothesis proposes that a core problem in inhibiting cognitive and behavioural responses to specific stimuli leads to poor performance on tasks apparently requiring good attentional abilities and also to tasks requiring careful regulation of behaviour. Thus the central problem in ADHD according to this hypothesis is with cognitive and behavioural impulsivity (e.g. Nigg, 2001). According to this theory, with academic tasks requiring high levels of sustained attention, children with ADHD have problems using systematic cognitive problem-solving strategies because they are cognitively impulsive. Also, in both academic and social situations, children with ADHD engage in careless work practices in school and engage in socially inappropriate behaviour with peers, parents and teachers because they are behaviourally impulsive. There is some evidence to show that while children with ADHD may know and understand problem-solving skills and social skills, they fail to use them appropriately in academic and social situations (Barkley, 2014a).

The delay aversion theory is a variant of the impulsivity hypothesis. It proposes that individuals with ADHD find the experience of delay very aversive and frustrating. This leads them to make impulsive choices that minimize delay, even in situations where the alternative options would lead to a larger reward after a longer delay (Sonuga-Barke et al., 1992). Meta-analyses of laboratory studies show that, compared with normal controls, individuals with ADHD are more likely to select a small immediate reward rather than a larger delayed reward (Willcutt, 2014).

Executive function and self-regulation hypothesis. Russell Barkley (2005, 2014b) argues that the symptoms of ADHD (impulsivity, over-activity and inattention) reflect deficits in six executive functions which are critical for adaptation. These executive functions are (1) self-awareness, (2) behavioural inhibition, (3) non-verbal working memory, (4) verbal working memory, (5) self-regulation of affect, arousal and motivation, and (6) self-directed play. Deficits in self-awareness compromise the capacity for self-regulation. Children with deficits in behavioural inhibition cannot delay immediate gratification so as to reap better rewards later. With poor verbal and non-verbal working memory, ADHD children cannot hold a picture of events in the mind or obey a set of self-directed instructions and so delay gratification or sustain planned sequences of goal-directed behaviour. With poor self-regulation of affect, arousal and motivation, ADHD children have difficulty preventing strong emotional experiences and motives from interfering with planned goal-directed behaviour. With poor self-directed play, ADHD children have difficulty developing, rehearsing and implementing creative plans to achieve novel goals. Executive function deficits, according to Barkley, reflect failures to internalize and privatize functions which in early development were external features of the child's interactions with caregivers. In normal development the emergence of executive functions reflects a shift in the source of control of behaviour from external events to mental representations of events; from control by others to control by the self; from immediate to delayed gratification; from a focus on the present to the future; and from solitary means for achieving goals to the use of social and cultural means for goal attainment. The six executive functions in this theory constitute a set of 'mind tools' which facilitate adaptive functioning in anticipation of the future. In particular they subserve vicarious learning and the capacity to both compete and co-operate with others. Deficits in these executive functions which characterize individuals with ADHD impair their adaptive capacity in these areas. This complex and elaborate executive function hypothesis has to some degree supplanted earlier simpler psychological theories and is partially supported by a growing body of empirical evidence (Barkley, 2003, 2005, 2014b; Nigg, 2013a; Willcutt, 2014). However, not all children with ADHD have deficits in executive functions (Taylor & Sonuga-Barke, 2008).

To compensate for deficits in attention, self-regulation of motor activity, impulsivity and executive function, various skills training programmes have been developed, largely within the cognitive-behavioural tradition. Meta-analytic results show that cognitive remediation programmes which aim to train working memory or other executive functions have no clinical impact on the symptoms of ADHD (Melby-Lervåg & Hulme, 2013; Rapport et al., 2013). Individual or group-based cognitive-behavioural programmes, spanning 10–20 weekly sessions, to help young people develop self-regulation and social skills have negligible effects (Hinshaw et al., 2007). However, intensive summer camp–based behavioural programmes involving 200–400 hours of training have significant effects on the development of academic and social skills (Pelham et al., 2010).

There is a growing consensus within the field that single-factor theories are unlikely to be able to explain the complex and heterogeneous population of youngsters who qualify for a diagnosis of ADHD. It is probable that a variety of biological and psychosocial factors interact in complex ways to give rise to the syndrome and that problems with a number of intrapsychic processes, particularly those involved in regulating both cognitive and motor responses, underpin symptomatology. The symptomatology is probably partially maintained and exacerbated by problematic relationships within the family, the peer group and the school.

Systems theory

Family systems theories have focused largely on the role of the family system or the wider social context in the aetiology and maintenance of ADHD. Parental psychological problems such as depression, aggression or alcohol and substance misuse; exposure to severe marital discord or domestic violence; extreme abuse and neglect in infancy, and coercive parent–child interactions in childhood and adolescence have all been found to have associations with ADHD (Deault, 2010; Johnston & Mash, 2001; Taylor & Sonuga-Barke, 2008). With respect to the wider social system, the following factors have been found to be associated with ADHD: institutional upbringing, low socio-economic status, peer relationship problems and relationship problems with school staff (Barkley, 2014a; Taylor & Sonuga-Barke, 2008). A problem with much of the research on psychosocial factors in the aetiology and maintenance of ADHD is the fact that in many cases co-morbid conduct disorders are present, and the risk factors that are identified, which bear a close resemblance to those identified for conduct disorders, may primarily be associated with the aetiology of conduct problems rather than ADHD. A second difficulty is untangling the causal chain and establishing which family and relationship difficulties precede the development of ADHD and are predisposing factors, and distinguishing these from relationship difficulties that evolve in response to ADHD and possibly maintain or exacerbate the condition. Meta-analytic results show that ADHD, especially in boys with co-morbid conduct problems, leads to significant stress for parents, particularly if parents are already depressed (Theule et al., 2013). Results of longitudinal studies and family intervention studies suggest that chronic exposure to extremely adverse institutional or family environments early in life may heighten the risk of developing ADHD, and for children with predominantly biologically determined ADHD, improved parenting practices can affect the course of the disorder (Taylor & Sonuga-Barke, 2008).

Family-based interventions and multi-systemic intervention programmes involving the child's wider social network have evolved from family systems theories of ADHD. These programmes focus on improving parenting skills and enhancing the child's relationships with members of the family and the wider network. Such programmes have been shown to have small positive short-term effects on both symptomatology and social adjustment (Anastopoulos et al., 2005; Hinshaw et al., 2007; Sonuga-Barke et al., 2013; Young & Amarasinghe, 2010).

Assessment

The management of cases where inattention, over-activity and impulsivity are central concerns should begin with a thorough assessment. In addition to the routine areas for assessment set out in Chapter 4, symptoms listed in Table 11.1 and the clinical features listed in

Table 11.2 should be considered. The importance of obtaining reliable, valid and comparable accounts of the child's behaviour in home and school contexts cannot be over-emphasized. In addition to instruments such as the ASEBA mentioned in Chapter 4, scales listed in Table 11.3, especially the Conners Rating Scales, are particularly useful for assessing ADHD. Children scoring above the clinical cut-off score on ADHD scales of instruments listed in Table 11.3 and who meet the diagnostic criteria listed in Table 11.1 may be diagnosed as having ADHD. Functional analysis may be used to identify antecedents and consequences of specific target problem behaviours which trigger and reinforce them and inform behavioural interventions.

A thorough psychometric assessment of intelligence, attainments and language following guidelines given in Chapter 8 is also essential in the assessment of children with ADHD, since most children with ADHD have learning problems and many have co-morbid neurodevelopmental disorders.

Ideally, psychological assessment of children with ADHD should be conducted as one element of a multi-disciplinary assessment. Where such multi-disciplinary assessments are being co-ordinated by a clinical psychologist, referral to paediatrics and speech and language therapy are particularly important. Referral for paediatric medical assessment should be routinely made to evaluate the impact of pre- and peri-natal factors, neurological status, minor physical anomalies and food allergies. Referral to speech and language therapy may be made to assess developmental language delay.

Predisposing, maintaining and protective factors for syndromes involving attentional problems, impulsivity and hyperactivity deserving consideration in the assessment of cases of ADHD have been summarized in Figure 11.1 (Barkley, 2014a; Daly et al., 2009; Nigg, 2013a; Taylor & Sonuga-Barke, 2008; Wolraich & DuPaul, 2010). It is noteworthy that unlike many other problems and conditions covered in this text, specific precipitating factors rarely occur. Rather, ADHD evolves gradually over the early years or is present from birth. However, often lifecycle transitions, such as entry to pre-school, primary or secondary school precipitate referral for psychological assessment.

Table 11.3 Theories of ADHD and treatment implications

Theory	*Theoretical principles*	*Principles treatment*
	ADHD symptomatology or temperamental over-activity which	Treatment shoul be based on chronic care coping mode help the chil adjust to gen vulnerability. The child an

Biological theories	**Genetic hypothesis**	interacts with environmental factors to produce ADHD symptoms are inherited.	family shoul offered episo of brief inten intervention within the context of a long-term relationship the treatmen service.
	Organic deficit theory	ADHD is due to a structural or functional neurological deficits in the pre-frontal cortex and related subcortical structures which subserve executive functioning.	Treatment shou be based on chronic care coping mode help the chil cope with organic defic
	Neurotransmitter dysregulation hypothesis	ADHD is due to a dysregulation of dopaminergic system which subserves executive functioning and noradrenergic system which inhibits over-activity in the pre-frontal cortex and related subcortical structures.	Psychostimulan may be used rectify dysregulatio the dopamin system. Noradrenerg agonists may used to recti dysregulatio the noradrenergi system.
		Children with ADHD are psychophysiologically less responsive to signal stimuli and this	Neurofeedback should be us to help incre arousal level. Training in academic an social skills should inclu the use of vi arousing

	Under-arousal hypothesis	underpins their attentional problems, in that they require a great deal of stimulation to stay on-task. Also their hyperactivity may reflect stimulus-seeking behaviour.	stimulus materials an contingency management should involv the use of hig salient reinforcers delivered immediately following appropriate responses.
	Allergy hypothesis	ADHD is a cognitive and behavioural response to food intolerance.	Specific foods t which the chi is allergic, especially artificial foo colours, shou be identified eliminated fr the child's die
Neuropsychological theories	**Inattention hypothesis**	A difficulty with sustaining attention underpins all of the features of ADHD including over-activity and impulsivity.	Treatment shou help the chil compensate inattention.
	Over-activity hypothesis	A difficulty in regulating the rate of motor activity underpins all of the features of ADHD including impulsivity and inattention.	Treatment shou help the chil regulate ove activity.
	Impulsivity	A difficulty in regulating the timing of responses to stimuli underpins all of the features of ADHD including over-	Treatment shou help the chil

	hypothesis	activity and inattention. The central difficulty in ADHD is an aversion to the experience of delay.	regulate impulsivity.
	Executive function hypothesis	ADHD arises from a core deficit in behavioural inhibition associated with and reinforced by secondary deficits in (1) non-verbal working memory, (2) verbal working memory, (3) self-regulation of affect, arousal and motivation, and (4) verbal and behavioural creativity and fluency.	Cognitive traini should help t child compensate f executive function defi
Systems theory		Extreme deprivation or abuse, extreme family conflict, parental psychological problems and social disadvantage contribute to the development and maintenance of ADHD.	Family and scho interventions should aim tc alter conflictu patterns of interaction w family memb peers and sch staff which maintain the academic anc social adjustment difficulties.

Predisposing factors. Both personal and contextual predisposing factors may be present in ADHD. Among the more important personal biological predisposing factors are the following: genetic vulnerability; pre- and peri-natal difficulties; maternal smoking, alcohol and drug use during pregnancy; high maternal stress during pregnancy; low foetal heart rate during delivery; anoxia at birth; low birth weight; small head circumference at birth; minor physical abnormalities; a high rate of diseases of infancy; lead poisoning; early neurological insult; and food allergies. Children with difficult temperaments are also predisposed to developing ADHD. Parental psychopathology, intrusive caregiver behaviour, exposure to marital distress or domestic violence, family disorganization, social disadvantage, extreme child abuse or neglect, and institutional upbringing with extreme deprivation are the principal contextual predisposing factors which may be considered in the assessment of ADHD. In some instances, clinical interviewing reveals that children with many personal biological predisposing factors develop mild ADHD which is exacerbated through exposure to contextual psychosocial predisposing factors, most of which are chronic life stresses.

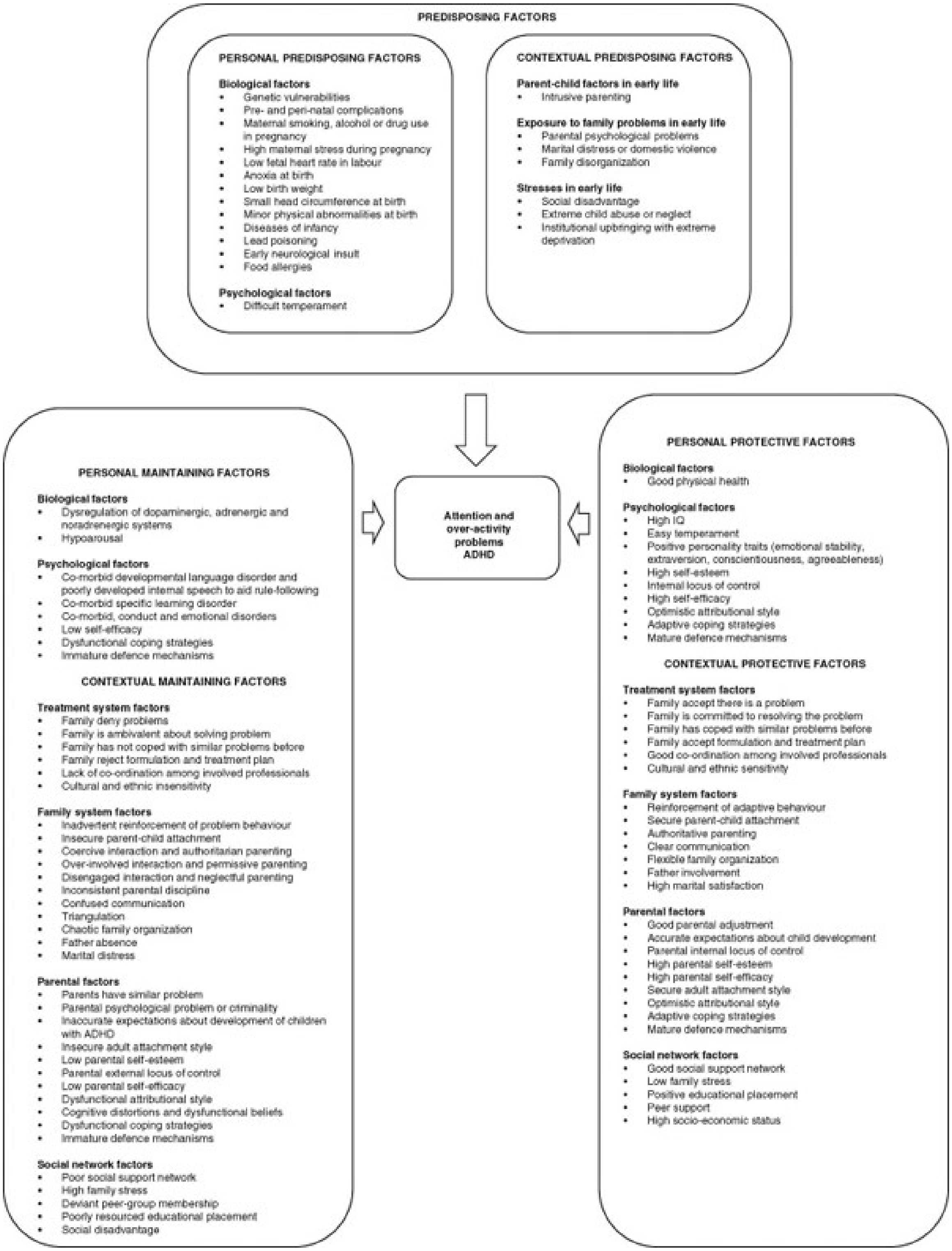


Figure 11.1 Factors to consider in the assessment of ADHD

Maintaining factors. Both personal and contextual psychosocial factors may maintain ADHD. At a personal level, poorly developed internal speech and an associated developmental language disorder may maintain inattention, over-activity and impulsivity. Co-morbid emotional and conduct disorders and specific learning disorders may also maintain the symptoms of ADHD by diminishing the personal resources that the child has to consciously control attention, activity and impulsivity levels. Low task-related self-efficacy, immature defences and poor coping strategies may also maintain the condition. At a biological level hypoarousal may maintain ADHD by making it difficult for youngsters to learn in situations where extremely salient stimuli and reinforcers are not available. Dysregulation of dopaminergic, adrenergic and noradrenergic neurotransmission systems may also maintain ADHD.

At a contextual level, conflictual, coercive, negligent or intrusive relationships with parents may maintain ADHD, particularly if coupled with inconsistent parental discipline and inadvertent reinforcement of problem behaviours. ADHD is more likely to persist where children are triangulated in families characterized by chaotic organization, confused communication or marital discord, or where fathers play a peripheral role. Such patterns of parenting and family organization may be associated with parental psychological problems such as insecure internal working models for relationships, low self-esteem, low self-efficacy, external locus of control, dysfunctional attributional style, cognitive distortions, immature defences and poor coping strategies. Parents may also become involved in problem-maintaining interactions with their children if they have inaccurate knowledge about their child's condition and the developmental problems that go with ADHD.

ADHD symptomatology may be maintained by high levels of stress, limited support and social disadvantage within the family's wider social system, since these features may deplete parents' and children's personal resources for dealing constructively with ADHD symptomatology. For children whose educational placements are poorly resourced, with staff untrained to deal with ADHD and poor staff–student ratios, children may become involved in coercive patterns of interaction with teachers and peers that maintain ADHD symptomatology. When youngsters with ADHD are members of deviant peer groups, their conduct problems and impulsivity may be maintained by the deviant peer group through modelling deviant behaviour and reinforcing it.

Within the treatment system, a lack of co-ordination among involved professionals including teachers, psychologists, psychiatrists, paediatricians, speech therapists and so forth may maintain ADHD-related problems. Effective treatment for ADHD must be multi-modal and include pharmacological, psychological, pedagogical and other components. However, if children and parents view these components as competing rather than complementary solutions to ADHD, then the child's difficulties may deteriorate as a result of the family's interaction with an unco-ordinated group of professionals. Where co-operation problems between families and treatment teams develop, and families deny the existence of the problem, the validity of the formulation or the appropriateness of the treatment programme, then the child's difficulties may persist. Treatment systems that are not sensitive to the cultural and ethnic beliefs and values of the youngster's family system may maintain ADHD-related difficulties by inhibiting engagement or promoting dropout from treatment and preventing the development of a good working alliance between the treatment team, the youngster and his or her family. Parents' lack of experience in dealing with similar problems in the past is a further factor that may compromise their capacity to work co-operatively with the treatment team and so may contribute to the maintenance of the child's problems.

Protective factors. The probability that a treatment programme for ADHD will be effective is influenced by a variety of personal and contextual protective factors. It is important that these be assessed and included in the later formulation, since it is protective factors that usually serve as the foundation for therapeutic change. Good health, a high IQ, an easy temperament, positive personality traits (including emotional stability, extraversion, conscientiousness and agreeableness), high self-esteem, an internal locus of control, high self-efficacy and an optimistic attributional style are all important personal protective factors. Other important personal protective factors include mature defence mechanisms and functional coping strategies, particularly good problem-solving skills and a capacity to make and maintain friendships.

Within the family, reinforcement of adaptive behaviour, secure parent–child attachment and authoritative parenting are central protective factors, particularly if they occur within the context of a flexible family structure in which there is clear communication and high marital satisfaction and where both parents share the day-to-day tasks of childcare.

Good parental adjustment is also a protective factor. Where parents have an internal locus of control, high self-efficacy, high self-esteem, internal working models for secure attachments, an optimistic attributional style, mature defences and functional coping strategies, they are better resourced to manage the symptoms of ADHD constructively. Of course, accurate knowledge about ADHD and the implications of ADHD for child development is also a protective factor.

Within the broader social network, high levels of support, low levels of stress and membership of a high socio-economic group are all protective factors for children with ADHD. Where families are embedded in social networks that provide a high level of support and place few stressful demands on family members, then it is less likely that parents' and children's resources for dealing with ADHD will become depleted. A well-resourced educational placement may also be viewed as a protective factor. Educational placements where teachers have a clear understanding of ADHD and can provide instructional programmes tailored to the child's educational requirements protect the child from academic and vocational problems that arise in poorly resourced educational placements.

Within the treatment system, co-operative working relationships between the treatment team and the family and good co-ordination of multi-professional input are protective factors. Treatment systems that are sensitive to the cultural and ethnic beliefs and values of the youngster's family are more likely to help families engage with and remain in treatment, and foster the development of a good working alliance. Families are more likely to benefit from treatment when they accept the formulation of the problem given by the treatment team and are committed to working with the team to resolve it. Where families have successfully faced similar problems before, then they are more likely to benefit from treatment, and in this sense previous experience with similar problems is a protective factor.

Formulation

Salient points from assessment interviews with the parents, the child and school staff, and key results from behaviour checklists, psychometric evaluations, paediatric medical evaluation, speech and language assessment and other multi-disciplinary inputs should be integrated into a case formulation. The formulation should outline the principal clinical features shown by the child, predisposing, maintaining and protective factors. An example of a formulation of a case of ADHD is given in the penultimate paragraph of the case study set out in Box 11.1. A management and treatment plan based on the formulation should be drawn up which attempts, in particular, to address maintaining factors.

Treatment

An evidence-based multi-modal treatment programme for children with ADHD includes the following elements (American Academy of Child and Adolescent Psychiatry, 2007a; Barkley, 2014a; Charach et al., 2013; Daly et al., 2009; Hamblin & Gross, 2012; Hinshaw et al., 2007; NICE, 2013c; Pelham & Fabiano, 2008; Seixas et al., 2012; Sibley et al., 2014; SIGN, 2009; Sonuga-Barke et al., 2013; Taylor & Sonuga-Barke, 2008; Wolraich & DuPaul, 2010; Young & Amarasinghe, 2010):

- psychoeducation
- medication
- family intervention to promote rule-following at home
- school intervention focusing on the management of school-based learning difficulties and conduct problems
- child-focused social skills training
- dietary assessment and intervention.

Psychoeducation

Parents require clear authoritative information about the syndrome of inattention, hyperactivity and impulsivity. They need to be informed that the symptoms listed in Table 11.1 reflect the current consensus among clinicians and scientists working in this field. About

6–7% of children meet the criteria for ADHD and in the UK about 1% meet the more stringent criteria for hyperkinetic disorder, which is a severe form of ADHD.

The syndrome has had a variety of names over the years including hyperactivity, attention deficit disorder, minimal brain dysfunction and minimal brain damage (MBD).

There are many misconceptions about the aetiology and treatment of the syndrome of inattention, hyperactivity and impulsivity. Genetic factors play a central role in causing ADHD. ADHD probably arises from a genetic predisposition to having an over-active temperament interacting with pre- and peri-natal and early life factors of the type listed in Figure 11.1. While pre-existing family relationship problems do little to alleviate ADHD, they are probably not the primary cause. Because many parents blame themselves for the condition it is valuable to point out that in most cases the relationship problems that occur are a response to the syndrome rather than the cause of it.

It may also be pointed out that sympathetic management of the condition with stimulant medication, home- and school-based behavioural programmes, appropriate remedial tuition and counselling as required can help the youngster cope with the syndrome without developing secondary emotional and conduct problems. In a small group of cases food allergies may play a role, and dietary management may be appropriate. Families that have the strength and determination to support their children in this way increase the chances of their child having a positive long-term outcome.

Stimulant medication has an immediate effect on the symptoms of ADHD. However, symptoms return once children stop taking medication. Also, methylphenidate adversely affects growth. For these reasons, multi-modal programs in which the dosage of medication is kept to a minimum are arguably preferable to long-term use of high doses of methylphenidate.

With respect to outcome, it should be mentioned that about a third of children learn to cope well with the syndrome and develop strategies for focusing attention and restraining their impulses to be over-active. This improvement is very gradual and occurs during adolescence. About a third, however, never achieve this type of control. These youngsters are usually those who develop secondary problems with aggression and anti-social behaviour. The remaining third show some improvement towards the end of adolescence, usually in the area of reduced levels of over-activity.

Parents and children may be provided with reading materials written specifically for a lay audience on ADHD. A number of such texts are listed at the end of this chapter. Also information on websites listed at the end of the chapter may be given.

For families to be able to cope with ADHD throughout the child's development, membership in a support group for parents with children who have similar problems is advised. Provision of information on local support groups or establishing such groups where none exists is part of the clinical psychologist's psychoeducational remit.

Parents also require information on the rights of their child to appropriate educational support and guidance on how best to access these resources.

Parents may also be offered information on childproofing the home to make it safer for everyone to live in. Depending upon the age of the child, this may include getting a stair gate; a fire guard; child locks for cupboards, cabinets and drawers which contain knives, lighters and other dangerous items; arranging electrical items so as to minimize the chances of electrocution and so forth. With teenagers, the principal safety concern may be with managing the youngster's risk-taking activities such as smoking, alcohol and drug use; the wish to drive cars and motorbikes; and the desires to engage in sports that entail high safety risks. The main advice that can be given is to listen carefully to the teenager's wishes but set clear limits that take account of the teenager's limited impulse-control skills. These tend to develop much more slowly in youngsters with ADHD and so they cannot be permitted to engage in risky activities, like learning to drive, until they show clear evidence of a sufficient degree of impulse control.

Medication

Medication should be offered as part of a multi-modal intervention programme involving child, family and school-based psychosocial interventions (Hinshaw et al., 2007; Seixas et al., 2012). Medication – usually with stimulants such as methylphenidate – may be arranged in conjunction with a family physician, a paediatrician or child psychiatrist.

Stimulant treatment is contraindicated when children are under 4 years of age and where there is a history or high risk of cardiovascular disease, psychosis or tic disorders, notably Tourette's disorder. Stimulant treatment is less likely to be effective when children have a co-morbid anxiety disorder. Where parents or children have strong beliefs about the inappropriateness of using medication to manage children's attentional and impulsivity problems, adherence to a stimulant treatment regime will probably be poor even if the child shows a significant initial treatment response. Stimulant treatment may lead to secondary difficulties in families where a parent or sibling engages in drug misuse. In such cases, the drug user may use stimulants as a recreational drug. The financial costs of stimulant medication and the time and energy required by the parents, the school and the child to regularly adhere to the medication regime should be taken into account when considering stimulant treatment.

The main stimulants used are methylphenidate (Ritalin) and dextroamphetamine (Dexedrine). Because the half-life of methylphenidate and dextroamphetamine is about 3.5 hours, medication is usually prescribed as a split dose to be taken in the morning and at noon. A long-acting methylphenidate preparation (Concerta) and a slow-release preparation of amphetamines (Adderall) have been developed. These need only be taken once per day.

Dosage is usually decided first on the basis of body weight and subsequently on symptomatic response to a trial of 4–8 weeks. Details of dosages for psychostimulants and other medications used for ADHD are given in Power and Greenhill (2013).

Response to treatment may be monitored using the short scales such as the ADHD-IV rating scale listed in Table 11.4. In monitoring treatment response, it is important to keep in mind that moderate dosages lead to maximum improvements in attention problems and high doses lead to maximum improvement in social and behavioural functioning. In clinical practice the ideal is to find a dosage that optimizes both academic and social functioning.

Table 11.4 Psychometric instruments that may be used as an adjunct to clinical interviews in the assessment of ADHD

Construct	*Instrument*	*Publication*	*Comments*
ADHD symptomatology	Conners Rating Scales (Third Edition)	Conners, C. (2008). *Conners Third Edition* (Conners-3). Toronto: Multihealth Systems.	Conners's parent, teacher and self-report rating scales are available in short versions with about 40 items and long versions with about 100 items. They yield scores for DSM-5 ADHD, oppositional defiant disorder and conduct disorder as well as a range of ADHD and conduct problem scales. There are normative data for children 6–18 years of age for parent and teacher versions and 8–18 years for the self-report version. All scales are hand and computer scoreable.
	Attention Deficit Hyperactivity Disorder Test – Second Edition	Gilliam, J. (2014). *Attention Deficit Hyperactivity Disorder Test – Second Edition.* Austin, TX: Pro-Ed.	This 33-item instrument is based on DSM-5 criteria and yields scores for hyperactivity/impulsivity, inattention and ADHD. It was normed on over 1,500 cases of ADHD in the US in 2013.
		DuPaul, G., Power, T., Anastopoulos,	Parent and teacher versions of this scale contain 19 DSM criteria items and

	ADHD-IV Rating Scale	A., & Reid, R. (1998). *ADHD-IV Rating Scale.* New York: Guilford.	yield scores for hyperactivity/impulsivity, inattention and ADHD. Normative data are available for children aged 5–17.
	Attention Deficit Disorder Evaluation Scales – Third Edition	McCarney, S. (2004). *Attention Deficit Disorder Evaluation Scales – Third Edition, home and school versions technical manual.* Columbia, MO: Hawthorne Educational Services.	There is a 46-item home version and 60-item school version of this scale which yields scores for hyperactivity/impulsivity, inattention and ADHD. It is normed on children aged 4–18.
Situations in which ADHD symptoms occur	Home Situations Questionnaire (HSQ)	Barkley, R. (2013). *Defiant children: A Clinician's manual for parent training* (3rd ed.). New York: Guilford Press.	On 16 items parents indicate whether their child has behaviour problems in home and community situations and the severity of such problems if they exist. The HSQ gives a score for the number of situations in which problems occur and the overall severity of such problems.
	School	Barkley, R. (2013). *Defiant children: A Clinician's*	On 12 items parents indicate whether their child has behaviour problems in school situations and the severity of such problems

	Situations Questionnaire (SSQ)	*manual for parent training* (3rd ed.). New York: Guilford Press.	if they exist. The SSQ gives a score for the number of situations in which problems occur and the overall severity of such problems.

Common side effects of psychostimulants include loss of appetite, sleep disruption, headaches and stomach aches. Although far less common, motor and vocal tics are the most worrying side effects of stimulant medication. Stimulants may speed the emergence of complex tics associated with Tourette's disorder, which has a high co-morbidity with ADHD (see Chapter 13). A reduction in medication may control these various side effects. Height and weight should be plotted on growth charts during stimulant treatment, and if growth rate declines a 6-week medication holiday should be taken.

Once medication is stopped the benefits of psychostimulant treatment ceases. In the long term, children probably do not develop a tolerance to psychostimulants. They also do not show a complete loss of personal responsibility for their behaviour and make external attributions (to psychostimulant medication) for all treatment gains.

About 70% of children with ADHD respond to psychostimulants (Hinshaw et al., 2007; Paykina et al., 2007). The effects of stimulants are not specific to children with ADHD. Normal children and children with other diagnoses such as conduct disorder also show a reduction in activity level in response to psychostimulants. However, the best response has been found to be from children who show the most severe levels of over-activity and inattention and the absence of anxiety. Neurodevelopmental delays and family adversity are unrelated to treatment response. Where children do not respond to methylphenidate, or where they have co-morbid tic disorders or are at risk of stimulant misuse, atomoxetine is an alternative medication (NICE, 2013c).

Family intervention with children

Different types of family intervention programmes are required for pre-adolescent children and adolescents. For pre-adolescent children, a behavioural parent training programme described in Barkley's (2013) treatment manual has been found to be effective for approximately two-thirds of pre-adolescents with ADHD (Anastopoulos & Farley, 2003). The programme consists of nine weekly sessions and so spans about 2 to 3 months.

The first session covers much of the material mentioned in the earlier section on psychoeducation. In the second session, a four-factor model of parent–child conflict is described and behaviour management principles are reviewed. The child's behaviour is explained as being influenced by (1) intrinsic characteristics of the child such as temperament, (2) intrinsic characteristics of the parent, (3) overall family stresses and (4) the immediate consequences of the child's behaviour. While the first three are important, the greatest influences on what children do in a given situation are their expectations of the consequences of their actions. Thus, the main things that the parent can do to help their child develop pro-social behaviour, according to this simple analysis, is to reward appropriate pro-social behaviour and make rewards unavailable for anti-social inappropriate behaviour. This provides a rationale for the reinforcement skills learned in the next session.

It also follows from this analysis that the parents' behaviour is governed by the same four sets of factors. That is, the parents' response to the child is influenced by the parents' characteristics (particularly their expectations and stamina managing difficult behaviour), the child's characteristics (notably their over-active temperamental style), family stresses (which may preoccupy parents and erode their patience for dealing with difficult child behaviour) and the consequences of the adults' behaviour. So, just as parents shape and influence the child's behaviour, so also the child shapes and influences the adults' behaviour, by for example, stopping screaming and hitting once the parents cease to place demands on the child for appropriate behaviour.

As a homework assignment, parents are invited to complete an inventory of their own characteristics, the child's characteristics and current family stresses.

In the third session parents are trained to positively attend to socially appropriate behaviour and to ignore inappropriate behaviour during episodes of special playtime. Special playtime is similar to supportive play as described in Table 4.4 in Chapter 4. During special playtime, which should occur for a regular period of 15–20 minutes each day, the child selects an activity. The parent must avoid commands and questions when speaking with the child. All approximations to appropriate behaviour should be responded to with social reinforcement. The parent does this by describing or acknowledging the child's action and praising or appreciating it. Inappropriate activities are ignored. It is pointed out that as this style of interacting with the child evolves, the child will come to value parent–child interaction, and so much briefer and less punitive strategies may later be used to discourage inappropriate behaviour.

In the fourth session, parents are trained to positively attend to socially appropriate behaviour and ignore inappropriate behaviour in situations where the child is playing independently. The main skill here is for parents to continually monitor the child's behaviour outside of special playtime, looking for instances of pro-social behaviour and offering social reinforcement wherever possible. That is, they try to 'catch the child being good' and reinforce good behaviour. Thus the quality of parent–child interaction within and outside of special playtime improves along with the probability that the child will engage in socially appropriate behaviour. There is also discussion of how to give commands effectively. Commands should only be given when the parent intends to follow through on them. They should be clear and simple and given in a tone that conveys an expectation that they will be followed; the parent should make eye contact with the child when giving the command. Qualifying information such as 'you were very good this morning when you did what I asked' should be omitted. It is a distraction for the child. It is also distracting if commands are phrased as questions rather than instructions. For example, 'Please put your toys in the toy box' is better than 'Would you like to put your toys away?' Other competing distractions (such as the TV) should be eliminated before commands are given. When a command has been given, it is important to ask the child to repeat the command to check that it has been heard and understood accurately. When training a child to follow commands, it is best to begin with instructions that he or she has shown some compliance with in the past rather than those which have never been heeded. It's also better to select a time when the child is not exhausted, ill or otherwise distracted and can focus full concentration on responding to the command. All approximations to responding to a command appropriately should be socially reinforced. At the end of this session parents are given a homework assignment of practising using positive reinforcement for independent play and compliance with commands given according to the guidelines given in the session.

In the fifth session, parents are trained in how to set up a reward system at home using points or tokens. These reward systems are similar to those described in Table 4.5 in Chapter 4. Parents are invited to draw up a list of daily, weekly and long-range treats, privileges and rewards that the child might like (a reinforcement menu) and a list of jobs or chores that must be done on a daily or weekly basis. Points that may be earned for completing jobs are noted beside each job on the list. Points required to buy an item off the reinforcement menu are put beside each item on the menu. With children 8 years and under plastic tokens from a board game or poker chips may be used as currency. With older children ticks may be placed on a card or notebook that the child carries at all times. With children who have ADHD it is important that the tokens or points be delivered immediately following the execution of a pro-social target behaviour, that extra tokens be given when the child shows extra effort or better performance in completing a target task or behaviour, and that the reward menu from which items can be bought with tokens contains highly valued items. For this reason, parents may wish to modify their reinforcement menus in consultation with their children after the session.

By this stage in the treatment programme, 6–8 weeks will have elapsed, during which the quality of parent–child interaction will have improved significantly and be marked by many positive exchanges and a high rate of positive social reinforcement. Against this backdrop, in the sixth session parents are instructed in how to use response cost or the removal of tokens for punishing specifically targeted minor rule violations and non-compliance with commands. Thus, for non-compliance, children may lose the exact number of points that they would have gained if they had complied with a parental instruction.

The use of time-out from reinforcement for anti-social behaviour or aggression is also explained in detail. Time-out follows similar principles to those set out in Table 4.6 in Chapter 4. Parents are asked to select one or two particularly troublesome target anti-social behaviours to which time-out will be applied. Then the principles of the procedure are outlined. Time-out should be brief (the number of minutes of their age in years) and dispassionate and preceded by two warnings. During time-out the child sits on a chair in a position away from the hub of family activity, but easy to supervise such as the corner of the kitchen. At the end of the specified brief period, provided tantrums or anti-social behaviour has ceased, the child should be given the command with which they did not comply that led to them going into time-out. If they comply, they receive no tokens but the parent should look for an opportunity as soon as possible to reinforce them for appropriate behaviour. If they do not comply following two warnings, they are returned to the time-out chair and the cycle is repeated until they comply. As soon as possible after compliance, they are rewarded for engaging in some other socially appropriate activity. Parents should be warned that on the first few occasions time-out is used, the child's negative behaviour escalates before abating, but gradually the duration of the child's response to time-out and the period in time-out reduces. Parents are instructed to use response cost, privilege removal, and physical restraint if the child leaves the chair.

In the seventh session the focus is on coaching parents in how to use time-out from reinforcement for a range of home-based rule violations including swearing, aggression and destructiveness.

In the eighth session parents are instructed in how to manage child behaviour problems when they occur in public places such as shops, restaurants and churches. Parents are coached in how to anticipate problems and develop plans to use social reinforcement, tokens, response cost and time-out in public settings.

In the final session the management of future problems, methods for working co-operatively with school staff, and methods for dealing with co-morbid problems such as enuresis and encopresis (outlined in Chapter 7) are discussed. A booster session is normally offered a month or two after completion of the programme to troubleshoot any difficulties that the parents have in continuing to implement the parenting skills learned over the nine-session programme.

The programme described here is implemented in a flexible rather than a rigid manner. Parents are given handouts at the end of each session covering the main points made, and these are available in Barkley's (2013) treatment manual. At the start of each session homework is reviewed and difficulties with using the behavioural strategies are discussed and resolved. Throughout the programme parents are offered telephone backup, which they are encouraged to use if they have particular difficulties with their children. Because of the flexibility of the programme, additional behaviour management strategies described in

Chapter 10 for the management of oppositional defiant behaviour may be incorporated into Barkley's behavioural parent programme for children with ADHD.

Family intervention with adolescents

While up to two-thirds of pre-adolescents with ADHD can benefit from family intervention, with adolescents various family-based interventions have been found to be effective in only about half of these cases. Behavioural parent training, problem-solving and communication training, and structural family therapy have each been found to be effective in about a third of adolescents with ADHD (Anastopoulos et al., 1996). This is a sobering statistic in view of the fact that these are probably the most effective available family intervention programmes for a wide range of other problems of childhood and adolescence.

With teenagers, the behavioural parent training programme described in the previous section requires some modification. For example, the reinforcement menu may include weekend rather than daily privileges, and for time-out and for rule-breaking parents are advised to prevent teenagers from going out and interacting with their peers for brief specified periods of time. However, problem-solving and communication training and structural family therapy both entail a treatment format that maximally involves the adolescent in treatment and may therefore be preferred on ethical grounds. Both may be conducted over about 10 sessions spanning approximately three months, and there is no reason why elements of both approaches cannot be usefully combined into a course of treatment.

Problem-solving and communication training is a highly directive treatment programme with three core components: communication training, five-step behavioural problem solving and cognitive restructuring. With communication training, active listening and sending clear messages are the main sets of skills in which family members are coached. Active listening involves not interrupting the speaker, summarizing key points made and checking that these have been accurately understood. Sending clear messages requires the speaker to make 'I' statements that reflect his or her views or wishes, to be clear and precise in making points, to avoid blaming and criticizing, and to respect the need for equitable turn-taking so that listeners may check that they have understood the intended message. This is similar to the communication skills training described in Table 4.2 in Chapter 4.

In the five-step problem solving, teenagers and their parents are trained in how to pinpoint commonly encountered adolescent problems such as eating habits, cleaning bedrooms, completing chores, using the phone, spending money, choice of friends, dating, driving cars, doing homework, school grades, timekeeping, care of belongings and clothes, grooming and sibling quarrels. They are then coached in how to tackle one problem at a time in an unemotional way by progressing through five steps. These are (1) defining the problem, (2) suggesting solutions, (3) evaluating solutions and negotiating a consensus, (4) implementing the solution and (5) verifying the outcome. This is similar to the problem-solving skills training described in Table 4.3 in Chapter 4.

Cognitive restructuring is an approach to modifying negative family beliefs and negative attributions that underpin destructive interaction patterns. These beliefs may include the following themes:

- ruination: 'If I let him stay out late he will become a drug addict.'
- approval: 'If my children don't agree with my rules, I am a bad parent.'
- perfectionism: 'He should know how to do that schoolwork.'
- obedience: 'He should be obedient always.'
- self-blame: 'It's my fault that he turned out like this.'
- fairness: 'Parents' rules should be fair according to my standards.'
- autonomy: 'He's grown up and should be able to make his own decisions.'

Problematic attributions include attributing negative intentions to others (for example, 'He's doing that just to annoy me') and attributing problems to relatively unchangeable personal traits or characteristics (for example, 'He did that because he's irresponsible/stupid/bad'). In cognitive restructuring, first the rigid polarized positions adopted by the parent and adolescent are described. Then, the negative beliefs and attributions that underpin these are identified and family members are invited to re-evaluate or test these by checking out the other person's position or looking for evidence that contravenes the negative belief. They are then asked to re-frame the other person's action as being due to situational factors or benign intentions.

In structural family therapy (Minuchin, 1974), the over-riding structural goal of therapy is to help parents draw clear and appropriately permeable boundaries between themselves and the teenager, so that he or she may receive a clear unified parental message about rules of conduct and a clear and unified sense of support from parents. This boundary making may involve challenging cross-generational parent–child coalitions where, for example, rules made by one parent are undermined by another. It may involve challenging an enmeshed family structure where the adolescent is not permitted sufficient privacy and autonomy to individuate and is treated as a 5 year old rather than a 15 year old. It may involve challenging a disengaged family structure where few rules are inconsistently applied with lax supervision.

Structural family therapy begins by identifying conflict-laden issues or primary concerns and reviewing the way in which family members have tried to resolve these issues. Then, within the session the family members are invited to re-enact problem-solving attempts and coached in how to extend their natural problem-solving style further than the point at which they typically become stuck. In this coaching, the therapist may ask one member to withdraw from the discussion while the other two members try to solve the problem. For example, a teenager may be asked to remain silent while parents try to reach agreement on how to manage a discipline issue such as how late he or she should be allowed to stay out on Saturday. The therapist may side temporarily with one family member against another. For example, the therapist may side with the teenager (temporarily) and argue the case for more privacy and autonomy. Or the therapist may side with the parents (temporarily) and push for clearer rules and more supervision.

School intervention

The aim of school-based interventions is to provide the child with an appropriate level of teacher contact, an appropriate curriculum and a contingency management programme (DuPaul & Stoner, 2014).

Where children with ADHD are included in regular classes, an additional teaching assistant for the teaching team working in the main classroom or additional out-of-class remedial tuition is required. This additional resourcing is required to help plan and deliver a modified teaching curriculum to the child using structured behavioural methods. The degree to which the routine class curriculum will require modification will depend upon the precise nature of the learning difficulties and attainment problems identified in the psychological assessment. In primary school most children with ADHD require remedial tuition in reading and mathematics. In secondary school, tutoring in specific subjects may be necessary and study skills training is essential. Assessment of learning difficulties, remedial tuition and study skills training are discussed in Chapter 8.

It is an important part of the clinical psychologist's responsibilities to liaise with appropriate colleagues in the educational system and indicate the need for additional resourcing in a way that is helpful to both the child and the school. Administrative procedures for this type of liaison vary from one jurisdiction to another. Without appropriate resourcing and appropriate curriculum modification, it is often difficult to offer useful support and advice on behavioural management, since such advice usually involves substantial input from school staff who are typically over-burdened with responsibilities. Indeed, when school-based behavioural programmes break down, it is often because teachers had insufficient time to implement special programmes for the child with ADHD due to the demands imposed on teachers by other members of the class.

A large body of research shows that children with ADHD may be motivated to develop appropriate academic skills and behaviour at school through the use of home–school reward systems and contingency management programmes (Wells, 2004). Specific target behaviours and academic goals are set jointly by the teacher, child, parent and psychologist and a points system agreed upon. Points from this system may be used to buy items from a reinforcement menu at home or to achieve specific agreed privileges in school.

When setting academic targets, the materials should be pitched at the child's attainment level and broken into small units, with reinforcement given for completion of specific academic tasks (such as completion of a work sheet) rather than process behaviours (such as sitting still). Repetitive tasks should be avoided where possible. When setting behavioural targets for which the child can earn reinforcers, they should be highly specific and typically centre on following instructions to behave in a positive way rather than cease behaving in a negative way. A response–cost contingency should be used for rule violations, so that the child loses the number of points he or she would have gained for complying with the instruction.

Reinforcers (in the form of tokens for children under 8 and ticks on a report card for older children) should be delivered immediately and frequently following the execution of target behaviours. When reinforcers are being given or response costs are being implemented, it may be more effective if this is conducted quietly and without drawing the attention of the class to the process, since the class's response may make both receiving and losing points equally reinforcing. There should be set times when the child can exchange tokens for items off the home or school reinforcement menu.

Once children show that they can respond to a continuous reward system such as this, written contingency contracts may be used where the child agrees to carry out certain listed target behaviours. In return, the teacher and parents agree to certain rewards if the targets are met and certain response costs if targets are not met.

With older children and teenagers, a daily report card system such as that presented in Figure 10.7 in Chapter 10 may be used. Following each class, the teacher rates the child's performance on four or five listed behaviours and initials the card. The points obtained may be used either at home or in school to purchase items from a reinforcement menu.

Child-focused interventions

Office-based weekly cognitive behavioural social or academic skills training programmes are ineffective in treating ADHD (Pelham & Fabiano, 2008). However, intensive child-focused skills training programs, conducted in summer camp settings, help children improve their peer-group adjustment (Pelham et al., 2010). These interventions are conducted for about 8 hours daily over 5–8 weeks involving 200 to 400 hours of treatment. Daily activities involve brief episodes of social skills training followed by coached group play in recreational activities during which reward systems and behaviour control systems are used. In brief social skills training sessions, young people learn specific skills for making and maintaining friendships, engaging positively with peers and using social problem-solving skills to manage conflict. In coached group play exercises, young people engage in games (for example, swimming and sports) and recreational activities (for example, art) during which there are opportunities for them to use the social skills that they have learned in brief training sessions. Throughout the programme, reward systems and behaviour control systems (like those described in Tables 4.5 and 4.6) are implemented by paraprofessional staff, and backed up with daily report cards (an example of which is given in Figure 10.7) where positive behaviours during the programme are reinforced by parents at home. In addition to traditional social skills, these programs focus on teaching sports skills and team membership skills.

Dietary interventions

There is some evidence that restricted elimination diets in which foods to which the young person is allergic are removed from their diet, artificial food colour elimination and supplemental free fatty acids may have small positive effects on children with ADHD (Stevenson et al., 2014). Referral for allergy testing and dietetic consultations are therefore appropriate in cases of ADHD.

Novel interventions

Currently there is some preliminary evidence for the effectiveness of neurofeedback but little evidence for the effectiveness of cognitive (memory) training in improving the adjustment of children with ADHD (Arns et al., 2013; Rapport et al., 2013; Sonuga-Barke et al., 2013). These treatments are rarely used in routine clinical practice.

Chronic care model

ADHD is a chronic neurodevelopmental disorder, and so psychological services are optimally provided within the context of a chronic care model of service delivery.

Evidence-based clinical child psychology services for young people with ADHD should involve multi-modal treatment which includes family, school and child-focused behavioural programs combined with stimulant therapy, spanning at least 6 months, in the first instance. For effective long-term treatment, infrequent but sustained contact with a multi-disciplinary service over the course of the young person's development should be made available, so that at transitional points within each yearly cycle (such as entering new school classes each autumn) and at transitional points within the lifecycle (such as entering adolescence, changing school or moving house) increased service contact may be offered. Where co-morbid neurodevelopmental, conduct or emotional problems develop, intensive intervention should be offered following the guidelines for those problems presented elsewhere in this text (Piszska, 2009). Along with episodic clinical input, young people with ADHD require ongoing appropriate educational support throughout their school-going years (DuPaul & Stoner, 2014).

Summary

Attention deficit hyperactivity disorder is currently the most common term used for a syndrome characterized by persistent over-activity, impulsivity and difficulties in sustaining attention. About 6–7% of children have meet the criteria for ADHD and about 1% of children have the extreme form of this syndrome which is typically lifelong. Co-morbid neurodevelopmental disorders, conduct disorders and emotional disorders are quite common. A poor outcome occurs in about a third of cases typically having secondary conduct and academic problems. Available evidence suggests that a marked genetic predisposition for an over-active temperament, which finds expression as a result of exposure to physical and psychosocial environmental risk factors during the pre- and peri-natal periods and early infancy, causes the syndrome. Adjustment problems shown by youngsters with ADHD are in part maintained by problematic relationships within the family, school and peer group. Multi-systemic treatment includes psychoeducation, psychostimulant treatment, family intervention, school intervention, social skills training and dietary control. In addition assessment and treatment of co-morbid problems may be required.

Exercise 11.1

Work in groups of three, taking the roles of psychologist and the parents in the case example presented in Box 11.1. The psychologist is invited to help the parents to set up a reinforcement menu and a list of target jobs or chores to be completed. Conduct this consultation as if it occurs halfway into a parent training programme and assume that a good relationship has developed.

Exercise 11.2

Four people take on the roles of the family members in the case example presented in Box 11.1. At least two others take the roles of a treatment team. Imagine Timmy is now 13. The family have returned for a further episode of treatment and have been working with you for 2 weeks. The main focus of concern is Timmy's refusal to come in on time at night. Help the family to use five-step problem solving to find a solution to this problem.

Further reading for psychologists

Barkley, R. (2013). *Defiant children: A clinician's manual for parent training* (3rd ed.). New York: Guilford.

Barkley, R. (2014a). *Attention deficit hyperactivity disorder: A handbook for diagnosis and treatment* (4th ed.). New York: Guilford.

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Guilford.

Sparrow, E., & Erhardt, D. (2014). *Essentials of ADHD assessment for children and adolescents*. Hoboken, NJ: Wiley.

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Further reading for teachers

DuPaul, G., & Stoner, G. (2014). *ADHD in the schools. Assessment and intervention strategies* (3rd ed.). New York: Guilford.

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Nadeau, K., Dixon, E., & Beyl, C. (2004). *Learning to slow down and pay attention: A book for kids about ADHD* (3rd ed.). Washington, DC: Magination Press.

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Wender, P. (1987). *The hyperactive child adolescent and adult. Attention deficit disorder through the lifespan*. New York: Oxford University Press.

Websites

ADHD Foundation UK: http://www.adhdfoundation.org.uk

Australian ADHD associations: http://www.adultadhd.org.au/index.php/about-adhd/90-australian-adhd-organisations

Centre for ADHD Awareness Canada: http://www.caddac.ca/cms/page.php?62

Children and Adults with ADHD (CHAD) US: http://www.chadd.org

The New Zealand ADHD website: http://www.adhd.org.nz/

Russell Barkley's website: http://www.russellbarkley.org

World Federation of ADHD: http://www.adhd-federation.org/world-federation-of-adhd.html

Chapter 12

Fear and anxiety problems

In this chapter, after considering the development of normal fear and abnormal anxiety, the classification and epidemiology of anxiety disorders will be reviewed. There will then be a discussion of the clinical features, aetiological theories, assessment, formulation and management of anxiety disorders in general. This will be followed by detailed guidelines on the treatment of specific anxiety disorders including separation anxiety, selective mutism, specific phobias, social phobia, generalized anxiety disorder (GAD), panic disorder and post-traumatic stress disorder (PTSD).

Fear is the natural response to a stimulus which poses a threat to well-being, safety or security. This response includes cognitive, affective, physiological, behavioural and relational aspects (Antony & Stein, 2009; Essau & Ollendick, 2013). At a cognitive level, the stimulus or situation is construed as threatening or dangerous. At an affective level, there are feelings of apprehension, tension and uneasiness. At a physiological level, autonomic arousal occurs so as to prepare the person to neutralize the threat by fighting or fleeing from danger. With respect to behaviour, the individual may either aggressively approach and confront the danger, especially if they are trapped, or apprehensively avoid it. In the face of extreme threat, however, the person may become immobilized. The interpretation of situations as threatening and the patterning of aggressive or avoidant behaviour are both determined by and have an impact on the relational context within which they occur. For children this context usually includes parents, siblings, school teachers and peers. From this analysis, it is apparent that fear is an adaptive response to danger. It is adaptive for the survival of the individual and, from an evolutionary perspective, it is adaptive for the survival of the species.

Development of fears and anxieties

From infancy through childhood into adolescence, the types of stimuli which elicit fear change, and these changes parallel developments in the individual's cognitive and social competencies and concerns (Essau et al., 2013). Stimuli which elicit fear at different stages of development are listed in Table 12.1. In the first 6 months extreme stimulation such as loud sounds or loss of support elicit fear. However, with the development of object-constancy and cause and effect schemas during the latter half of the first year, a normal concern about separation appears and the child fears strangers and separation from caretakers. In the toddler years, during the pre-operational period, as the skills required for make-believe and imagination develop, but those for distinguishing fantasy from reality are not yet acquired, the child comes to fear imaginary or supernatural creatures. At this time children's mobility also increases, and they come to fear animals and potential burglars. In early childhood, as children's awareness of the natural world and of the world portrayed in the media develops, they come to fear natural disasters such as floods or thunder and lightning, and media-based fears such as epidemics of diseases. In middle childhood, failure in academic and athletic performance at school become a source of fear. With the onset of adolescence the capacity for abstract thought emerges during the stage of formal operational thinking. The youngster can project what will happen in the future and anticipate with considerable sophistication potential hazards, threats and dangers in many domains, particularly that of social relationships. Fears about peer rejection emerge at this stage.

Table 12.1 Fears at different ages

Age	*Psychological and social competencies and concerns relevant to development of fears, phobias and anxiety*	*Principal sources of fear*	*Principal anxiety disorders*
Early infancy 0–6 months	• Sensory abilities dominate infant's adaptation	• Intense sensory stimuli • Loss of support • Loud noises	
Late infancy 6–12 months	• Sensorimotor schemas • Cause and effect, object constancy • Attachment relationship formation	• Strangers • Separation	
Toddler 2–4 years	• Pre-operational thinking • Capacity to imagine but inability to distinguish fantasy from reality	• Imaginary creatures • Potential burglars • The dark	• Separation anxiety* • Selective mutism
Early childhood 5–7 years	• Concrete operational thinking • Capacity to think in concrete logical terms	• Natural disasters (fire, flood, thunder) • Injury • Animals	• Animal phobia • Blood phobia

Middle childhood 8–11 years	- Esteem centres on academic and athletic performance in school	- Media-based fears - Poor academic and athletic performance	- Test anxiety - School phobia
Adolescence 12–18 years	- Formal operational thought - Capacity to anticipate future dangers - Esteem is derived from peer relationships	- Peer rejection	- Social phobias - Agoraphobia - Panic disorder

Note: Adapted from Essau et al. (2013). *Separation anxiety appears in early childhood but peaks in late childhood.

A distinction may be made between normal adaptive fears, which are premised on an accurate appraisal of the potential threat posed by a stimulus or situation, and maladaptive fears, which are based on an inaccurate appraisal of the threat to well-being. These maladaptive fears are referred to as anxiety. With phobic anxiety, the eliciting stimuli are confined to a clearly defined class of objects, events or situations. For example, a child with a dog phobia may appraise all dogs to be potentially dangerous because they may bite, and experience intense fear even when approached by a dog that has been shown to be tame and well trained. With generalized anxiety, the class of eliciting stimuli is less circumscribed and many aspects of the environment are interpreted as potentially threatening, even when there are no reasonable grounds for anticipating danger. Thus the person experiences a high ongoing level of anxiety. Spielberger (1973) has referred to phobic and generalized anxiety as state and trait anxiety, respectively. State anxiety is an acute transient experience which occurs in specific situations. Trait anxiety is a stable enduring chronic condition characterized by hyperarousal. Spielberger (1973) has developed a useful set of self-report questionnaires to measure state and trait anxiety in children and these are listed in the assessment section of this chapter in Table 12.10.

From Table 12.1 it may be seen that the emergence of anxiety disorders which involve the inaccurate appraisal of the potential threat posed by stimuli, follow a developmental course which parallels that of normal fears (Essau et al., 2013). Separation anxiety may present as a clinically significant problem at the transition to school, although it is noteworthy that separation anxiety disorder is most prevalent among children in middle childhood. Selective mutism, which may be conceptualized as an early variant of social phobia, also occurs first during the pre-school years. The onset of animal phobias is most prevalent in early childhood. The onset of test anxiety and other types of performance anxiety peaks in middle childhood. Social anxiety, panic disorder and agoraphobia, which often occurs secondary to panic disorder, tend to first appear in adolescence along with GAD.

From a clinical perspective, typically children are referred for treatment of an anxiety problem when it prevents them from completing developmentally appropriate tasks such as going to school or socializing with friends.

Classification

A system for classifying anxiety problems must take account of the developmental timing of their emergence, the classes of stimuli which elicit anxiety, the pervasiveness and topography of the anxiety response, and the role of clearly identifiable factors in the aetiology of anxiety. DSM-5 (APA, 2013) and ICD-10 (WHO, 1992) take account of these various factors. Separation anxiety and selective mutism are clearly designated as childhood disorders in both systems. Furthermore, both systems distinguish between specific phobias, which are elicited by designated classes of stimuli, and GAD, where many stimuli elicit anxiety. Among the phobias, distinctions are made between specific phobias, where the class of eliciting stimuli is narrow and the effects on the person's adjustment may be quite circumscribed on the one hand; and social phobia and agoraphobia, where broader classes of stimuli are involved and the impact on the person's adjustment may be more pervasive on the other. Panic disorder, where discrete episodes of intense anxiety occur, is distinguished from other conditions such as GAD which have a different topography, with a moderate level of anxiety being experienced over a protracted time period. From Tables 3.1 and 3.2 in Chapter 3 it may be seen that within ICD-10, PTSD and OCD are listed as anxiety disorders, whereas within DSM-5, PTSD is listed with other trauma-related disorders, and OCD is listed with other OCD-spectrum disorders. Nevertheless, within both systems, PTSD is clearly distinguished from other anxiety disorders because of the centrality of trauma to its aetiology. Also, in both systems OCD is viewed as distinct from other anxiety disorders because of its unique symptomatology. In OCD specific cues elicit anxiety-provoking obsessions, and these are temporarily alleviated by engaging in compulsions. On the grounds that OCD shares a genetic diathesis with tic disorders, and like tic disorders involves repetitive actions which interfere with adjustment, OCD and tic disorders are considered elsewhere in Chapter 13.

Epidemiology

International epidemiological studies show that the overall prevalence for anxiety disorders in children and adolescents is approximately 8.1%, with a range of 1.9–23.8% (Costello et al., 2004; Merikangas et al., 2009). A review of studies conducted between 1993 and 2010 showed that the median lifetime prevalence of separation anxiety is 5.9%; of simple phobias is 3.5%; of social phobia is 3.5%; of GAD is 0.8%; and of panic disorder is 0.8% (Essau & Gabbidon, 2013).

A meta-analysis found that 15.9% of trauma-exposed children and adolescents developed PTSD (Alisic et al., 2014). The prevalence of selective mutism is less than 1% (Sharkey & McNicholas, 2008).

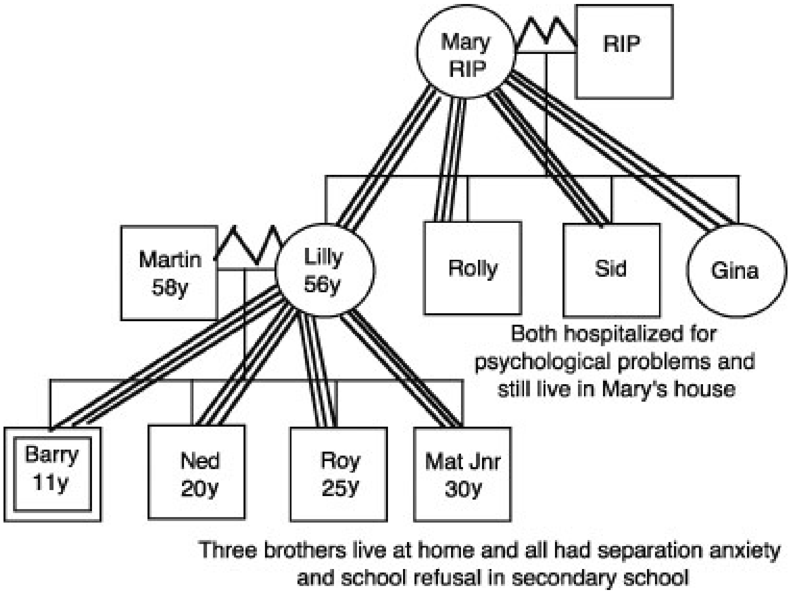
Reviews of international epidemiological studies of childhood anxiety disorders allow the following conclusions to be drawn about age, gender and co-morbidity (Essau & Gabbidon, 2013; Essau et al., 2013; Seligman & Gahr, 2013). Anxiety disorders (with the exception of OCD) are more prevalent in girls than boys. With respect to age trends, it has already been noted that separation anxiety, selective mutism and simple phobias are more common among pre-adolescents, and GAD, panic disorder and social phobia are more common among adolescents. Co-morbidity among anxiety disorders is quite high, so the prevalence rates of individual anxiety disorders sum more than the overall prevalence rate of about 8%. In clinical samples more than half of cases with one anxiety disorder also meet the diagnostic criteria for another anxiety disorder. From Table 3.9 in Chapter 3, it may be seen that co-morbidity rates for anxiety disorders with other disorders is also quite high in community populations. Co-morbidity with major depression is 16.2%, with conduct disorders is 14.8%, and with attention deficit hyperactivity disorder is 11.8%. Co-morbid substance use disorders occur in about 11% of cases of anxiety disorder. Childhood anxiety disorders place children at risk for social isolation, educational underachievement and anxiety and mood disorders in adulthood.

Cases falling above the clinical cut-off score on the anxious/depressed syndrome scale of the ASEBA checklists have clinically significant anxiety symptoms, and epidemiological data concerning such children are therefore relevant here. Co-morbidity rates for such cases in community and clinic samples for other types of problems are presented in Table 3.10 in Chapter 3. For parent-reported symptomatology in clinic samples, it may be seen that the co-morbidity rates for the anxious/depressed syndrome with aggressive behaviour is 41%, with attention problems is 43% and with somatic complaints is 30%. For parent-reported symptomatology in community samples, it may be seen that the co-morbidity rates for the anxious/depressed syndrome with other types of problems is much lower. With aggressive behaviour the co-morbidity rate is 26%, with attention problems is 28% and with somatic complaints is 15%. This pattern of higher co-morbidity rates in clinic samples compared with community samples is a ubiquitous finding and not unique to anxiety disorders.

Diagnosis and clinical features

With separation anxiety, inappropriate fear is aroused by separation from an attachment figure. Although not the only cause of school refusal, it is one of the most common causes of this complaint. A typical case of separation anxiety and school refusal is presented in Box 12.1. Diagnostic criteria for separation anxiety are presented in Table 12.2. Separation anxiety with chronic school refusal is a serious condition since it can lead to social isolation and educational underachievement.

Box 12.1 A case of separation anxiety and school refusal



Referral. Barry, aged 11, was referred because he had not attended school for 2 months following the Easter holidays in the year prior to his entry to secondary school. The family doctor could find no organic basis for the abdominal pain or headaches of which he periodically complained, particularly on the mornings when his mother asked him how his health was. Barry's friends visited him at weekends and he went off cycling with them regularly. But on Monday mornings he was unable to get to school both because of the abdominal pains and also because of a sense of foreboding that something dangerous might happen to his mother. If forced to go to school he would become tearful or aggressive.

Family history. While there was no serious threat to Barry's mother's health, Lilly had a variety of complaints including rheumatism and epilepsy which compromised her sense of well-being. Her epilepsy was usually well controlled, but Lilly had experienced a number of grand mal fits in the 6 months prior to the referral. Barry was one of four children and all had histories of school refusal. Barry's three brothers aged 20, 25 and 30 all lived at home and had few friends or acquaintances. His eldest brother ran a computer software business from his bedroom. All of the boys had very close relationships with their mother and distant relationships with their father. The father, Martin, who was a healthy man, ran a corner shop and worked long hours. He left early in the morning and returned late at night. He was very concerned for the welfare of his son, Barry, and believed that his wife, Lilly, mollycoddled the boy. But he was reluctant to challenge her because he did not want to upset her. The parents had a history of marital discord and over the year prior to the referral had strongly disagreed about how to handle Barry's separation anxiety.

Two of Barry's uncles had psychological adjustment difficulties and both had been on medication, although details of their problems were unavailable. These uncles had lived at home with their mother until her death, and both of them and Lilly and her sister Gina had very close relationships with their mother, Mary, but distant relationships with their father. Lilly's parents had also quarrelled about how best to manage the children, with Mary being lenient and her husband being strict. Thus, the pattern of relationships in both Lilly's family of origin and Barry's family were very similar, as can be seen from the genogram.

School report. At school, Barry was very popular, particularly because he generously shared candy and sweets from his father's shop with his peers. He had complained of bullying once or twice and on one occasion said the gym teacher victimized him.

Psychometric assessment. Psychometric assessment showed that Barry was of high average intelligence and his attainments in reading, spelling and arithmetic were consistent with his overall level of ability. His school reports were good and he was in the top third of his class with respect to ability.

Formulation. Barry presented with separation anxiety disorder and school refusal. Barry's anticipation of the transition to secondary school in the autumn and his awareness of his mother's worsening health may have precipitated the onset of these problems. Predisposing factors in this case include a possible genetic vulnerability to anxiety, a multi-generational history of mother–child over-involvement and the modelling experience of seeing his three brothers develop separation anxiety and subsequent school refusal. The separation anxiety and school refusal were maintained by parental conflict about the management of these problems, the mother's over-concern and the father's limited involvement in the management of Barry's difficulties. It may also have been maintained by the availability of an active social life within the house involving frequent contact with his mother, three brothers and friends who regularly visited him. Protective factors included Barry's good pre-morbid adjustment, the parents' commitment to jointly become involved in Barry's treatment, the school's commitment to help Barry overcome his school refusal, and Barry's membership in a supportive peer group, the members of which wanted him to overcome his problems.

Treatment. Treatment involved a series of family sessions and home–school liaison with the parents and school staff. Martin eventually agreed to drive Barry to school regularly for a month, and arranged for a teacher to meet Barry in the car park and bring him into the classroom where he was to sit with two peers and work on a special project for 20 minutes before class started each day. Concurrently weekly family sessions were held in which progress was assessed, a reward system for school attendance was set up, and the transition to secondary school was discussed. Lilly also arranged for a series of consultations for her epilepsy which became better controlled. Barry returned to school and moved to secondary school in the fall. However, after Christmas, he relapsed and attempts to use a similar approach to treatment were unsuccessful. After missing a year of schooling he eventually was placed at a small tutorial centre where he remained until 16.

With selective mutism the child speaks at home or with close friends and is mute at pre-school, school or with strangers. The condition typically begins in the pre-school years and is associated with social anxiety. A typical case of selective mutism is presented in Box 12.2. Diagnostic criteria are presented in Table 12.3.

Phobic anxiety is the intense fear which occurs when faced with an object, event or situation from a clearly definable class of stimuli which is out of proportion to the danger posed by the stimulus, and leads to persistent avoidance. In the ICD and DSM specific phobias are distinguished from agoraphobia and social phobia or social anxiety disorder. Specific phobias are sub-divided in DSM-5 into those associated with animals; features of the natural environment (such as heights or thunder); blood, injections and injury; and particular situations (such as elevators or flying). An example of a simple phobia is presented in Box 12.3 and diagnostic criteria for both specific phobias and social phobia or social anxiety disorder are presented in Table 12.4. With social phobia the principal fear is of being negatively evaluated by unfamiliar people and behaving in an embarrassing way while under their scrutiny. Social phobia leads to a constricted lifestyle.

Table 12.2 Diagnosis of separation anxiety disorder

DSM-5	*ICD-10*
A. Developmentally inappropriate and excessive fear or anxiety concerning separation from those to whom the individual is attached, as evidenced by at least three of the following: 1. Recurrent excessive distress when anticipating or	The diagnostic feature is a focused excessive anxiety concerning separation from those individuals to whom the child is attached that is not merely part of a generalized anxiety about multiple situations. The anxiety may take the form of a. An unrealistic preoccupying worry about possible harm

experiencing separation from home or from major attachment figures.

2. Persistent and excessive worry about losing major attachment figures or about possible harm to them, such as illness, injury, disasters, or death.
3. Persistent and excessive worry about experiencing an untoward event (e.g., getting lost, being kidnapped, having an accident, becoming ill) that causes separation from a major attachment figure.
4. Persistent reluctance or refusal to go out, away from home, to school, to work, or elsewhere because of fear of separation.
5. Persistent and excessive fear of or reluctance about being alone or without major attachment figures at home or in other settings.
6. Persistent reluctance or refusal to sleep away from home or to go to sleep without being near a major attachment figure.
7. Repeated nightmares involving the theme of separation.
8. Repeated complaints of physical symptoms (e.g., headaches, stomach aches, nausea, vomiting) when separation from major attachment figures occurs or is anticipated.

B. The fear, anxiety, or avoidance is persistent, lasting at least 4 weeks in children and adolescents and typically 6 months or more in adults.

C. The disturbance causes clinically significant distress or impairment in social, academic, occupational, or other important areas of functioning.

D. The disturbance is not better explained by another mental disorder, such as refusing to leave home because of excessive resistance to change in autism spectrum disorder; delusions or hallucinations concerning separation in psychotic disorders; refusal to go outside without a trusted companion in agoraphobia; worries about ill health or other harm befalling significant others in generalized anxiety disorder; or concerns about having an illness in illness anxiety disorder.

befalling major attachment figures or a fear that they will leave and not return.

b. An unrealistic preoccupying worry that some untoward event such as the child being lost, kidnapped or admitted to hospital will separate him or her from a major attachment figure.

c. Persistent reluctance or refusal to go to school because of fear about separation (rather than fear of events at school).

d. Persistent reluctance or refusal to go to sleep without being near or next to a major attachment figure.

e. Persistent inappropriate fear of being alone.

f. Repeated nightmares about separation.

g. Repeated occurrence of physical symptoms (stomach aches or headaches) on occasions involving separation.

h. Excessive recurrent distress in anticipation of, during or after separation from a major attachment figure.

School refusal often represents separation anxiety but sometimes, especially in adolescence, it does not. The diagnosis rests on the demonstration that the common element giving rise to anxiety is separation from a major attachment figure.

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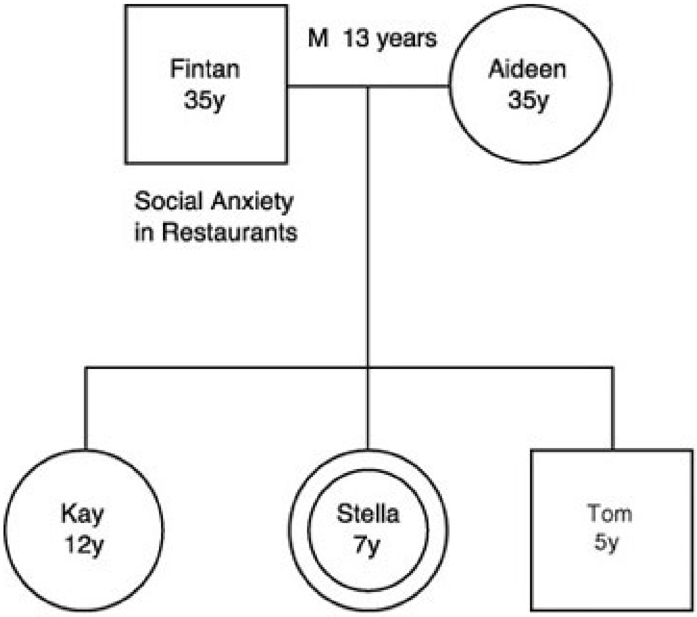
Box 12.2 A case of selective mutism



Referral. Stella Crow, a 7 year old girl, referred by her GP, had a 4-year history of selective mutism, the onset of which coincided with the birth of her younger brother. Her refusal to speak was first noted at that time by the teachers at the playschool which she was attending. As a toddler, she got lost in a large shopping centre in a neighbouring town, and since then had displayed a strong fear of being left alone with strangers, a reluctance to venture far from the house alone and a marked reduction in the number of people with whom she was willing to talk. When we first met the Crows, Stella had been attending primary school for 2 years and had never spoken in that environment.

Family history. Stella lived with her parents, her older sister Kay (12 years) and her younger brother Tom (5 years). The parents were well adjusted, although Mr Crow has a history of mild social anxiety which prevented him from eating in restaurants on some occasions.

Past treatment. The school staff had initially waited for Stella to grow out of her mutism before taking a more active approach to the problem. After a year of little progress, the school staff in conjunction with Mrs Crow devised and implemented a programme during which Stella would read to her mother in the school classroom while the teacher watched from a gradually reduced distance. Stella was making such good progress in reading aloud in the presence of the teacher that Mrs Crow silently left the classroom on one occasion, hoping that this would accelerate her progress. Unfortunately it precipitated a relapse. At the time of referral, some months after this incident, Stella’s school, family and peer group had all accepted her selective mutism and developed ways of accommodating it. For example, her parents would audio-record her reading at home and bring this to school so that the school could provide Stella with reading material to match her ability. Her peers at school would communicate with her in sign language or by passing notes.

Formulation. Stella presented with selective mutism. The onset of the condition was precipitated by the incident where she got lost while shopping. Stella may have been predisposed to developing selective mutism because she had an inhibited temperament, probably inherited from her father. It was then exacerbated by the incident where, without Stella’s consent, her mother left the classroom while Stella was reading to her mother and teacher. There were two maintaining factors. First, the mutism reduced social anxiety, and second, the parents, teachers and peers had accommodated to the mutism.

Treatment. A stimulus fading programme was conducted on a daily basis over 8 weeks. Through graded steps, Stella moved from reading to her mother sitting close by in the school classroom to a situation where she read to her mother who stood just outside the doorway of the classroom. Concurrently, Stella’s teacher and close friends, over the 8-week treatment programme, gradually moved from listening to her reading from outside the door to listening while sitting close to her. As Stella progressed through this programme and tolerated her mother’s increasing distance and the greater proximity of her teacher and friends, she was rewarded with tokens for achieving each step. She exchanged these tokens for valued treats. After 8 weeks Stella spontaneously began to speak in class.

Table 12.3 Diagnosis of mutism

DSM-5 Selective Mutism	*ICD-10 Elective Mutism*
A. Consistent failure to speak in specific social situations in	

which there is an expectation for speaking (e.g., at school) despite speaking in other situations. B. The disturbance interferes with educational or occupational achievement or with social communication. C. The duration of the disturbance is at least 1 month (not limited to the first month of school). D. The failure to speak is not attributable to a lack of knowledge of, or comfort with, the spoken language required in the social situation. E. The disturbance is not better explained by a communication disorder (e.g., childhood-onset fluency disorder) and does not occur exclusively during the	The condition is characterized by a marked, emotionally determined, selectivity in speaking, such that the child demonstrates his or her language competence in some situations but fails to speak in other (definable) situations. Most frequently the disorder is first manifest in early childhood. It occurs with the same frequency in the two sexes. It is usual for the mutism to be associated with marked personality features involving social anxiety, social withdrawal, social sensitivity, and resistance or oppositional behaviour. Typically the child speaks at home or with close friends and is mute at school or with strangers, but other patterns (including the converse) can occur. A substantial minority of children with selective mutism have a history of either some speech delay or articulation problems. The diagnosis presupposes (a) a normal or near normal level of language comprehension; (b) a level of competence in language expression that is sufficient for social communication; and (c) demonstrable evidence that the individual can and does speak normally or almost normally in some situations. The diagnosis excludes transient mutism as part of separation anxiety in young children, specific developmental disorders of speech and language, pervasive developmental disorders and schizophrenia.

course of autism spectrum disorder, schizophrenia, or another psychotic disorder.

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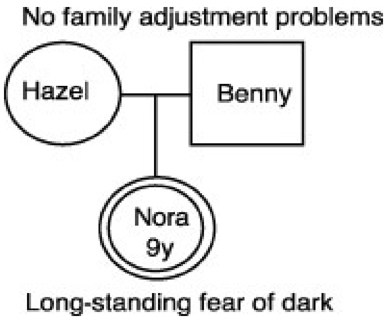
Box 12.3 A case of a specific phobia



Nora, aged 9, was referred because of her fear of the dark. She wanted to go on a camping trip with the Brownies but was frightened because she would have to sleep in complete darkness. This was something she had never done. She always slept with the light on in her bedroom and with the door open and the landing light on. Her developmental history was unremarkable and she had never experienced a traumatic incident in the darkness. Her parents had tried to convince her to sleep with the light off, but she became so distressed on these occasions that they had stopped making such attempts and believed that she would eventually grow out of the darkness phobia. Nora was an only child and there was no family history of anxiety disorders or adjustment problems, nor was there a developmental history of a particularly traumatic incident. This uncomplicated simple phobia was treated with in vivo, parent-assisted systematic desensitization. That is, with support from her parents, on successive nights Nora was helped to cope with sleeping in an increasingly darker bedroom at home. The level of illumination was decreased by leaving the light outside her room illuminated and gradually closing the door further on successive nights. After a month of this treatment programme, Nora's darkness phobia had improved sufficiently for her to go camping and successfully sleep in a dark tent for 3 nights without experiencing undue anxiety.

Table 12.4 Diagnosis of phobias

	DSM-5	*ICD-10*
Specific phobia	A. Marked fear or anxiety about a specific object or situation (e.g., flying, heights, animals, receiving an injection, seeing blood). Note: In children, the fear or anxiety may be expressed by crying, tantrums, freezing, or clinging. B. The phobic object or situation almost always provokes immediate fear or anxiety. C. The phobic object or situation is actively avoided or endured with intense fear or anxiety. D. The fear or anxiety is out of proportion to the actual danger posed by the specific object or situation and to the sociocultural context. E. The fear, anxiety, or avoidance is persistent, typically lasting for 6 months or more. F. The fear, anxiety, or avoidance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning. G. The disturbance is not better explained by the symptoms of another mental disorder, including fear, anxiety, and avoidance of situations associated with panic-like symptoms or other incapacitating symptoms (as in agoraphobia): objects or situations related to obsessions (as in obsessive-compulsive disorder); reminders of traumatic events (as in posttraumatic stress disorder); separation from home or attachment figures (as in separation anxiety disorder); or social situations (as in social anxiety disorder).	Simple phobias are restricted to highly specific situations such as particular animals, heights, darkness, thunder, urinating or defecating in public toilets, the sight of blood and fear of exposure to specific diseases such as AIDS or STDs. All of the following must be fulfilled for a definite diagnosis: a. The psychological or autonomic symptoms must be primarily manifestations of anxiety and not secondary to other symptoms such as delusions or obsessional thoughts. b. The anxiety must be restricted to the presence of a specific phobic object. c. The phobic situation is avoided whenever possible.

Social anxiety disorder or social phobia	(For specifiers, see DSM-5, p. 198.) A. Marked fear or anxiety about one or more social situations in which the individual is exposed to possible scrutiny by others. Examples include social interactions (e.g., having a conversation, meeting unfamiliar people), being observed (e.g., eating or drinking), and performing in front of others (e.g., giving a speech). Note: In children, the anxiety must occur in peer settings and not just during interactions with adults. B. The individual fears that he or she will act in a way or show anxiety symptoms that will be negatively evaluated (i.e., will be humiliating or embarrassing; will lead to rejection or offend others). C. The social situations almost always provoke fear or anxiety. Note: In children, the fear or anxiety may be expressed by crying, tantrums, freezing, clinging, shrinking, or failing to speak in social situations. D. The social situations are avoided or endured with intense fear or anxiety. E. The fear or anxiety is out of proportion to the actual threat posed by the social situation and to the sociocultural context. F. The fear, anxiety, or avoidance is persistent, typically lasting for 6 months or more. G. The fear, anxiety, or avoidance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning. H. The fear, anxiety, or avoidance is not attributable to the physiological effects of a substance (e.g., a drug of abuse, a medication) or another medical condition. I. The fear, anxiety, or avoidance is not better explained by the symptoms of	Social phobias are centred around a fear of scrutiny by other people in comparatively small groups (as opposed to crowds) leading to avoidance of social situations. They may be discrete (i.e. restricted to eating in public, to public speaking, or to encounters with the opposite sex) or diffuse, involving almost all social situations outside the family circle. All of the following should be fulfilled for a definite diagnosis. a. The psychological or autonomic symptoms must be primarily manifestations of anxiety and not secondary to other symptoms such as delusions or obsessional thoughts. b. The anxiety must be restricted to or predominate in particular social situations. c. Avoidance of the phobic situations must be a prominent feature.

another mental disorder, such as panic disorder, body dysmorphic disorder, or autism spectrum disorder.

J. If another medical condition (e.g., Parkinson's disease, obesity, disfigurement from burns or injury) is present, the fear, anxiety, or avoidance is clearly unrelated or is excessive.

(For specifiers, see DSM-5, p. 203.)

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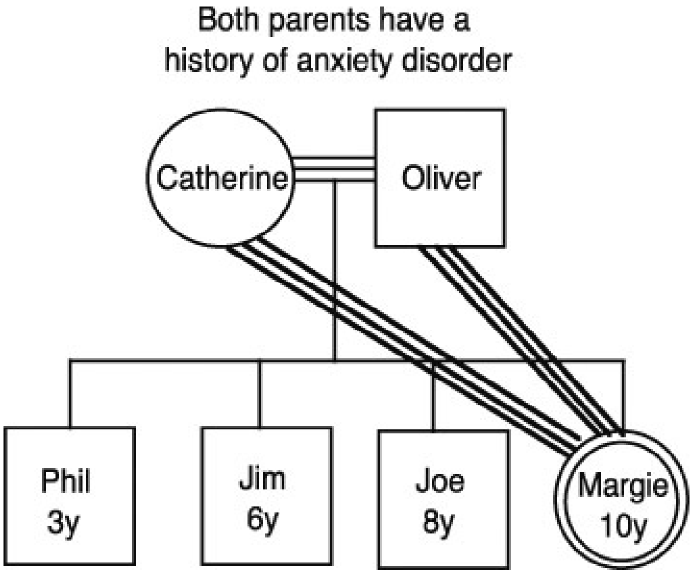
When young people experience GAD, they have an ongoing apprehension that misfortunes of various sorts will occur. Their anxiety is not focused on one particular object or situation. This apprehension is accompanied by concerns that worrying has become uncontrollable, feeling of tension, and concentration and sleep difficulties. An example of a case of GAD is presented in Box 12.4 and diagnostic criteria are set out in Table 12.5.

With panic disorder there are recurrent unexpected panic attacks. These attacks are extremely distressing and experienced as acute episodes of intense anxiety. Youngsters come to perceive normal fluctuations in autonomic arousal as anxiety provoking, since they may reflect the onset of a panic attack. Commonly, secondary agoraphobia develops. The youngster fears leaving the safety of the home in case a panic attack occurs in a public setting. A case example of panic attacks with agoraphobia is presented in Box 12.5 and diagnostic criteria for panic disorder and for agoraphobia are presented in Table 12.6.

PTSD occurs following a catastrophic trauma which the child perceives to be potentially life-threatening for themselves or others. In PTSD children have recurrent intrusive memories of the trauma that leads to intense anxiety. They try to avoid this by suppressing the memories and avoiding situations that remind them of the trauma. A case example of PTSD is presented in Box 12.6 and diagnostic criteria are set out in Table 12.7. In DSM-5 there are less stringent diagnostic criteria for children under 6 years which take account of their developmental characteristics.

The clinical features of the six types of anxiety disorders described earlier are presented in Table 12.8. Clinical features in the domains of perception, cognition, affect, arousal, behaviour and interpersonal adjustment are given. With respect to perception, the five disorders differ in the classes of stimuli which elicit anxiety. With separation anxiety, the stimulus is separation from the caregiver. With selective mutism, the stimulus is threatening social situations. For phobias it is specific creatures (e.g. animals), events (e.g. injury) or situations (e.g. flying) that elicit anxiety. With GAD, the person interprets many aspects of their environment as potentially threatening. In panic disorder, somatic sensations of arousal such as tachycardia are perceived as threatening since they are expected to lead to a full-blown panic attack. With PTSD, internal and external cues that remind the person of the trauma that led to the disorder elicit anxiety.

Box 12.4 A case of generalized anxiety disorder



Referral. Margie, aged 10, was referred because of excessive tearfulness in school which had been gradually worsening over a number of months. The tearfulness was unpredictable. She would often cry when spoken to by the teacher or while playing with her friends during break time. In the referral letter her family doctor described her as *a worrier, like her mother.*

Presentation. In the intake interview Margie said that she worried about many routine daily activities and responsibilities. She worried about doing poorly at school, that she had made mistakes which would later be discovered, that her friends wouldn't like her, that her parents would be disappointed with the way she did her household jobs, that she would be either too early or too late for the school bus, that there would be no room for her on the bus, and that she would forget her schoolbooks. She worried about her health and had frequent stomach aches. She also had wider ranging fears about the safety of her family. She worried that the house would be struck by lightning, that the river would break its banks and flood the low-lying fens where she lived and that her house would be washed away. She had concerns about the future and worried that she would fail her exams; be unable to find a satisfactory job; would fail to find a marital partner or would marry an unsuitable person. She also worried that she had lost control of her mind and that her worrying was spiralling out of control. She reported feeling continually restless and unable to relax.

Psychometric assessment. On the ASEBA Child Behaviour Checklist and Teacher Report, Margie scored above the clinical cut-off for the internalizing scale and showed elevations on all internalizing sub-scales. A psychometric assessment of her abilities showed that her IQ fell within the normal range and that her attainments in reading, spelling and arithmetic were consistent with her overall level of ability.

Family history. Margie was the eldest of four children and the only girl in the family. Both of her parents showed symptoms of anxiety in the intake interview and her mother had been treated with benzodiazepines for anxiety over a number of years. The parents regularly discussed their worries about their own health, safety and their own concerns about the uncertainty of the future. The father, Oliver, worked with an insurance company, and frequently discussed accidents and burglaries that had befallen his clients. Margie regularly participated in these conversations, being the eldest child. The parents' chief concern was about Margie's tearfulness which they viewed as unusual. Her worries and fears they saw as quite legitimate. Margie had a couple of close friends with whom she played at the weekends, but spent a lot of time in her parents' company.

Formulation. Margie presented with a generalized anxiety disorder. No clear-cut precipitating factor for the condition was apparent. The condition had gradually evolved over the course of Margie's development. However, the referral was precipitated by episodes of tearfulness at school. Predisposing factors in this case included a possible genetic vulnerability to anxiety and exposure to a family culture marked by a concern with safety and an over-sensitivity to danger. Ongoing involvement in parental conversations about potential threats to the well-being of family members possibly maintained the condition along with inadvertent reinforcement of Margie's tearfulness at school, where crying was responded to with considerable concern. Protective factors in this case included good pre-morbid adjustment, particularly at school, the parents' and school's commitment to resolving the problem and the availability of peer-group support.

Treatment. Treatment in this case involved family work focusing on helping Margie and her parents reduce the amount of time they spent talking about danger and threats and increase the amount of time they spent engaged in activities and conversations focusing on Margie's strengths and capabilities. The parents were also helped to coach Margie in relaxation skills and mastery oriented coping self-statements. Some reduction in anxiety and tearfulness occurred and Margie showed some improvement in her adjustment in school.

Table 12.5 Diagnosis of generalized anxiety disorder

DSM-5	*ICD-10*
A. Excessive anxiety and worry (apprehensive expectation), occurring more days than not for at least 6 months, about a number of events or activities (such as work or school performance).	
B. The individual finds it difficult to control the worry. C. The anxiety and worry are associated with three (or more) of the following six symptoms (with at least some symptoms having been present for more days than not for the past 6 months); Note: Only one item is required in children. 1. Restlessness or feeling keyed up or on edge. 2. Being easily fatigued. 3. Difficulty concentrating or mind going blank. 4. Irritability. 5. Muscle tension. 6. Sleep disturbance (difficulty falling or staying asleep, or restless, unsatisfying sleep). D. The anxiety, worry, or physical symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning. E. The disturbance is not attributable to the physiological effects of a substance (e.g., a drug of abuse, a medication) or another medical condition (e.g., hyperthyroidism). F. The disturbance is not better explained by another mental disorder (e.g., anxiety or worry about having panic attacks in panic disorder, negative evaluation in social anxiety disorder [social phobia], contamination or other obsessions in obsessive-compulsive disorder, separation from attachment figures in separation anxiety disorder, reminders of traumatic events in posttraumatic stress disorder, gaining weight in anorexia nervosa, physical complaints in somatic symptom disorder, perceived appearance flaws in body dysmorphic disorder, having a serious illness in illness anxiety disorder, or the content of delusional beliefs in schizophrenia or delusional	The essential feature is anxiety which is generalized and persistent but not restricted to any particular environmental circumstance. The dominant symptoms are highly variable but complaints of continuous feelings of nervousness, trembling, muscular tension, sweating, light-headedness, palpitations, dizziness, and epigastric discomfort are common. Fears that the sufferer or a relative will shortly become ill or have an accident, are often expressed together with a variety of other thoughts and forebodings. The sufferer must have the primary symptoms for most days for several weeks at a time, and usually for several months. These symptoms should usually involve elements of a. apprehension (worry about future misfortune, feeling on edge, difficulty in concentrating). b. motor tension (restless fidgeting, tension headaches, trembling, inability to relax). c. autonomic over-activity (light headedness, sweating, tachycardia, tachypnoea, epigastric discomfort, dizziness, dry mouth). In children frequent need for reassurance and recurrent somatic complaints may be prominent.

disorder).

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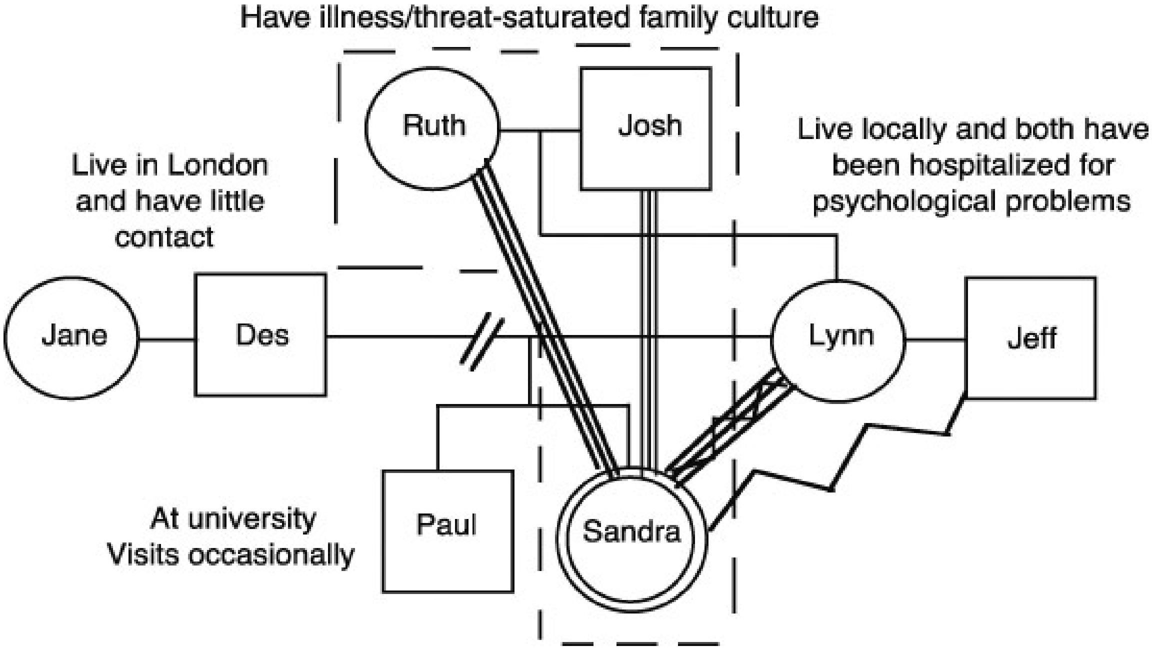
Box 12.5 A case of panic disorder with agoraphobia



Referral. Sandra, a 15 year old girl, was referred because of anxiety about sitting exams. She lived with her grandparents, Ruth and Josh. She slept and ate well and appeared to be happy. However, she would not venture away from the house. A tutor from the local technical college at which she was enrolled had regularly brought schoolwork to her for about 9 months. The immanence of her O-level exams, which were due to be held at the college, precipitated the referral. She wanted to overcome her anxiety so that she could travel to college and sit her exams, which she had felt unable to complete the previous year due to anxiety.

History of the presenting problem. In a preliminary interview, conducted at her grandparents' house, she described a fear of leaving the safety of her home and how this fear increased with distance from her house. The fear began during her mock O-level school exams a year previously. She had a panic attack and left the exam hall. She ran to her grandparents' house after this incident and subsequent attempts to return to school led to further panic attacks. During the attacks she couldn't catch her breath and felt dizzy. She also felt as if she were out of her body (depersonalization) and as if the world was dreamlike (derealization). She then feared she would die. The initial attack lasted no more than a few minutes. Subsequent attacks were similar to the first. After some preliminary ineffective attempts to help her get out and about, her family and the college staff gave up trying. On many occasions, when she found herself any distance from the house, she would begin to panic and run back quickly. This led to the symptoms of panic abating. One staff member at the college visited her and taught her some relaxation exercises. He suggested she use these to help her cope with attempts to leave the house, but she found them of little benefit. Eventually she settled for a house-bound life.

On a couple of occasions, when she had sufficient courage to visit her friends, she had panic attacks. At these times she was frightened of accepting a cup of hot tea because she believed she might not be able to finish the tea without scalding herself, should she experience a panic attack and need to escape from the situation quickly. She said she would not like to offend her friends by not finishing her tea. Sandra was also frightened of going on buses or in cars on the motorway and of queuing at the bank. She worried that she might have a panic attack in these situations and not be able to get home safely.

Family history. Sandra's parents were divorced. Her father, Des, was a police officer in London and had separated from her mother, Lynn, when Sandra was 7 years old. Lynn lived near the grandparents in a rural village about a three-hour drive from London. Lynn co-habited with Jeff whom she had met while hospitalized for depression. She had an extensive history of psychiatric treatment for anxiety and depression. Sandra's mother and grandparents were preoccupied with physical illness and psychological problems and regularly discussed threats to each other's well-being. They shared a view based on Lynn's experiences, that psychological problems ran a chronic course and were unresponsive to psychological treatments, because they were due to biological factors. There were a number of distinctive family relationships in this case. Sandra had very close relationships with her mother and grandparents. The mother and grandmother were involved in regular conflicts over the suitability of Jeff as a partner for Lynn. Sandra's brother, Paul, who attended university, visited her occasionally with his friends and she envied his lifestyle. He rarely joined in the conversations about illness at the grandparents' house. He was a drama enthusiast and Sandra would help him rehearse his lines when he visited. For Sandra, this was a welcome break from the regular conversation about ill health at her grandparents' house. Sandra had four or five friends who lived locally and two of these visited regularly.

Formulation. Sandra presented with panic disorder with agoraphobia, initially precipitated by participation in a school examination. The principal predisposing factors were a genetic vulnerability to anxiety from the mother's side of family and a family culture that focused on illness, fear and danger. Multiple unsuccessful treatments and the experience of negative reinforcement afforded by escaping from threatening situations maintained the agoraphobic, avoidant behaviour. Other maintaining factors included the father's lack of involvement in attempts to help Sandra recover, combined with the grandparents' and mother's over-involvement with Sandra. This maintained Sandra's anxiety and prevented recovery because it led to her continued involvement in conversations about illness, fear and danger, and a pessimistic biomedical view of anxiety. However, Sandra's good pre-morbid adjustment, her positive relationship with her brother who was a good role model for recovery, her two positive close peer relationships, and a desire for vocational progression were important protective factors in this case. The family and the school also were supportive of treatment that might help Sandra sit her exams.

Treatment. Treatment in this instance began with family work involving the grandparents, the mother and on a couple of occasions the father to reduce the amount of illness and anxiety-focused conversation to which Sandra was exposed and to challenge the beliefs that psychological problems were unresponsive to psychological treatments. This was followed with in vivo systematic desensitization coupled with a brief trial of clomipramine (Anafranil). In vivo systematic desensitization involved Sandra being supported to make increasingly longer outings from her house while concurrently using relaxation exercises to help her to manage the anxiety these outings evoked. Sandra could not tolerate the side effects of clomipramine so the medication was discontinued. It was also arranged for her to sit exams at school in a private room. Following this, a work placement at a crèche and at an old folks' home were arranged by the college staff. While Sandra made a good recovery, she suffered periodic relapses and re-referred herself for a number of further episodes of treatment over the following 2 years.

Table 12.6 Diagnosis of panic disorder and agoraphobia

	DSM-5	*ICD-10*
	A. Recurrent unexpected panic attacks. A panic attack is an abrupt surge of intense fear or intense discomfort that reaches a peak within minutes, and during which time four (or more) of the following symptoms occur: Note: The abrupt surge can occur from a calm state or an anxious state.	Several severe panic attacks within a period of about a month. The dominant symptoms of a panic attack vary from person to person but sudden onset of palpitations, chest pain,

Panic disorder	1. Palpitations, pounding heart, or accelerated heart rate. 2. Sweating. 3. Trembling or shaking. 4. Sensations of shortness of breath or smothering. 5. Feelings of choking. 6. Chest pain or discomfort. 7. Nausea or abdominal distress. 8. Feeling dizzy, unsteady, light-headed, or faint. 9. Chills or heat sensations. 10. Paresthesias (numbness or tingling sensations). 11. Derealization (feelings of unreality) or depersonalization (being detached from oneself). 12. Fear of losing control or "going crazy." 13. Fear of dying. Note: Culture-specific symptoms (e.g., tinnitus, neck soreness, headache, uncontrollable screaming or crying) may be seen. Such symptoms should not count as one of the four required symptoms. B. At least one of the attacks has been followed by 1 month (or more) of one or both of the following: 1. Persistent concern or worry about additional panic attacks or their consequences (e.g., losing control, having a heart attack, "going crazy").	choking sensations, dizziness, and feelings of unreality (depersonalization or derealization) are common. There is also, almost invariably, a secondary fear of dying, losing control, or going mad. Individual attacks usually only last for minutes. An individual in a panic attack often experiences a crescendo of fear and autonomic symptoms which result in a hurried exit from wherever he or she may be. If this occurs in a specific situation such as on a bus or in a crowd, the patient may subsequently avoid that situation. Frequent and unpredictable panic attacks produce a fear of being alone or going into public places.

    2. A significant maladaptive change in behaviour related to the attacks (e.g., behaviours designed to avoid having panic attacks, such as avoidance of exercise or unfamiliar situations).

C. The disturbance is not attributable to the physiological effects of a substance (e.g., a drug of abuse, a medication) or another medical condition (e.g., hyperthyroidism, cardiopulmonary disorders).

D. The disturbance is not better explained by another mental disorder (e.g., the panic attacks do not occur only in response to feared social situations, as in social anxiety disorder; in response to circumscribed phobic objects or situations, as in specific phobia; in response to obsessions, as in obsessive-compulsive disorder; in response to reminders of traumatic events, as in posttraumatic stress disorder; or in response to separation from attachment figures, as in separation anxiety disorder).

A. Marked fear or anxiety about two (or more) of the following five situations:

    1. Using public transportation (e.g.,

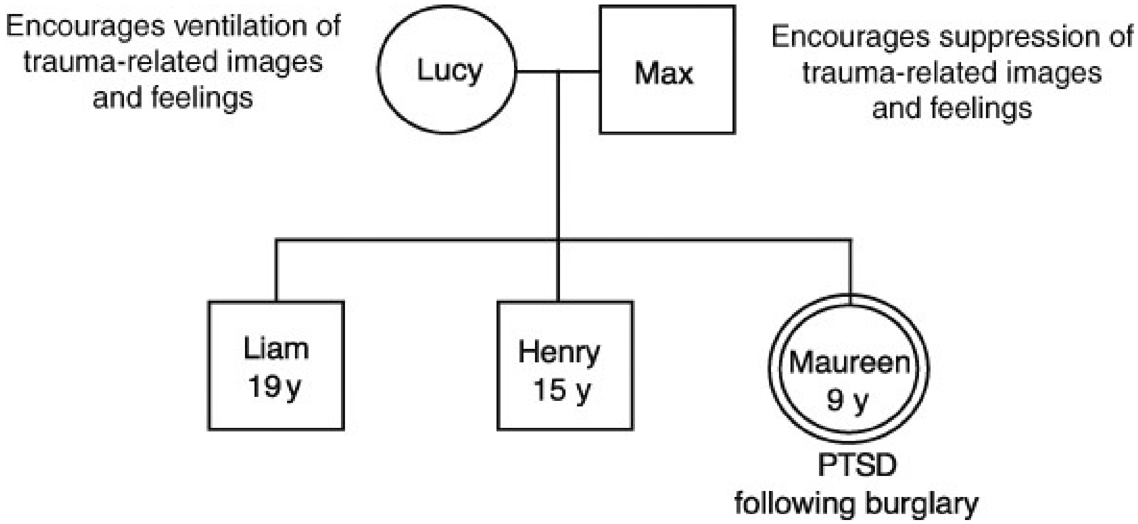
Agoraphobia	automobiles, buses, trains, ships, planes). 2. Being in open spaces (e.g., parking lots, marketplaces, bridges). 3. Being in enclosed places (e.g., shops, theatres, cinemas). 4. Standing in line or being in a crowd. 5. Being outside of the home alone. B. The individual fears or avoids these situations because of thoughts that escape might be difficult or help might not be available in the event of developing panic-like symptoms or other incapacitating or embarrassing symptoms (e.g. fear of falling in the elderly; fear of incontinence). C. The agoraphobic situations almost always provoke fear or anxiety. D. The agoraphobic situations are actively avoided, require the presence of a companion, or are endured with intense fear or anxiety. E. The fear or anxiety is out of proportion to the actual danger posed by the agoraphobic situations and to the sociocultural context. F. The fear, anxiety, or avoidance is persistent, typically lasting for 6 months or more.	Agoraphobia refers to an interrelated and overlapping cluster of phobias including a fear of leaving home; fear of entering shops, crowds, and public places or travelling alone in trains, buses or planes. Some sufferers become completely housebound. Many are terrified by the thought of collapsing and being left helpless in public. The lack of an immediately available exit is one of the key features of many of these agoraphobic situations. All of the following should be fulfilled for a definite diagnosis.

G. The fear, anxiety, or avoidance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning. H. If another medical condition (e.g., inflammatory bowel disease, Parkinson's disease) is present, the fear, anxiety, or avoidance is clearly excessive. I. The fear, anxiety, or avoidance is not better explained by the symptoms of another mental disorder – for example, the symptoms are not confined to specific phobia, situational type; do not involve only social situations (as in social anxiety disorder); and are not related exclusively to obsessions (as in obsessive-compulsive disorder), perceived defects or flaws in physical appearance (as in body dysmorphic disorder), reminders of traumatic events (as in posttraumatic stress disorder), or fear of separation (as in separation anxiety disorder).	a. The psychological or autonomic symptoms must be primarily manifestations of anxiety and not secondary to other symptoms such as delusions or obsessional thoughts. b. The anxiety must be restricted to at least two of the following situations: crowds, public places, travelling away from home, travelling alone. c. Avoidance of the phobic situation must be a prominent feature. Agoraphobia may occur with or without panic attacks.

Note: DSM-5 diagnostic criteria are reprinted with permission from the *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition* (APA, 2013). Copyright © 2013 American Psychiatric Association. The material in the column headed ICD-10 is a summary of the clinical description and diagnostic guidelines for panic disorder and agoraphobia. For the full official WHO clinical descriptions and diagnostic guidelines for these disorders see WHO, 1992, pp. 139–140, 135–136.

Cognitions in all six anxiety disorders have the detection and/or avoidance of danger as the central organizing theme. In separation anxiety, children believe that they or their parents will be harmed if separation occurs. With selective mutism, the child believes that something threatening will happen if he or she speaks in school or other situations in which mutism occurs. With phobias, the child believes that contact with the feared object or creature or entry into the feared situation will result in harm, such as being bitten by a dog in the case of dog phobia or being negatively judged by strangers in the case of social phobia. With GAD, children catastrophize about many features of their environment. For example they may fear that the house will burn down, their parents' car will crash, they will be punished for soiling their clothes, their friends will leave them and so forth. They also believe that they have lost control of the worrying process. In panic disorder, the child believes that further panic attacks may be fatal and often secondary beliefs evolve that lead to agoraphobia. That is, youngsters believe that provided they remain within the safety of the home, the panic attacks will be less likely to occur. With PTSD, there is a belief that provided the memories of the trauma are excluded from consciousness, the danger of re-experiencing the intense fear and danger associated with the trauma that led to PTSD can be avoided.

Box 12.6 A case of PTSD



History of the presenting problem. Maureen, a 9 year old, was referred by the family doctor because of recurrent nightmares, a refusal to sleep in her own bed and withdrawn behaviour at school. These problems had developed following a burglary. The family were in the house when the burglary happened. The parents awoke and brought the three children into their room as quietly as possible. However, the burglar panicked when they heard this and ran up the stairs to the bedroom shouting violent threats. Maureen thought that the burglar was going to kill all members of the family. After an unsuccessful attempt to break down the bedroom door, the burglar left the house. When it was clear that the burglar had left the house, Maureen and the rest of the family went downstairs and saw that the ground floor of the house had been ransacked.

During assessment Maureen said that she became anxious each evening as bedtime approached. She could only sleep with the light on. She had vivid nightmares about the robbery and in these her parents were killed. She could only return to sleep if her parents slept in her bed or she slept in theirs. During the day she had flashbacks of images of dark figures chasing her and also sudden pangs of fear. She found it hard to concentrate on her schoolwork or to join in games with her friends. She tried to deal with the flashbacks and pangs of fear by putting them out of her mind or talking to her parents about them.

Maureen's two older brothers (aged 15 and 19) and her parents while shaken by the event had similar but less pronounced symptoms. The family vacillated between reassuring Maureen that everything was all right now and urging her to forget the incident on the one hand and allowing her to ventilate her fears and ruminations on the other. Occasionally the parents, Lucy and Max, argued about the best approach to managing the situation.

Formulation. Maureen presented with PTSD (intrusive traumatic memories, the use of avoidance strategies, ongoing anxiety and sleep disturbance). No clear predisposing factors were identified in this case. The burglary precipitated the onset of Maureen's problems. The symptoms were maintained by Maureen's attempt to keep them out of her mind and her parents' partial support for using this avoidant coping strategy.

Treatment. Treatment in this case involved trauma-focused family work which focused on helping the parents and two older brothers support Maureen while *exposed* to ongoing detailed vivid conversation about the burglary. During these sessions Maureen and her parents developed a shared narrative about the burglary, its impact upon them and the strategies they were now using to make their lives safe and secure. Arrangements were made for Maureen to sleep in her parents' bedroom for a number of months. She was also invited to record all her vivid trauma-related dreams and make pictures of them and bring them to the family sessions. To help Maureen develop a sense of mastery, in the family sessions family members retold the dream stories but altered the endings so that Maureen vanquished the dark figures who chased her. A gradual reduction in nightmares, daytime intrusive images and emotions and avoidance behaviour occurred over a period of 6 months.

Table 12.7 Diagnosis of PTSD

DSM-5 (over 6 years)	*DSM-5 (Under 6 years)*	*ICD-10*

A. Exposure to actual or threatened death, serious injury, or sexual violence in one (or more) of the following ways: 1. Directly experiencing the traumatic event(s). 2. Witnessing, in person, the event(s) as it occurred to others. 3. Learning that the traumatic event(s) occurred to a close family member or close friend. In cases of actual or threatened death of a family member or friend, the event(s) must have been violent or accidental. 4. Experiencing repeated or extreme exposure to aversive details of the	A. In children 6 years and younger, exposure to actual or threatened death, serious injury, or sexual violence in one (or more) of the following ways: 1. Directly experiencing the traumatic event(s). 2. Witnessing, in person, the event(s) as it occurred to others, especially primary caregivers. Note: Witnessing does not include events that are witnessed only in electronic media, television, movies, or pictures. 3. Learning that the traumatic event(s) occurred to a parent or caregiving figure. B. Presence of one (or more) of the following intrusion symptoms associated with the traumatic event(s),	PTSD arises as a delayed and/or protracted response to a stressful event or situation of an exceptionally threatening or catastrophic nature, which is likely to cause pervasive distress to almost anyone (e.g. natural or man-made disaster, combat, serious accident, witnessing the violent death of others, being a victim of rape, torture, terrorism or another crime). Typical symptoms include episodes of

traumatic event(s) (e.g., first responders collecting human remains; police officers repeatedly exposed to details of child abuse).

Note: Criterion A4 does not apply to exposure through electronic media, television, movies, or pictures, unless this exposure is work related.

B. Presence of one (or more) of the following intrusion symptoms associated with the traumatic event(s), beginning after the traumatic event(s) occurred:
   1. Recurrent, involuntary, and intrusive distressing memories of the traumatic event(s).

   Note: In children older than 6 years, repetitive play may occur in which themes or beginning after the traumatic event(s) occurred:
   1. Recurrent, involuntary, and intrusive distressing memories of the traumatic event(s).

   Note: Spontaneous and intrusive memories may not necessarily appear distressing and may be expressed as play reenactment.
   2. Recurrent distressing dreams in which the content and/or affect of the dream are related to the traumatic event(s).

   Note: It may not be possible to ascertain that the frightening content is related to the traumatic event.
   3. Dissociative reactions (e.g., flashbacks) in which the child feels or acts as if the traumatic event(s) were recurring.

repeated reliving of the trauma in intrusive memories (flashbacks) or dreams, occurring against the persisting background of a sense of numbness and emotional blunting, detachment from other people, unresponsiveness to surroundings, anhedonia, and avoidance of activities and situations reminiscent of the trauma. Commonly there is a fear and avoidance of cues that remind the sufferer of the original trauma. Rarely there may be dramatic acute bursts of fear, panic, or aggression triggered by stimuli arousing a sudden recollection and/or re-enactment of the trauma.

There is usually a state of autonomic hyperarousal with hypervigilance, enhanced startle reaction, and insomnia. Anxiety and depression are commonly associated with the above symptoms and signs and suicidal ideation is not infrequent. Excessive use of alcohol and drugs may be a complicating factor.

The disorder may be diagnosed if it occurs within six months of the trauma. In addition there must be repetitive intrusive recollection aspects of the traumatic event(s) are expressed.

2. Recurrent distressing dreams in which the content and/or affect of the dream are related to the traumatic event(s).

Note: In children, there may be frightening dreams without recognizable content.

3. Dissociative reactions (e.g., flashbacks) in which the individual feels or acts as if the traumatic event(s) were recurring. (Such reactions may occur on a continuum, with the most extreme expression being a complete loss of awareness of present surroundings.)

Note: In children, (Such reactions may occur on a continuum, with the most extreme expression being a complete loss of awareness of present surroundings.) Such trauma-specific reenactment may occur in play.

4. Intense or prolonged psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event(s).
5. Marked physiological reactions to reminders of the traumatic event(s).

C. One (or more) of the following symptoms, representing either persistent avoidance of stimuli associated trauma-specific reenactment may occur in play.

4. Intense or prolonged psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event(s).
5. Marked physiological reactions to internal or external cues that symbolize or resemble an aspect of the traumatic event(s).

C. Persistent avoidance of stimuli associated with the traumatic event(s), beginning after the traumatic event(s) occurred, as evidenced by one or both of the following:

1. Avoidance of or efforts to avoid distressing memories, thoughts, or feelings about

with the traumatic event(s) or negative alterations in cognitions and mood associated with the traumatic event(s), must be present, beginning after the event(s) or worsening after the event(s):

Persistent Avoidance of Stimuli

1. Avoidance of or efforts to avoid activities, places, or physical reminders that arouse recollections of the traumatic event(s).
2. Avoidance of or efforts to avoid people, conversations, or interpersonal situations that arouse recollections of the traumatic event(s).

Negative Alterations in Cognitions

3. Substantially increased frequency of negative emotional

or re-enactment of the event in memories, daytime imagery or dreams. Conspicuous emotional detachment, numbing of feeling, and avoidance of stimuli that might arouse recollection of the trauma are often present but are not essential for the diagnosis. The autonomic disturbances, mood disorder, and behavioural abnormalities all contribute to the diagnosis but are not of prime importance.

    or closely associated with the traumatic event(s).
    2. Avoidance of or efforts to avoid external reminders (people, places, conversations, activities, objects, situations) that arouse distressing memories, thoughts, or feelings about or closely associated with the traumatic event(s).

D. Negative alterations in cognitions and mood associated with the traumatic event(s), beginning or worsening after the traumatic event(s) occurred, as evidenced by two (or more) of the following:
    1. Inability to remember an important aspect of the traumatic event(s) (typically due

    states (e.g., fear, guilt, sadness, shame, confusion).
    4. Markedly diminished interest or participation in significant activities, including constriction of play.
    5. Socially withdrawn behaviour.
    6. Persistent reduction in expression of positive emotions.

D. Alterations in arousal and reactivity associated with the traumatic event(s), beginning or worsening after the traumatic event(s) occurred, as evidenced by two (or more) of the following:

to dissociative amnesia and not to other factors such as head injury, alcohol, or drugs).

2. Persistent and exaggerated negative beliefs or expectations about oneself, others, or the world (e.g., “I am bad,” “No one can be trusted,” ‘The world is completely dangerous,” “My whole nervous system is permanently ruined”).
3. Persistent, distorted cognitions about the cause or consequences of the traumatic event(s) that lead the individual to blame himself/herself or others.
4. Persistent negative emotional state

1. Irritable behaviour and angry outbursts (with little or no provocation) typically expressed as verbal or physical aggression toward people or objects (including extreme temper tantrums).
2. Hypervigilance.

    (e.g., fear, horror, anger, guilt, or shame).
  5. Markedly diminished interest or participation in significant activities.
  6. Feelings of detachment or estrangement from others.
  7. Persistent inability to experience positive emotions (e.g., inability to experience happiness, satisfaction, or loving feelings).

E. Marked alterations in arousal and reactivity associated with the traumatic event(s), beginning or worsening after the traumatic event(s) occurred, as evidenced by two (or more) of the following:
  1. Irritable behaviour and angry outbursts (with
  3. Exaggerated startle response.
  4. Problems with concentration.
  5. Sleep disturbance (e.g., difficulty falling or staying asleep or restless sleep).

E. The duration of the disturbance is more than 1 month.

F. The disturbance causes clinically significant distress or impairment in relationships with parents, siblings, peers, or other caregivers or with school behaviour.

G. The disturbance is not attributable to the physiological effects of a substance (e.g., medication or alcohol) or another medical condition.

(For specifiers, see DSM-5, p. 274.)

little or no provocation) typically expressed as verbal or physical aggression toward people or objects.
    2. Reckless or self-destructive behaviour.
    3. Hypervigilance.
    4. Exaggerated startle response.
    5. Problems with concentration.
    6. Sleep disturbance (e.g., difficulty falling or staying asleep or restless sleep).

F. Duration of the disturbance (Criteria B, C, D, and E) is more than 1 month.

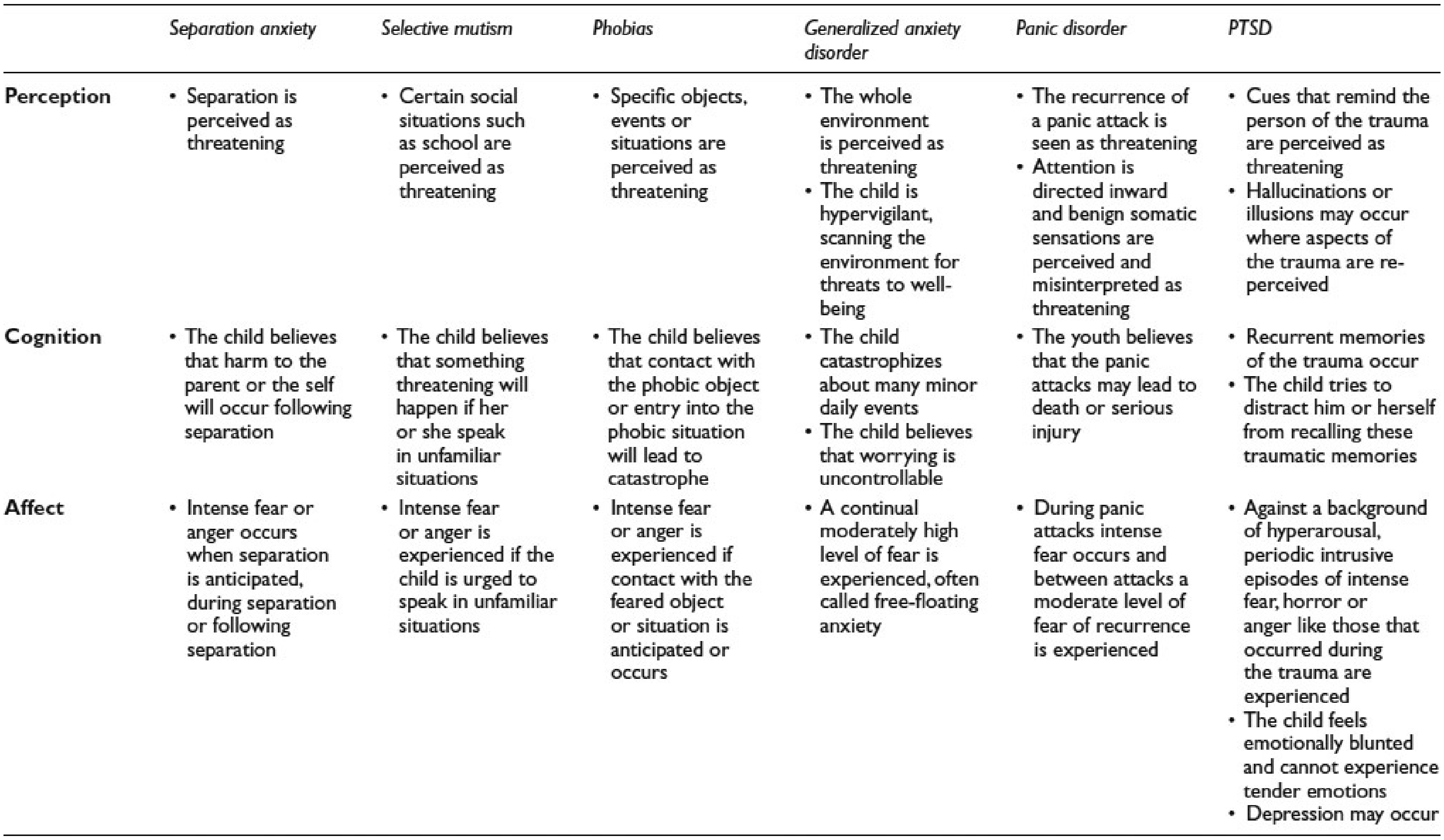
G. The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

H. The disturbance is not attributable to the physiological effects of a

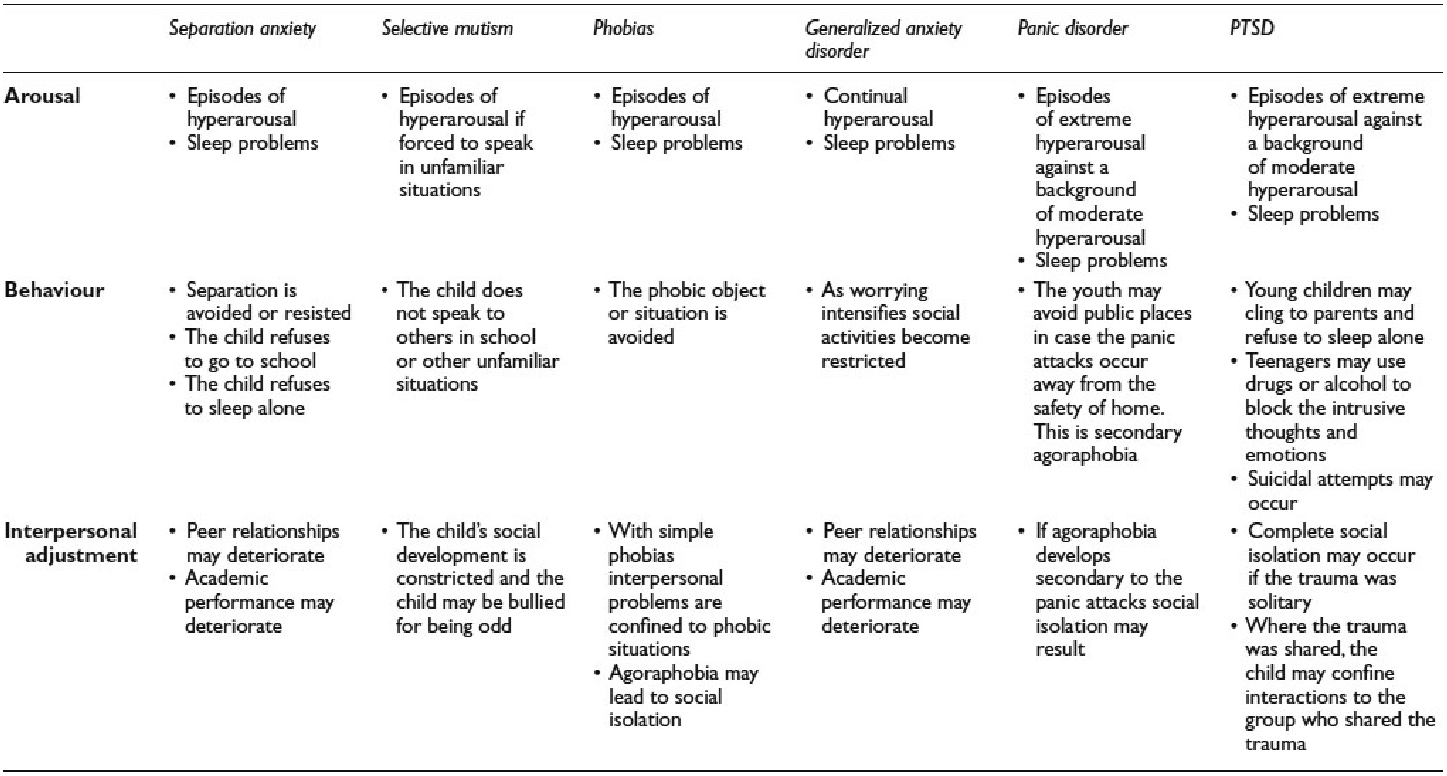
substance (e.g., medication, alcohol) or another medical condition.
(For specifiers, see DSM-5, p. 272.)

Note: DSM-5 diagnostic criteria are reprinted with permission from the *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition* (APA, 2013). Copyright © 2013 American Psychiatric Association. The material in the column headed ICD-10 is a summary of the clinical description and diagnostic guidelines for posttraumatic stress disorder. For the full official WHO clinical descriptions and diagnostic guidelines for this disorder see WHO, 1992, pp. 147–149.

Table 12.8 Clinical features of anxiety disorders in children



	Separation anxiety	*Selective mutism*	*Phobias*	*Generalized anxiety disorder*	*Panic disorder*	*PTSD*
Perception	• Separation is perceived as threatening	• Certain social situations such as school are perceived as threatening	• Specific objects, events or situations are perceived as threatening	• The whole environment is perceived as threatening • The child is hypervigilant, scanning the environment for threats to well-being	• The recurrence of a panic attack is seen as threatening • Attention is directed inward and benign somatic sensations are perceived and misinterpreted as threatening	• Cues that remind the person of the trauma are perceived as threatening • Hallucinations or illusions may occur where aspects of the trauma are re-perceived
Cognition	• The child believes that harm to the parent or the self will occur following separation	• The child believes that something threatening will happen if her or she speak in unfamiliar situations	• The child believes that contact with the phobic object or entry into the phobic situation will lead to catastrophe	• The child catastrophizes about many minor daily events • The child believes that worrying is uncontrollable	• The youth believes that the panic attacks may lead to death or serious injury	• Recurrent memories of the trauma occur • The child tries to distract him or herself from recalling these traumatic memories
Affect	• Intense fear or anger occurs when separation is anticipated, during separation or following separation	• Intense fear or anger is experienced if the child is urged to speak in unfamiliar situations	• Intense fear or anger is experienced if contact with the feared object or situation is anticipated or occurs	• A continual moderately high level of fear is experienced, often called free-floating anxiety	• During panic attacks intense fear occurs and between attacks a moderate level of fear of recurrence is experienced	• Against a background of hyperarousal, periodic intrusive episodes of intense fear, horror or anger like those that occurred during the trauma are experienced • The child feels emotionally blunted and cannot experience tender emotions • Depression may occur



	Separation anxiety	*Selective mutism*	*Phobias*	*Generalized anxiety disorder*	*Panic disorder*	*PTSD*
Arousal	• Episodes of hyperarousal • Sleep problems	• Episodes of hyperarousal if forced to speak in unfamiliar situations	• Episodes of hyperarousal • Sleep problems	• Continual hyperarousal • Sleep problems	• Episodes of extreme hyperarousal against a background of moderate hyperarousal • Sleep problems	• Episodes of extreme hyperarousal against a background of moderate hyperarousal • Sleep problems
Behaviour	• Separation is avoided or resisted • The child refuses to go to school • The child refuses to sleep alone	• The child does not speak to others in school or other unfamiliar situations	• The phobic object or situation is avoided	• As worrying intensifies social activities become restricted	• The youth may avoid public places in case the panic attacks occur away from the safety of home. This is secondary agoraphobia	• Young children may cling to parents and refuse to sleep alone • Teenagers may use drugs or alcohol to block the intrusive thoughts and emotions • Suicidal attempts may occur
Interpersonal adjustment	• Peer relationships may deteriorate • Academic performance may deteriorate	• The child's social development is constricted and the child may be bullied for being odd	• With simple phobias interpersonal problems are confined to phobic situations • Agoraphobia may lead to social isolation	• Peer relationships may deteriorate • Academic performance may deteriorate	• If agoraphobia develops secondary to the panic attacks social isolation may result	• Complete social isolation may occur if the trauma was solitary • Where the trauma was shared, the child may confine interactions to the group who shared the trauma

In all six of the anxiety disorders listed in Table 12.8, the beliefs about threat and danger are accompanied by an affective state, characterized by feelings of tension, restlessness and uneasiness. If the child is compelled to approach the feared stimuli, outbursts of anger may occur. This anger reflects the 'fight' aspect of the 'fight or flight' response. For example, children with separation anxiety may have aggressive tantrums if forced to remain at school without their parents. Similarly, selectively mute children may become oppositional if strongly urged to speak in school or other threatening situations. A similar display of anger may occur if children with water phobia are carried into a swimming pool by well-intentioned parents trying to teach them to swim. In PTSD, in addition to the affective experiences of uneasiness and tension, an affective experience of emotional blunting, arising from the child's attempt to exclude all affective material from consciousness may develop.

The patterning of arousal in anxiety disorders varies depending upon the frequency with which the youngster comes into contact with feared stimuli. With separation anxiety hyperarousal occurs only when separation is threatened. With selective mutism, hyperarousal only occurs when the child is strongly urged to speak in school or threatening situations. With specific phobias hyperarousal only occurs only in the presence of the feared object. With GAD, there is a pattern of ongoing continual hyperarousal. With panic disorder and PTSD there is a moderate level of chronic hyperarousal punctuated by brief episodes of extreme hyperarousal. These occur in panic disorder during panic attacks and in PTSD when memories of the traumatic event intrude into consciousness.

Avoidance behaviours characterize all anxiety disorders. With specific phobias, these may lead to only a moderate constriction in lifestyle. For example, a child may refuse to engage in sports or athletics or to ride a bicycle because of an injury phobia. However, with separation anxiety, selective mutism, GAD, panic disorder and PTSD, the avoidance behaviour may lead the youngster to become house-bound. With PTSD, alcohol or drug misuse may occur. Alcohol and drugs are used to reduce negative affect and suppress traumatic memories. This type of self-medication is discussed more fully in Chapter 15.

Interpersonal relationships are affected by different anxiety disorders in different ways. With simple phobias there may be minimal disruption, although conflict with parents, teachers or peers may occur where the youngster refuses to conform or co-operate with routine activities so as to avoid the feared stimuli. For example, parent–child conflict may occur if a child refuses to get in an elevator at a shopping mall because of claustrophobia. With separation anxiety, selective mutism, panic disorder, GAD and PTSD complete social isolation may occur and the youngster's peer relationships and school attendance may cease. A more detailed account of the assessment and treatment of these six types of anxiety disorders will be given later after a consideration of aetiological theories and the assessment, formulation and management of anxiety disorders generally.

Aetiological theories

Theories of anxiety may be divided into those which focus predominantly on biological variables and those that emphasize the role of psychological and psychosocial factors. A summary of some of the more important theories of anxiety and the treatment approaches associated with them is presented in Table 12.9.

Biological theories

Biological theories have addressed the roles of genetic and neurobiological factors in the aetiology of anxiety disorders.

The genetic hypothesis. The genetic hypothesis proposes that anxiety disorders develop where a person with an inherited vulnerability to anxiety is exposed to threatening or stressful environmental stimuli at critical developmental stages when they are primed or prepared to develop fears. Results of twin and family studies of anxiety disorders support the genetic hypothesis, with twin studies yielding moderate heritability estimates. For most measures of anxiety, about 30% of the variance is accounted for by genetic factors; about 20% by shared environmental factors, and about 50% by non-shared environmental factors (Gregory & Eley, 2007; Sakolsky et al., 2012; Zavos et al., 2013).

There is also support for the proposal that sensitivity to particular classes of stimuli emerge at particular developmental stages (DeSilva et al., 1977). For example, vulnerability to developing specific phobias and separation anxiety is highest during childhood, whereas vulnerability to social phobias, panic disorder, and GAD more commonly emerges in adolescence (Öst & Treffers, 2001; Seligman & Gahr, 2013).

There is considerable heterogeneity in the heritability of anxiety disorders associated with age, gender and whether anxiety is rated by parents or children (Zavos et al., 2013). Heritability increases with age, is greater for girls than boys, and anxiety rated by parents is more heritable than self-reported anxiety, suggesting that parents and children are rating different aspects of anxiety.

The genetic hypothesis also entails the view that a dysfunctional biological factor which underpins the process of regulating stress responses is genetically transmitted in families where anxiety disorders occur. Many candidate genes for anxiety disorders have been investigated; few have been identified; and where significant associations between candidate genes and anxiety disorders have been found, very few consistent replication studies are available. The search for candidate genes has focused in large part on those whose products affect neurotransmitters thought to be involved in the aetiology of anxiety disorders. Two candidate genes – which affect the serotonin and dopamine systems – deserve mention because consistent support has been found for the link between them and anxiety disorders (Zavos et al., 2013).

The short (rather than the long) allele variant of the 5-HTTLPR polymorphism, which regulates expression of the serotonin transporter gene (SLC6A4), is a risk factor for PTSD and significantly increases the chances of developing PTSD following trauma (Xie et al., 2009). In response to stress or trauma, people with the short allele variant of 5-HTTLPR show decreased serotonin reuptake, increased amygdala neuronal activity, and increased HPA axis reactivity. The amygdala is a brain structure within the limbic system (which includes the amygdala, hippocampus, insula and parts of the anterior cingulated cortex) located in the medial temporal lobes which subserves the processing of emotional information and memories. The HPA axis is a major part of the neuroendocrine system involving the hypothalamus, the pituitary gland located below the hypothalamus, and the adrenal glands (located on top of the kidneys) which controls stress reactions and other processes including the immune system, sexuality and digestion. At a behavioural level, these neurobiological processes associated with the short allele variant of 5-HTTLPR subserve increased attentional bias to threat, enhanced fear conditioning and stress sensitivity (Caspi et al., 2010). However, the short allele variant of 5-HTTLPR seems to be a general vulnerability factor for stress-related psychological disorders rather than a specific vulnerability factor for PTSD. For example, it is also a vulnerability factor for borderline personality disorder.

Table 12.9 Theories and treatments for anxiety

Theory	*Theoretical principles*	*Principles of treatment*

Biological theories	**Genetic theory**	Anxiety occurs when a person with an inherited vulnerability is exposed to threatening environmental stimuli at critical developmental stages.	Pharmacological or psychological interventions to help the person cope with a chronic disorder.
	Neurobiological hypotheses	Anxiety disorders are caused by lack of inhibition of the limbic system (especially the amygdala) by the pre-frontal cortex. This is associated with reduced efficiency of the serotonergic and GABA-ergic neurotransmission systems, and over-activity of the hypothalamic-pituitary-adrenal (HPA) axis leading to elevated cortisol levels.	Psychopharmacological treatment with selective serotonin reuptake inhibitors (SSRI) and benzodiazepines to increase the efficiency of the serotonergic and GABA-ergic neurotransmission systems.
Psychological theories	**Behaviourally inhibited temperament hypothesis**	A biologically based temperamental predisposition towards behavioural inhibition in unfamiliar situations renders children vulnerable to the development of anxiety disorders.	Children with a behaviourally inhibited temperament may be taught anxiety management strategies and exposed to novel, anxiety-provoking situations until they habituate to them.

General trait theory	A high level of the trait neuroticism predisposes people to and maintains anxiety disorders.	Children with high levels of neuroticism may be taught anxiety management strategies and exposed to anxiety-provoking situations until they habituate with them.
Anxiety-specific trait theories	High levels of anxiety-specific traits predispose people to and maintain anxiety disorders. Such traits include anxiety sensitivity, intolerance of uncertainty, fear of negative evaluation (which is linked to social phobia), and alexithymia (which is linked to PTSD).	Children with high levels of anxiety-specific traits may be taught anxiety management strategies which target their specific vulnerabilities and exposed to anxiety-provoking situations until they habituate with them.
Cognitive bias theory	Information-processing biases for threatening information predispose people to and maintain anxiety disorders.	Children with information-processing biases for threatening information may be taught anxiety management strategies which counter their Information-processing biases and exposed to anxiety-provoking situations until they habituate to them.
	Information-processing biases for threatening	Children with information-processing biases for threatening information may be taught anxiety

Cognitive bias theory	information predispose people to and maintain anxiety disorders.	management strategies which counter their Information-processing biases and exposed to anxiety-provoking situations until they habituate to them.
Coping strategy theory	Anxiety disorders are maintained by the use of maladaptive coping strategies including rumination, avoidance and suppression.	Children who use rumination, avoidance and suppression to cope with treat may be taught adaptive coping strategies and helped to use them when exposed to anxiety-provoking situations.
Psychoanalytic theories	In anxiety disorders, defence mechanisms are used to keep unacceptable impulses and moral anxiety about their expression from entering consciousness. The unacceptable feelings and related moral anxiety are transformed into neurotic anxiety and displaced onto a phobic object which symbolizes the object about which the unacceptable impulses were felt. In generalized	Individual psychodynamic psychotherapy in which the defence/hidden feeling/anxiety triangle of conflict is interpreted.

	anxiety disorders, the defences break down and the person becomes overwhelmed with anxiety as the unacceptable impulses are displaced onto all available objects.	
Behavioural theory	Through classical conditioning a person becomes anxious of a neutral stimulus that was present during a trauma. At critical stages in development young children are prepared to develop phobias to specific stimuli through classical conditioning one-trial learning. Classically conditioned anxiety responses previously neutral stimuli do not extinguish because the person's avoidant behaviour is negatively reinforced each time the previously neutral stimulus is avoided. Through incubation,	Behaviour therapy in which the person is exposed to anxiety-provoking situations (in vivo, virtually or imaginally) until habituation occurs, and is helped to tolerate anxiety evoked by exposure through learning relaxation or other anxiety management skills.

	classically conditioned anxiety responses are strengthened each time a person is briefly exposed to anxiety-provoking stimuli. That is, the person becomes afraid of the anxiety elicited by the anxiety-provoking stimulus.	
Cognitive theory	Anxiety disorders occur when threatening life events reactivate danger-oriented cognitive schemas formed early in childhood during threatening or traumatic experiences. These threat-oriented schemas contain core beliefs and assumptions about the dangerous nature of the environment or the person's situation and cognitive distortions such as minimizing safety-related events and	Cognitive therapy in which clients are trained to monitor situations where anxiety-related negative automatic thoughts and cognitive distortions occur and to engage in 'behavioural experiments' which challenge their validity.

	maximizing threat-related negative events. On a moment-to-moment basis, specific stimuli elicit threat-oriented negative automatic thoughts which lead to anxiety and avoidance. Parents socialize children through modelling and reinforcement to interpret ambiguous situations in a threatening manner and to cope with fear through avoidance behaviour.	
Systems theory	Family lifecycle transitions or stressful events precipitate the onset of anxiety disorders which are inadvertently maintained by patterns of family interaction where anxiety is reinforced and parental child-focused behaviour allows parents to avoid facing marital and personal issues.	Family work where parents learn to help the child manage anxiety.

A specific allele of the Val158Met polymorphism of the COMPT gene is a risk factor for panic disorder (Maron et al., 2010). The COMPT gene encodes an enzyme that breaks down dopamine, weakening its signal. People with panic disorder are more likely to have the COMPT allele associated with less efficient dopamine breakdown. The consequent higher levels of dopamine in the limbic systems of such people with panic disorder may subserve their increased sustained attention to salient stimuli, even when these stimuli are anxiety-provoking.

Implicit in the genetic hypothesis is the view that pharmacological or psychological interventions should aim to help the person cope with a chronic lifelong disorder. Research driven by the genetic hypothesis focuses on identifying the precise biological factors associated with deficits in threat perception that are genetically transmitted and the mechanisms of transmission.

Neurobiological hypothesis. The neurobiological hypothesis is that anxiety disorders (especially separation anxiety disorder, GAD, phobias and panic disorder) are characterized by neuroanatomical, neurotransmitter and neuroendocrine abnormalities in systems associated with threat-processing and fear. There is considerable support for this hypothesis from neuroimaging, psychophysiological and pharmacological studies, although current knowledge of these abnormalities is incomplete (Britton & Rauch, 2009; Khan et al., 2009; Martin et al., 2009; Zantvoord et al., 2013). Over-activity in the limbic system (especially the amygdala) which subserves the experience of fear and anxiety occurs in children with a behaviourally inhibited temperament or exposed to high levels of chronic stress. This leads to HPA-axis over-activity and chronically raised cortisol levels. This in turn compromises the development and functioning of the pre-frontal cortex which subserves executive functions such as planning and decision-making and inhibiting impulsive responses. Excessive activity in the limbic system is normally inhibited by the pre-frontal cortex. However, in anxiety disorders, communication between the limbic system and the pre-frontal cortex is impaired, probably due to prolonged exposure of the pre-frontal cortex to high cortisol levels. The lack of communication between the limbic system and pre-frontal cortex is associated with reduced efficiency of the serotonergic and GABA-ergic neurotransmission systems.

Antianxiety drugs increase the efficiency with which these systems operate. SSRIs such as fluoxetine (Prozac) target the serotonin system and benzodiazepines such as diazepam (Valium) target the GABA system. SSRIs have been shown to be effective alone or in combination with cognitive-behavioural therapy for some childhood anxiety disorders (Birmaher & Sakolsky, 2013). There is little evidence for the effectiveness of benzodiazepines for paediatric anxiety disorders. They are also addictive, and so long-term use for the treatment of anxiety disorders is not regarded as best practice.

Dopamine, noradrenaline, glutamate and other neurotransmitter systems may also be dysregulated in anxiety disorders, although their roles are less clearly understood. Genetic vulnerability to anxiety disorders involves genes the actions of which affect the efficiency of neurotransmission systems associated with anxiety, as was noted earlier in the discussion of genetic factors. Evidence from a small number of neuroimaging studies (mainly with adults) shows that psychological interventions, such as cognitive-behavioural therapy, normalize neurobiological functional abnormalities associates with anxiety disorders (Frewen et al., 2008).

Psychological theories

Psychological theories of anxiety disorders have been developed which propose that particular temperaments, traits, and cognitive biases render people vulnerable to developing anxiety disorders or maintain these disorders once they have developed. Psychological theories have also originated within the cognitive, behavioural, psychoanalytic and family systems traditions which explain the aetiology and treatment of anxiety disorders. Examples of these theories are as follows.

Behaviourally inhibited temperament hypothesis. This hypothesis attributes vulnerability to anxiety disorders to a biologically based temperamental predisposition towards behavioural inhibition (BI) in unfamiliar situations (Kagan et al., 2010). Children with BI show fearfulness, restraint, reticence and social withdrawal in novel situations including those involving unfamiliar people, places and objects. There is growing evidence to support moderate heritability for BI; to show that children with BI have a lower threshold for limbic and sympathetic nervous system arousal; and to show that BI is a risk factor for the development of anxiety disorders (Zantvoord et al., 2013). Anxiety disorders in BI children may be prevented by identifying them early and giving them anxiety management training such to allow them to cope better with unfamiliar situations.

General trait theory. Trait theory proposes that a high level of the trait neuroticism predisposes people to the development of anxiety disorders, and maintains these disorders once they develop. Personality traits are cross-situationally stable psychological characteristics determined by both genetic and environmental factors. In a meta-analysis Kotov et al. (2010) found that in adults all anxiety disorders were strongly associated with the personality trait neuroticism; all disorders except specific phobias were associated with low conscientiousness; and all anxiety disorders except simple phobias and GAD were associated with high levels of introversion. High neuroticism entails emotional instability and distress; low conscientiousness is the tendency not to follow through on plans; and introversion involves social withdrawal. These traits constitute three of the ‘Big-5’ personality traits which are neuroticism, extraversion, openness to experience, conscientiousness and agreeableness. Neuroticism and introversion are two of the traits in Eysenck’s trait theory of personality (Matthew et al., 2009). The main implication of this general trait theory is that children with high levels of neuroticism may be taught anxiety management strategies and exposed to anxiety-provoking situations until they habituate with them.

Anxiety-specific trait theories. Anxiety-specific trait theories propose that high levels of anxiety-specific traits predispose people to and maintain anxiety disorders. Such traits include anxiety sensitivity, intolerance of uncertainty, fear of negative evaluation (in the case of social phobia) and alexithymia (in the case of PTSD). These lower-order traits have been found, in adults, to correlate with specific anxiety disorders (Starcevic & Berle, 2006). Because much of this evidence comes from cross-sectional studies, it is not yet clear whether they are predisposing vulnerability factors, consequences or correlates of anxiety disorders. In a meta-analysis Naragon-Gainey (2010) found that, in adults, anxiety sensitivity correlated .4–.6 with all anxiety disorders and most strongly with panic disorder. Anxiety sensitivity refers to the tendency to fear somatic, cognitive and social anxiety-related symptoms. Intolerance of uncertainty is associated most strongly with GAD (Dugas et al., 2004). People with a high level of intolerance for uncertainty believe uncertainty is undesirable, should be avoided, and have difficulties functioning well in uncertain situations, especially where stressful events may occur. Fear of negative evaluation by others in social situations is correlated with social phobia (Weeks et al., 2005). Alexithymia (difficulty identifying and labelling feelings) is strongly correlated with PTSD (Frewen et al., 2008). Anxiety-specific trait theories entail the view that treatment of children with high levels of anxiety-specific traits should involve facilitating the development of anxiety management strategies which target specific vulnerabilities and exposure to anxiety-provoking situations until habituation occurs.

Cognitive bias theory. Cognitive bias theory proposes that information-processing biases for threatening information predispose people to developing anxiety disorders or maintains such disorders once they develop. Research from experimental psychopathology has consistently shown that children with anxiety disorders show a range of information-processing biases. They selectively attend to threatening stimuli (attention bias); they interpret ambiguous situations in a threating way (interpretation bias); they overestimate the co-occurrence between threat-related stimuli and negative outcomes (co-variation bias); and they search for information that confirms danger or threat (confirmation bias) (Muris & Field, 2013). Cognitive bias theory entails the view that interventions which specifically aim to modify cognitive biases for threatening information will alleviate anxiety. There is some preliminary evidence that training children to modify their attentional or interpretational biases can reduce anxiety (De Voogd et al., 2014; Lau et al., 2013).

Cognitive theory. According to Aaron T. Beck's cognitive explanation, anxiety disorders occur when threatening stressful life events activate danger-oriented cognitive schemas. It is proposed that these schemas are formed early in childhood through exposure to traumatic or adverse experiences and parenting practices that sensitized the individual to threat, danger and personal vulnerability and encouraged avoidant coping (Clark & Beck, 2010a). These threat-oriented schemas contain beliefs, attitudes and assumptions about threat and vulnerability relevant to personal safety such as ‘the world is dangerous, so I must continually be on guard’ or ‘my health is ailing so any uncomfortable somatic sensation must reflect serious ill health’. These threat-oriented schemas also direct the identification, interpretation and evaluation of experience and underpin anxiety-maintaining cognitive distortions such as minimizing safety-related events, maximizing threat-related negative events and catastrophizing about the future. These schemas dominate the biased, threat-sensitive way people with anxiety experience themselves in the world. On a moment-to-moment basis this tendency finds expression through the experience of danger-oriented negative automatic thoughts. For example, a young person with panic disorder who notices its heartbeat and respiration may have the negative automatic thought, ‘These are signs that I’m going to have a panic attack, I must be going crazy’; or a child with separation anxiety disorder who is leaving for school may think, ‘If I go to school my mother may become very ill. I must stay home and care for her.’ These negative automatic thoughts cause anxious arousal, which in turn motivates avoidant coping that alleviates anxiety and reinforces avoidant coping. According to cognitive theory, over time, the repetition of these types of micro-events in which ambiguous stimuli evoke threat-oriented negative automatic thoughts that elicit anxiety and motivate avoidance strengthen threat-oriented schemas and weaken personal control over anxiety, particularly the capacity to access more adaptive non-threat-oriented schemas.

Cognitive therapy helps young people challenge their negative automatic thoughts and underlying core beliefs, attitudes and assumptions about the dangerousness of the situations in which they feel anxiety (Stallard, 2009). This involves young people monitoring fluctuations in anxiety levels in threatening situations, accessing the negative automatic thoughts and beliefs that underpin these fluctuations, and challenging these thoughts and beliefs by generating safe rather than danger-oriented interpretations of situations and engaging in ‘behavioural experiments’ such as exposure to feared situations to check out if the catastrophes they fear actually occur. Cognitive therapy, like behaviour therapy described below, uses exposure procedures to treat anxiety disorders. However it explains the effectiveness of exposure procedures in terms of their effects on threat-oriented schemas rather than extinction of conditioned responses. Beck’s theory is supported by evidence which shows that anxiety is associated with a threat-sensitive cognitive style (Muris & Field, 2013), and also by the results of treatment outcome studies with children and adults which support the efficacy of cognitive-behavioural approaches to treatment (Manassis, 2013; Olatunji et al., 2010).

Behavioural theory. Behavioural theories of anxiety disorders, such as Mowrer’s (1939) two-factor theory, propose that anxiety and associated avoidance of feared objects, situations or memories are learned through the processes of classical and operant conditioning. With classical conditioning, it is proposed that a person becomes frightened of a neutral object, situation or memory that was present during a trauma or exposure to a very anxiety-provoking stimulus. The classically conditioned fear response to the previously neutral stimulus does not extinguish because the person's avoidant behaviour is negatively reinforced each time the previously neutral stimulus is avoided. In behavioural psychology, negative reinforcement is the term used to describe the strengthening of a response that leads to escaping from an aversive situation, such as the experience of anxiety.

Eysenck (1979) added the concepts of biological preparedness, incubation and constitutional vulnerability to Mowrer's theory. He proposed that as a result of evolutionary processes, people are biologically prepared at specific developmental stages to develop phobias through one-trial classical conditioning to specific classes of stimuli such as snakes, spiders, injuries and natural hazards (DeSilva et al., 1977). He also proposed that conditioned fears are strengthened through incubation, a positive feedback process, in which fear itself reinforces fear of the phobic stimulus. That is, each time a person is briefly exposed to or briefly recalls the feared stimulus, or the trauma associated with it, the conditioned fear is strengthened, because the person becomes afraid of the experience of anxiety. This whole process occurs outside of cognitive control. Finally, Eysenck proposed that some people are constitutionally vulnerable to developing anxiety disorders through having high levels of neuroticism and introversion, a hypothesis supported by meta-analytic data from personality trait studies of people with anxiety disorders (Kotov et al., 2010).

Behavioural treatment for anxiety disorders involves exposure to stimuli that elicit anxiety until habituation occurs and the anxiety response is extinguished (Moscovitch et al., 2009). Systematic desensitization and flooding (also referred to as implosion therapy) are two commonly used behavioural procedures. With systematic desensitization, a procedure developed by Joseph Wolpe (1969) in South Africa, clients in a deeply relaxed state are exposed to increasingly anxiety-provoking stimuli with progression to the next stimulus occurring once habituation to the previous one has occurred. With flooding (or implosion), a technique developed by Thomas Stampfl (Stampfl & Levis, 1968), clients are exposed for a prolonged period (often lasting a number of hours) to their most anxiety-provoking stimuli until anxiety responses are extinguished. With these exposure-based behavioural interventions, anxiety-provoking stimuli may be presented in vivo (real life), in virtual reality using computer simulations, or using mental imagery where the psychologist invites the client to close their eyes and imagine the feared object or situation. In all behavioural treatment programmes, prior to exposure clients are given detailed psychoeducation about their anxiety disorder, a formulation which explains how it developed and is maintained, the proposed exposure-based treatment plan, and training in relaxation skills or other coping strategies for use during exposure to help them tolerate exposure to the feared object or situation until their anxiety responses are extinguished. For separation anxiety disorders children are exposed to separation from parents, usually through supported attendance at school. For phobias, exposure is arranged to feared objects or situations. For panic disorder, clients are exposed to physiological sensations of hyperarousal (interoceptive exposure) by directing attention to their heart rate and respiration. If they have secondary agoraphobia, they are also exposed to public places that they typically avoid. For GAD, clients are exposed to feared objects and situations and are also helped to plan and practice worrying to desensitize them to their fear of uncontrollable rumination. For PTSD, clients are exposed to cues that evoke flashbacks or to traumatic memories. A large body of research supports the effectiveness of programmes that include exposure-based treatment programmes for adults and children with anxiety disorders (Manassis, 2013; Olatunji et al., 2010).

Psychoanalytic theories. In anxiety disorders, according to classical psychoanalytic theory, defence mechanisms are used to keep unacceptable impulses (anger, sadness, sexual impulses) or feelings and moral anxiety about their expression from entering consciousness. The unacceptable feelings and related moral anxiety become transformed into neurotic anxiety and expressed as an anxiety disorder. In phobias, the unacceptable impulse is repressed and the neurotic anxiety into which it is transformed is displaced onto a substitute object which symbolizes the original object about which the unacceptable impulses were felt. The key defence mechanism is *displacement*. Thus, when children say that they are frightened of a particular object or situation, the psychoanalytic hypothesis is that they are frightened about something else, but have displaced their fear from the original taboo object or event onto a more socially acceptable target. In Freud's presentation of his psychoanalytic hypothesis to explain the horse-phobia of Little Hans, he argued that the taboo fear was castration anxiety, and fear of the father was displaced onto horses (Freud, 1909a). In GAD, the defences break down; the person becomes overwhelmed with anxiety as the unacceptable impulses continually intrude into consciousness and seek expression; and anxiety about a taboo object is displaced onto every available target (McCullough-Vaillant, 1997).

Psychoanalytically based treatment is typically conducted within an individual non-directive play therapy format with young children and individual psychodynamic psychotherapy with adolescents. In treatment, the aim is to interpret the defence, the hidden feelings which are being repressed and the associated neurotic anxiety. McCullough-Vaillant (1997) refers to these three elements (the defence, the hidden feeling and the associated anxiety) as the triangle of conflict. During treatment the psychologist draws attention to the parallels between the way in which the youngster manages the current relationship with the therapist, the past relationship with the parents, and current relationships with other significant people in their lives such as their peers or teachers. McCullough-Vaillant (1997) refers to these three sets of relationships that are at the heart of transference interpretations, as the triangle of person. Interpretations of the triangle of conflict and the triangle of person should be offered tentatively, at a stage in the therapy when a strong working alliance has been established, and within the context of a coherent psychodynamic case formulation.

The idea of displacement is clinically useful when working with anxious children. In my clinical experience children worried about one thing may say that they are worried about another. However, there is no evidence to support the idea that all anxiety disorders represent displacement of anxiety associated with psychosexual developmental conflicts. There is some evidence that psychodynamic therapy is effective with children who have anxiety disorders (Fonagy et al., 2002).

Family systems hypotheses. Systemic theories propose that family interaction is central to the aetiology of anxiety disorders and this provides a rationale for family therapy as a treatment for anxiety (e.g. Bloch et al., 1994; Combrinck-Graham, 1986; Dadds et al., 1992; Ollendick & Ishikawa, 2013; Perlmutter, 1996). According to this position individuals develop anxiety disorders when they are socialized in families where parents (and other caregivers) elicit, model and inadvertently reinforce anxiety-related beliefs and behaviours.

During the pre-school years, where parents are insufficiently attuned to children's needs, children may develop insecure attachments to their parents, and this may lay the foundation for the development of an anxiety disorder, especially in genetically vulnerable children; children with behaviourally inhibited temperaments; and children whose parents have anxiety disorders. Trauma, stressful life events and family lifecycle transitions may precipitate the onset of anxiety disorders. These disorders may be maintained by patterns of family interaction that reinforce anxiety-related beliefs and avoidant behaviour.

Family belief systems that promote anxiety involve ideas such as unknown situations should be routinely interpreted as dangerous because its better to be safe than sorry; the future will probably entail many hazards, catastrophes and dangers; inconsequential events in the past will lead to dangerous threatening consequences at unexpected times in the future; fluctuations in autonomic arousal should be interpreted as the onset of full-blown anxiety attacks; minor symptoms are reflective of serious illness; and testing out the validity of any of these beliefs will lead to more negative consequences than continuing to assume that they are true. Through observing significant family members articulate these beliefs and engaging in family interactions premised on them, children may come to internalize these beliefs and develop a personal danger-saturated belief system.

Parental modelling of avoidant coping and inadvertent reinforcement of children's danger-saturated beliefs and avoidant behaviour are the main behaviour patterns that promote anxiety. When children observe parents coping with perceived threats by avoiding rather than confronting them, they adopt this coping strategy themselves. Such anxiety-related beliefs and avoidant coping is inadvertently reinforced when parents acknowledge their validity and do not challenge them.

Family lifecycle transitions, such as starting school, moving house, birth of a sibling and family stresses such as personal or parental illness may precipitate the onset of anxiety problems. In such situations, the child interprets the transition or stress as a major threat and copes by engaging in avoidant behaviour.

Parents, siblings and members of the extended family may all inadvertently maintain the child's anxiety-related beliefs and avoidance behaviour by sympathizing with the child's fears, accepting the child's danger saturated view of the situation, and condoning the avoidance behaviour as a legitimate coping strategy. The other family members' own danger-saturated belief systems and personal adjustment problems, if such are present, may prevent them from providing the child with opportunities to develop the skills required to confront and master feared situations. So, for example, in families where there are marital problems, parental depression, parental alcohol misuse or some other difficulty, the parents may avoid facing these difficulties and focus their attention instead on reassuring the child or arranging extensive medical investigations for anxiety-related somatic complaints. The patterns of family interaction that evolve in such situations may inadvertently maintain the child's anxiety and reinforce the parents' avoidance of their own marital or personal difficulties. Commonly family members are not consciously aware of the secondary gains associated with these problem-maintaining patterns of interaction.

Family therapy for children with anxiety disorders aims to support parents and children in creating opportunities within which children can develop the skills required to confront and master feared situations. This may involve helping parents and children interpret feared situations in less threatening ways; helping parents communicate with children in a less protective or critical way; showing parents how to coach children in relaxation skills and other anxiety management skills; showing parents how to help children expose themselves to feared situations; and arranging for parents to reinforce children for remaining in feared situations until anxiety subsides. Family therapy also aims to reduce the danger-oriented family culture by encouraging family members in their conversations and behaviour to focus more on bravery and positive accomplishments and less on danger and avoidance.

There is evidence that the parents of a majority of children with anxiety disorders have anxiety disorders themselves and that other types of psychopathology including depression are over-represented in the families of youngsters with anxiety disorders; that modelling and parenting style play an important role in the transmission of anxiety patterns from parent to children in at least some cases; that insecure attachment is a risk factor for anxiety disorders; that over-controlling/over-protective and rejecting/critical parenting maintains childhood anxiety disorders; that stressful life events and marital discord are associated with the onset of anxiety disorders in some anxious children; and that for pre-adolescent children the involvement of parents in cognitive-behavioural treatment leads to better outcomes (Boer & Lindhout, 2001; Ollendick & Ishikawa, 2013; Pine & Klein, 2008; Zavos et al., 2013).

Assessment

In addition to the routine assessment protocol outlined in Chapter 4, the symptomatology associated with the diagnostic criteria set out in Tables 12.2–12.7 should be covered. The assessment instruments listed in Table 12.10 may be used for this process. In the differential diagnosis of anxiety disorders in children it is vital to exclude thyrotoxicosis (over-activity of the thyroid gland), the symptoms of which mimic anxiety. However, in thyrotoxicosis there is a raised early morning pulse and T3 and T4 test results (which assess thyroxin levels) are typically abnormal (Brent, 2010). Referral to the family doctor or the paediatrician should be made to rule out thyrotoxicosis if it is suspected.

Aetiological factors to consider in the clinical assessment of cases where anxiety problems are a central concern are set out in Figure 12.1.

Predisposing factors

In cases of anxiety both personal and contextual predisposing factors may be present. Important personal predisposing factors to consider in the assessment of anxiety include possible genetic factors as indicated by a family history of anxiety. An inhibited temperament, neuroticism, anxiety sensitivity, intolerance for uncertainty fear of negative evaluation (in the case of social phobia), alexithymia (in the case of PTSD), low self-esteem and an external locus of control are other possible personal predisposing factors deserving consideration in assessment. Contextual factors that may predispose youngsters to developing anxiety problems include anxious attachment to parents, a critical/rejecting parenting style, an over-protective/controlling parenting style, exposure to parental anxiety, an anxiety-oriented family culture which privileges the interpretation of many environmental events as potentially hazardous, and a history of trauma including child abuse.

Table 12.10 Psychometric instruments for the assessment of anxiety disorders in children and adolescents

Construct	*Instrument*	*Publication*	*C*
	Anxiety Disorder Interview Schedule for Children-IV – Children and Parent Versions (ADIS-IV-C/P)	Silverman, W. & Albano, A. (1996). *The Anxiety Disorder Interview Schedule for Children-IV – Child and Parent Versions.* Boulder, CO: Graywind.	T
	Multidimensional Anxiety Scale for Children –	March, J. (2013). *Multidimensional Anxiety Scale for Children – Second Edition (MASC-*	T

	Second Edition (MASC-2)	*2)*. Toronto: Multihealth Systems.	T
DSM anxiety disorder diagnoses	Screen for Child Anxiety Related Emotional Disorders (SCARED-71)	Bodden, D.H.M., Bögels, S. M., & Muris, P. (2009). The diagnostic utility of the Screen for Child Anxiety Related Emotional Disorders-71 (SCARED-71). *Behaviour Research and Therapy, 47*, 418–425.	T
	Revised Child Anxiety and Depression Scale	Chorpita, B., Yim, L., Moffitt, C., Umemoto, L., & Francis, S. (2000). Assessment of symptoms of DSM-IV anxiety and depression in children: A Revised Child Anxiety and Depression Scale. *Behaviour Research and Therapy, 38*, 835–855. http://www.childfirst.ucla.edu/Resources.html	T
	Spence Children's Anxiety Scale	Spence, S. (1998). A measure of anxiety symptoms among children. *Behaviour research and therapy, 36*, 545–566. Nauta, M. H., Scholing, A., Rapee, R. M., Abbott, M., Spence, S. H., Waters, A. et al. (2004). A parent-report measure of children's anxiety: Psychometric properties and comparison with child-report in a clinic and normal sample. *Behaviour Research & Therapy, 42,* 813–839.	T

General anxiety	Revised Children's Manifest Anxiety Scale – Second Edition	Reynolds, C., & Richmond, B. (2008). *Revised Children's Manifest Anxiety Scale – Second Edition (RCMAS-2).* Toronto: Multihealth Systems.	T
	State Trait Anxiety Inventory for Children	Spielberger, C. (1973). *Manual for the State Trait Anxiety Inventory for Children.* Palo Alto, CA: Consulting Psychologists Press.	T
	Hamilton Anxiety Rating Scale	Clark, D., & Donovan, J. (1994). Reliability and validity of the Hamilton Anxiety Rating Scale in an adolescent sample. *Journal of the American Academy of Child and Adolescent Psychiatry, 33*, 354–360.	A
School refusal	School Refusal Assessment Scale	Kearney, C. A. (2002). Identifying the function of school refusal behaviour: A revision of the School Refusal Assessment Scale. *Journal of Psychopathology and Behavioural Assessment, 24*, 235–245.	

	Self-efficacy Questionnaire for School Situations	Heyne, D., King, N., Tonge, B., Rollings, S., Pritchard, M., Young, D., & Myerson, N. (1998). The Self-efficacy Questionnaire for School Situations: Development and psychometric evaluation. *Behaviour Change, 15*, 31–40.	T
Specific fears	Revised Fear Survey Schedule for Children	Ollendick, T. H. (1983). Reliability and validity of the Revised Fear Survey Schedule for Children (FSSC-R). *Behaviour Research and Therapy, 21*, 685–692.	T
Social anxiety	Social Phobia and Anxiety Inventory for Children	Beidel, S., Turner, S., & Fink, C. (1996). Assessment of childhood social phobia: Construct, convergent and discriminative validity of the Social Phobia and Anxiety Inventory for Children (SPAI-C). *Psychological Assessment, 8*, 235–240.	T
			T

	Social Anxiety Scale for Children – Revised (SASC-R) and Social Anxiety Scale for Adolescents (SAS-A)	LaGreca, A., & Stone, W. (1998). *Social anxiety scales for children and adolescents: Manual and instructions for the SASC, SASC-R, SAS-A*. Miami, FL: University of Miami, Psychology Department.	F
	Social Phobia and Anxiety Inventory for Adolescents	Clark, D., Turner, S., Beidel, D., Donovan, J., Kirisci, L., & Jacob, R. (1994). Reliability of the Social Phobia and Anxiety Inventory for Adolescents. *Psychological Assessment, 6*, 135–140.	T
Panic disorder and agoraphobia	Childhood Anxiety Sensitivity Index	Silverman, W., Fleisig, W., Rabian, B., & Peterson, R. (1991). Childhood Anxiety Sensitivity Index. *Journal of Clinical Child Psychology, 20*, 162–168.	T
	Panic Disorder Severity Scale for Children (PDSS-C)	Elkins, R. M., Pincus, D. B., & Comer, J. S. (2014). A psychometric evaluation of the Panic Disorder Severity Scale for Children and Adolescents. *Psychological Assessment, 26*, 609–618.	

Post-traumatic stress related anxiety	Clinician Administered PTSD Scale for Children (CAPS-C)	Nader, K., Blakem, D., Kriegler, J., & Pynoos, R. (1994). *Clinician Administered PTSD Scale for Children (CAPS-C).* Los Angeles: UCLA Neuropsychiatric Institute and National Centre for PTSD.
	Childhood PTSD Interview – Child Form	Fletcher, K. (1997). Childhood PTSD Interview – Child Form. In E. Carlson (Ed.), *Trauma assessments: A clinician's guide* (pp. 248–250). New York: Guilford.
	Child PTSD Interview	Pynoos, R., & Eth, S. (1986). Witness to violence: The child interview. *Journal of the American Academy of Child Psychiatry, 25*, 306–319.
	Child and Adolescent Trauma Survey (CATS)	March, J. (1999). Assessment of paediatric posttraumatic stress disorder. In P. Saigh & D. Bremner (Eds.), *Posttraumatic stress disorder* (pp. 199–218). Washington, DC: American Psychological Press.
	Change Sensitive PTSD Symptom Scale	March, J., Amaya-Jackson, L., Murray, M., & Schulte, A. (1998). Cognitive behavioural psychotherapy for children and adolescents with posttraumatic stress disorder following a single incident stressor. *Journal of the American Academy of Child and Adolescent Psychiatry, 37*, 585–593.

Children’s Revised Impact of Events Scale (CRIES)	Perrin, S., Meiser-Stedman, R., & Smith, P. (2005). The Children’s Revised Impact of Events Scale (CRIES): Validity as a screening instrument for PTSD. *Behavioural and Cognitive Psychotherapy, 33*, 487–498.	
Children’s Posttraumatic Stress Disorder Inventory	Saigh, P. (1989). The development and validation of the Children’s Posttraumatic Stress Disorder Inventory. *International Journal of Special Education, 4*, 75–84.	T
Child PTSD Symptom Scale	Foa, E., Johnson, K., Feeney, N., & Treadwell, K. (2001). The Child PTSD Symptom Scale: A preliminary examination of its psychometric properties. *Journal of Clinical Child Psychology, 30*, 376–384.	T T
Child Posttraumatic Stress Disorder Reaction Index	Fredrick, C., Pynoos, R., & Nader, K. (1992). *The Child Posttraumatic Stress Disorder Reaction Index*. Los Angeles: UCLA Department of Psychiatry and Behavioural Sciences.	

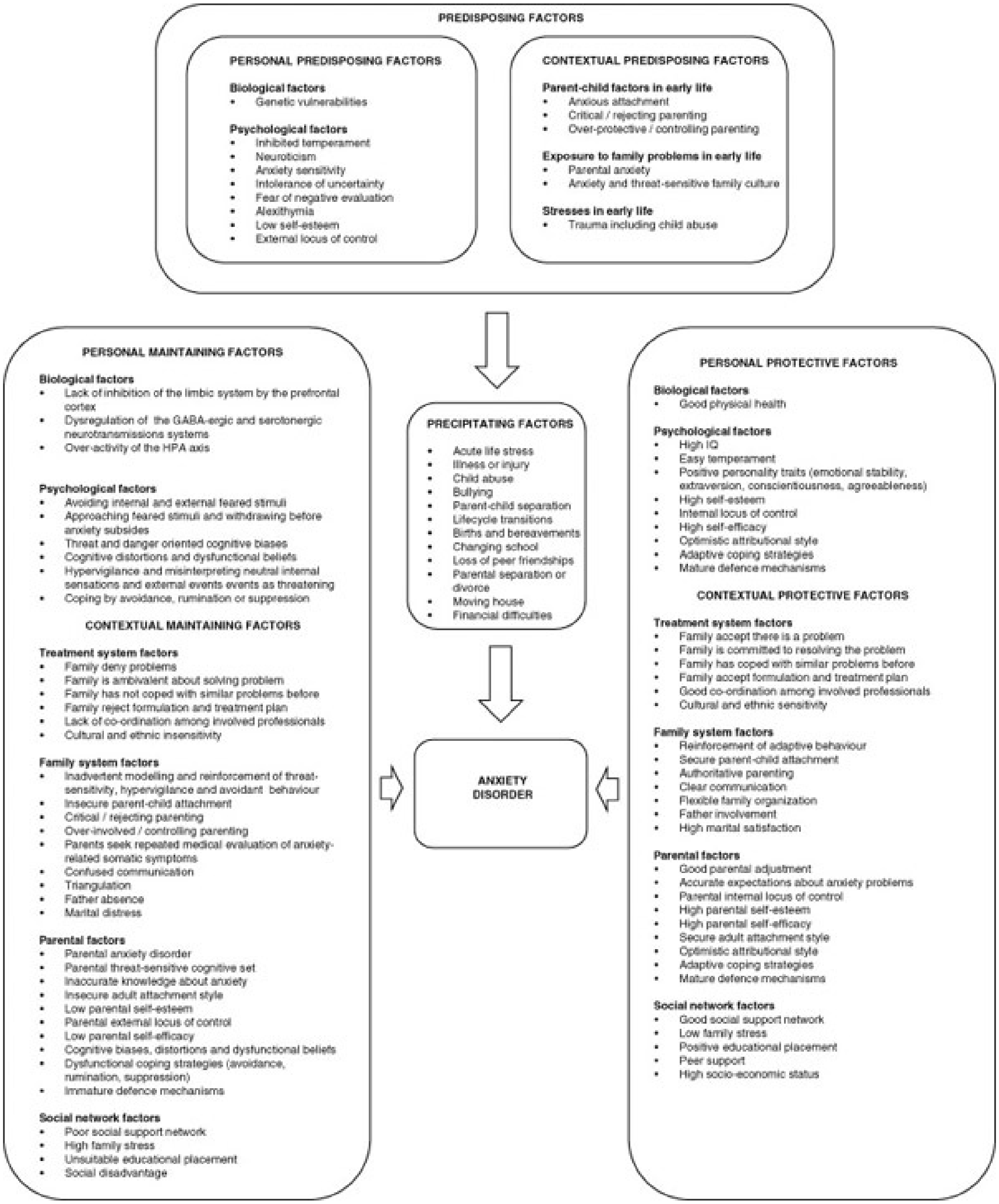


Figure 12.1 Factors to consider in childhood anxiety problems

Precipitating factors

Personal or family illness or injury may precipitate the onset or exacerbation of anxiety problems, since they may be perceived as threats to the child's security or health. In conditions such as gastrointestinal illness, which involve significant abdominal discomfort, there is an added complication. The organically based abdominal pain may precipitate the onset of anxiety and subsequently when the organic factors which led to abdominal discomfort are no longer operative, anxiety-related abdominal discomfort may remain. Children with anxiety-related discomfort may become anxious because they interpret their anxiety-related discomfort as reflecting a dangerous illness. This may lead to school refusal. Lifecycle transitions such as going to school for the first time or having a sibling leave home; stressful life events such as parental separation or divorce, moving house, changing schools, losing friends or increased financial hardship within the family; and separation from the primary caregiver for a significant time period may all precipitate the onset or exacerbation of anxiety problems because these events all threaten the predictability of the child's world. For school-going children both bullying by peers and victimization by teachers may precipitate anxiety problems, as may the occurrence of either intrafamilial or extrafamilial child abuse.

Maintaining factors

Personal and contextual factors may be involved in the maintenance of children's anxiety. At a personal level, ongoing avoidance of feared stimuli or a pattern of regularly approaching feared stimuli and then withdrawing before anxiety subsides may maintain or exacerbate the child's anxiety since these behavioural patterns prevent habituation to anxiety-provoking stimuli. A threat- and danger-oriented cognitive set, where neutral or ambiguous stimuli are interpreted as threatening, may also maintain anxiety problems. One important aspect of such a cognitive set is hypervigilance and frequent misinterpretation of non-threatening external events or internal bodily sensations as extremely hazardous. Coping through rumination about feared situations, avoidance of feared stimuli and suppression of anxiety-related thoughts may also maintain anxiety disorders. At a biological level, anxiety disorders may be maintained by lack of inhibition of the limbic system by the pre-frontal cortex, dysregulation of the serotonergic and GABA-ergic neurotransmission systems and over-activity of the HPA axis. However, in routine clinical practice these processes are not typically assessed.

At a contextual level, children's anxiety may be maintained by parents interpreting ambiguous situations as threatening in their conversations with the child and inadvertently reinforcing the child for avoidant behaviour. Such interaction patterns may be characterized by insecure parent–child attachment, critical/rejecting or over-protective/controlling parenting styles and confused communication. These parent–child interactions tend to maintain rather than resolve anxiety problems. Parents' insistence on repeated medical evaluation of anxiety-related somatic complaints such as abdominal pains or headaches may also maintain the child's anxiety. Parents may be particularly prone to these types of anxiety-maintaining patterns of interaction when they cope with personal or marital difficulties by avoiding dealing with them and focusing instead on the child's problems. Parents who are worried about their own health may displace their anxiety about this onto the child and express intense concern about the child's well-being. Parents who experience marital discord and who have unresolved conflicts about intimacy or power within the marital relationship may avoid discussing these conflicts but routinely argue about how best to manage their anxious child.

That is, they may become involved in a pattern of triangulation with the child. It is not unusual for such triangulation to involve intense interaction between the mother and child, with the father becoming increasingly peripheral as the problems progress.

Such patterns of parenting and family organization may be associated with parental anxiety and a threat-oriented cognitive set. Such parents may have an insecure adult attachment style, low self-esteem, low self-efficacy, external locus of control, cognitive biases, distortions and dysfunctional beliefs, immature defences and poor coping strategies. Parents may also become involved in problem-maintaining interactions with their children if they have inaccurate knowledge about anxiety and related psychological processes.

Anxiety may be maintained by high levels of stress, limited support and social disadvantage within the family's wider social system, since these features may deplete parents' and children's personal resources for dealing constructively with anxiety. Educational placements which are poorly resourced and where teaching staff have little time to devote to contributing to school-based anxiety management interventions may maintain anxiety problems.

Within the treatment system, a lack of co-ordination and clear communication among involved professionals including teachers, psychologists, paediatricians and so forth may maintain children's anxiety-related problems. It is not unusual for various members of the professional network to offer conflicting opinions and advice on the nature and management of anxiety problems to children and their families. These may range from viewing the child as physically ill with secondary anxiety problems deserving careful management to seeing the child as healthy but malingering and deserving a disciplinarian management. Where co-operation problems between families and treatment teams develop, and families deny the existence of the problems, the validity of the diagnosis and formulation or the appropriateness of the treatment programme, then the child's difficulties may persist. Parents' lack of experience in dealing with similar problems in the past is a further factor that may compromise their capacity to work co-operatively with the treatment team and so may contribute to the maintenance of the child's anxiety. Treatment systems that are not sensitive to the cultural and ethnic beliefs and values of the youngster's family system may maintain anxiety by inhibiting engagement or promoting dropout from treatment and preventing the development of a good working alliance between the treatment team, the youngster and his or her family.

Protective factors

The probability that a treatment programme for anxiety will be effective is influenced by a variety of personal and contextual protective factors. It is important that these be assessed and included in the later formulation, since it is protective factors that usually serve as the foundation for therapeutic change. Good health, a high IQ, an easy temperament, positive personality traits (including emotional stability or low neuroticism, extraversion and conscientiousness), high self-esteem, an internal locus of control, high self-efficacy and an optimistic attributional style are all important personal protective factors. Other important personal protective factors include mature defence mechanisms and functional coping strategies, particularly good problem-solving skills and a capacity to make and maintain friendships.

Where parents reinforce adaptive, courageous behaviour in children vulnerable to anxiety, this is an important protective factor. Within the family, secure parent–child attachment and authoritative parenting are central protective factors, particularly if they occur within the context of a flexible family structure in which there is clear communication and high marital satisfaction and both parents share the day-to-day tasks of childcare.

Good parental adjustment is also a protective factor. Where parents have an internal locus of control, high self-efficacy, high self-esteem, a secure adult attachment style, an optimistic attributional style, mature defences and functional coping strategies, then they are better resourced to manage their children's anxiety constructively. Of course, accurate knowledge and expectations about the management of childhood anxiety are also protective factors.

Within the broader social network, high levels of support, low levels of stress and membership of a high socio-economic group are all protective factors for children with anxiety problems. Where families are embedded in social networks that provide a high level of support and place few stressful demands on family members, then it is less likely that parents' and children's resources for dealing with anxiety-related problems will become depleted. A well-resourced educational placement may also be viewed as a protective factor. Educational placements where teachers have a clear understanding of anxiety-related problems and have sufficient time and flexibility to contribute to home–school anxiety management programmes contribute to positive outcomes for children with anxiety problems.

Within the treatment system, co-operative working relationships between the treatment team and the family and good co-ordination of multi-professional input are protective factors. Treatment systems that are sensitive to the cultural and ethnic beliefs and values of the youngster's family are more likely to help families engage with and remain in treatment, and foster the development of a good working alliance. Families are more likely to benefit from treatment when they accept the formulation of the problem given by the treatment team and are committed to working with the team to resolve it. Where families have successfully faced similar problems before they are more likely to benefit from treatment, and in this sense previous experience with similar problems is a protective factor.

Formulation

Salient features from the assessment should be combined into a formulation which specifies the principal anxiety problems and the factors that maintain these. Background predisposing factors and specific events that precipitated the onset or exacerbation of the anxiety problems should be noted. Protective factors in the case should also be listed. Examples of formulations are given in the penultimate paragraphs of some of the case studies set out in Boxes 12.1–12.6.

General treatment principles

Multi-systemic anxiety management programmes aim to alter maintaining factors and capitalize upon protective factors. They should include some or all of the following elements:

- psychoeducation about the nature of anxiety and its treatment
- training in monitoring symptomatology
- relaxation skills training
- cognitive restructuring
- rehearsal following observation of a model for coping with exposure to feared stimuli
- exposure to feared stimuli until habituation occurs
- reward systems to increase motivation to follow through on exposure
- family involvement in treatment
- computer-based interventions
- individual exploratory work
- school involvement in treatment where avoidance is school based
- liaison with other professionals, particularly paediatric medicine if there are anxiety-based somatic symptoms
- referral of parents for treatment of psychological and marital problems if appropriate.

A description of the principles of clinical practice for each of these elements follows. These descriptions are informed by the literature on effective treatments for anxiety disorders and on clinical experience (Albano & DiBartolo, 2007; American Academy of Child and Adolescent Psychiatry, 2007b, 2010; Bergman, 2012; Chorpita, 2006; Cohen et al., 2006; Essau & Ollendick, 2013; Kearney & Albano, 2007; NICE, 2005a, 2013d; Smith et al., 2010; Stallard, 2009).

Psychoeducation

In educating parents and children about anxiety it is useful to explain that anxiety has three different parts: thoughts about being afraid, physical feelings of being afraid and behaviour patterns that help the child avoid the situations of which they are frightened. This may then be elaborated as follows. It is the thoughts of being afraid and *the habit of seeing situations as dangerous* that is at the root of anxiety. A child who is afraid of dogs sees the dog as a danger because he automatically thinks of the possibility that the dog could bite him. There is, of course, an alternative. The dog could be seen as a child's best friend. If the child selected to see the dog this way, then the child would have no thoughts of being afraid. The physical feelings that follow from the dangerous thoughts are the second part of anxiety. The thoughts of being afraid of a dangerous situation lead to the fight or flight response, where the body gets ready to fight the danger or run from it. This physical part of anxiety (autonomic hyperarousal) involves adrenaline flowing into the bloodstream. The heart beats faster, the breath quickens and the muscles become tense. The faster breathing may lead to dizziness. The tense muscles may lead to headaches or stomach pains. Sometimes these physical changes, like a racing heartbeat, dizziness or pains are themselves frightening, and this leads to more physical changes. The thoughts of being afraid and the physical feelings that go with them lead the child to try to escape from the frightening situation or to avoid it. This is the third part of anxiety, the behaviour patterns that the child uses to avoid frightening situations. If the child is forced to face the situation without training in how to relax, calm down and cope, they may become so frightened that they kick and scream to try to escape. This is the 'fight' part of the fight or flight response. Parents and teachers usually try this forceful approach to help the child face the situation until the fear dies, but then back off when they see how distressing it is for the child. After that, they allow the child to get into a habit of avoiding the frightening situation. Unfortunately this makes the anxiety worse. What the child needs to learn to master the anxiety is to get into training so that he or she can handle rising anxiety and then go into the frightening situation and use all their training to cope with it. Treatment involves getting into training for handling anxiety and then facing the frightening situation until the anxiety dies. In the end, the only way to get rid of anxiety, dangerous thinking, anxiety feelings, pains, dizziness and avoidance behaviour patterns is to go into the frightening situations and stay there until the anxiety dies. Treatment cannot work the other way around. It is not possible to get rid of anxiety and then go into frightening situations. A useful resource is *Helping Your Anxious Child: A Step-by-Step Guide for Parents, Second Edition* (Rapee et al., 2008).

Monitoring

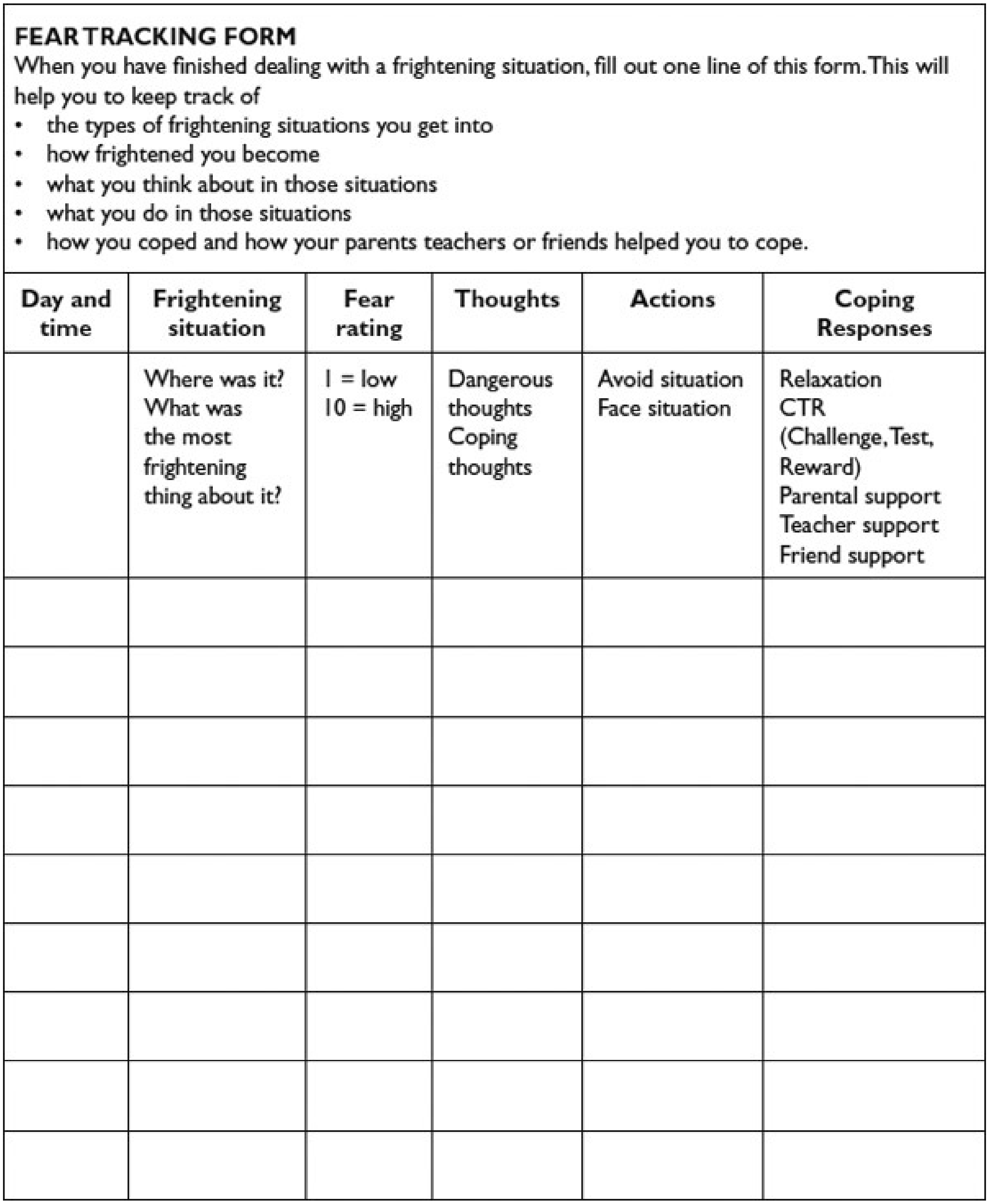
Monitoring cognitive, affective-somatic and behavioural aspects of anxiety and monitoring the use of various coping skills in frightening situations allows progress through treatment to be tracked by the child, the parents and the psychologist. At the simplest level the child may be trained to identify the affective and somatic experiences that contribute to their discomfort when they are in an anxiety-provoking situation. Each child has his or her own unique constellation of affective and somatic experiences that underpin discomfort. Some feel anxiety in their stomachs and develop abdominal pains. Others hyperventilate and become light-headed. Still others become restless and move about in an agitated way. Careful interviewing and the use of drawings, puppets and metaphors may be used to help children articulate the core affective-somatic component of their anxiety experience. Once this has been identified, children may be invited to rate the intensity of this experience on a 10-point scale when they enter a frightening situation. This scale may also be used during relaxation training to indicate the impact of the relaxation exercises on the child's affective-somatic state.

Children may be trained to identify anxiety-provoking cognitions (dangerous thoughts) which occur in frightening situations. In a family sessions, a series of situations that are ambiguous may be presented and family members may be invited to offer a range of possible threatening and non-threatening interpretations of these situations. This can open up a discussion about habits that family members have for interpreting situations in threatening or non-threatening ways and sensitize parents and children to the types of interpretations that they typically make. In programmes such as Coping Cat (Kendall et al., 2010), FRIENDS (Akiko Iizuka et al., 2013) and modular cognitive-behavioural therapy (CBT) for anxiety (Chorpita, 2006), there are workbooks for teaching cognitive self-monitoring skills (and other skills for anxiety management in children). They contain cartoons in which the protagonist appears in a range of ambiguous situations which are open to a wide variety of interpretations. The child is invited to write down (in the thought bubble over the cartoon character's head) what the character is thinking. The therapist uses these responses and the fact that there are less danger-oriented alternatives to help the child recognize the role of cognitive appraisal in generating anxiety. Once the child has grasped the idea that situations are open to a variety of interpretations, dangerous thoughts may be monitored along with fear ratings and description of the situations in which they occur. Later the child can be trained to *challenge dangerous thoughts*, to test out alternative interpretations and to reward themselves for doing so. The development of Challenge-Test-Reward (CTR) skills is the central focus in the approach to cognitive restructuring for anxiety which is described later.

Approach and avoidance behaviour in frightening situations may be monitored by inviting the child or parents to note which type of behaviour occurs in these situations. For example, with children who have a fear of the dark, whether children sleep in their own beds or their parents' beds may be recorded. For youngsters with agoraphobia, the distance they travel from the house each day may be recorded. For a child with a dental fear, the number of minutes they could tolerate sitting in the dentist's chair may be counted.

Coping responses, such as the use of relaxation skills; coping self-statements; self-reinforcement; support from parents, teachers or peers; or reinforcement from parents for approach behaviour may be monitored by asking the child or parent to name the coping strategy that was used in each situation where the child was exposed to the feared stimulus or anticipated such exposure.

A fear tracking form which allows situations, fear ratings, cognitions, approach or avoidance behaviours, and coping strategies to be monitored is presented in Figure 12.2. This form may be easily simplified by removing one or more columns and such simplified versions may be useful in the early stages of assessment and treatment, particularly with younger children.



FEAR TRACKING FORM

When you have finished dealing with a frightening situation, fill out one line of this form. This will help you to keep track of

- the types of frightening situations you get into
- how frightened you become
- what you think about in those situations
- what you do in those situations
- how you coped and how your parents teachers or friends helped you to cope.

Day and time	Frightening situation	Fear rating	Thoughts	Actions	Coping Responses
	Where was it? What was the most frightening thing about it?	1 = low 10 = high	Dangerous thoughts Coping thoughts	Avoid situation Face situation	Relaxation CTR (Challenge, Test, Reward) Parental support Teacher support Friend support

Figure 12.2 Fear tracking form

Exposure

A central underlying feature of all effective psychological treatments for anxiety is exposure. That is, in order to overcome the anxiety, the child must be exposed to the feared stimulus until the anxiety subsides and habituation to the anxiety-provoking stimulus occurs. This exposure may involve coping with a graded hierarchy of about 10 increasingly threatening stimuli for relatively brief periods or facing a highly threatening situation for a protracted period. When the child is exposed to a graded hierarchy of situations and is trained to cope with each situation by using relaxation skills to reduce anxiety, this is referred to as systematic desensitization. Flooding is the term used to describe treatment which involves prolonged exposure to highly feared stimuli. Desensitization sessions are far less stressful than flooding session, but usually a greater number of sessions are required for desensitization. The child may be exposed to the actual feared stimuli (in vivo); to virtual representations of feared situations using computer, video or audio stimuli; or to a cognitive representation of the feared stimulus (in imagination). In vivo exposure tends to be the most effective, although it requires more time and organization to set up.

Relaxation training

To manage anxiety associated with exposure to anxiety-provoking stimuli, children may be trained in a variety of coping skills, particularly relaxation, cognitive restructuring and self-reinforcement. Relaxation skills allow children to alter their level of physiological arousal. Relaxation skills may be taught by a psychologist or other professional, by a parent or a peer, or it may be learned from an audio-recording. When relaxation is taught to children by their parents under a psychologist's supervision, it has the added benefit of disrupting anxiety-maintaining parent–child interactions. A set of relaxation exercises which parents may teach to children is presented in Figure 12.3. Customized relaxation audio-recordings are a useful adjunct to direct instruction but relaxation audio-recordings without instruction are of little clinical value.

When coaching parents in relaxation instruction, model the process first by going through the exercises with the child while the parents observe. Use a slow, calming tone of voice and repetition of instructions as required to help the child achieve a relaxed state. Before and after the exercises check out with the child how relaxed he or she feels on a 10-point scale where 1 reflects complete relaxation and 10 reflects extreme anxiety. Most children will report that even on their first trial, they achieve some tension reduction. This should be praised and interpreted to the child and the parents as an indication that the child has the aptitude for developing and refining their relaxation skills. The parents may then be invited to instruct the child in completing the exercises daily and to praise the child for completing the exercises.

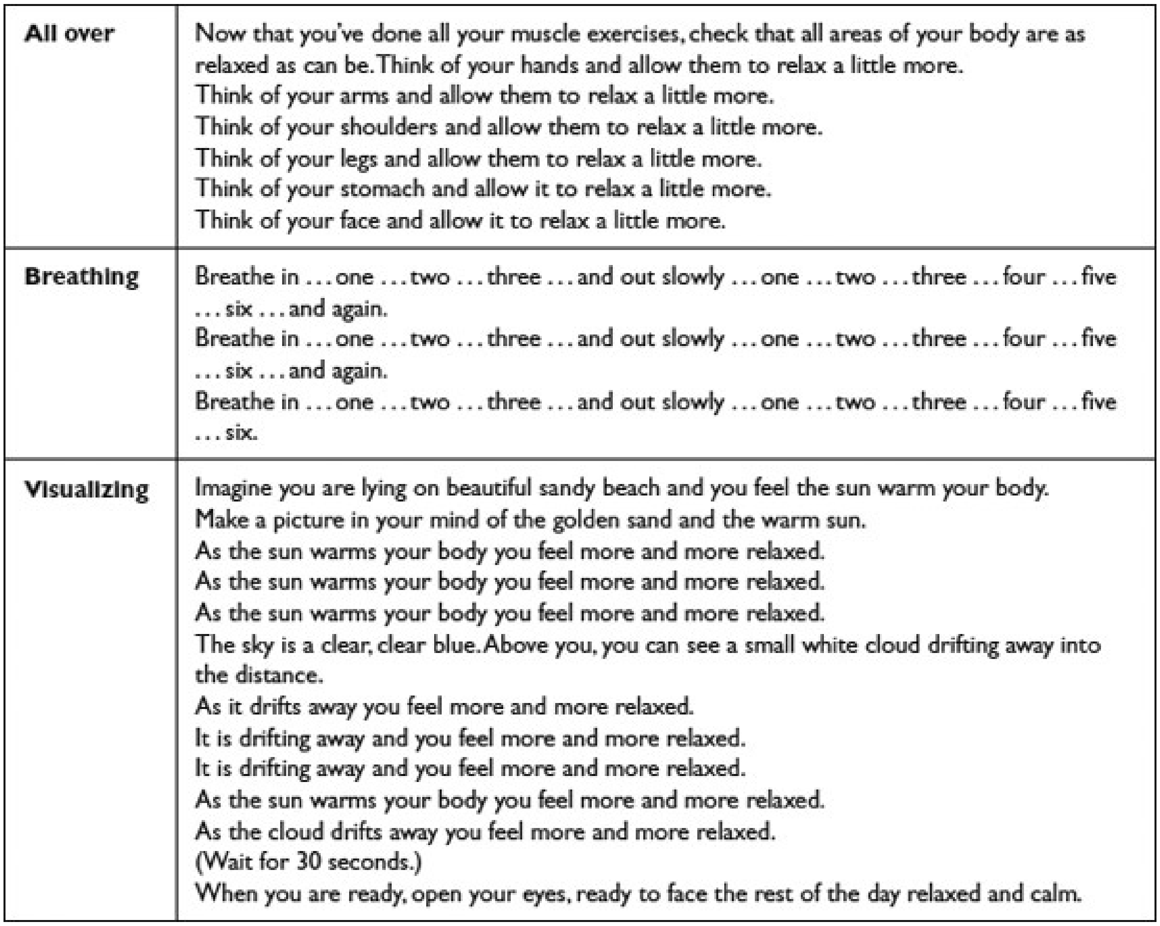
For a minority of children, the relaxation exercises lead to increased tension. This may occur because through completing the exercises the child is made aware of body tension that is normally ignored. Alternatively it may occur because focusing attention on somatic processes during the exercises induces anxiety. With youngsters who have had panic attacks, this is particularly common because they are sensitized to construing fluctuations in physiological functioning as signalling the onset of a panic attack. In such instances, work on only one or two muscle groups at a time and keep the training periods very short. Also request regular anxiety ratings (on a 10-point scale) from the child and when increases in anxiety occur, distract the child by asking him or her to engage in the visualization exercise described in Figure 12.3. With some such children it may be necessary to abandon the muscle relaxation exercises completely and concentrate on training them in visualization or focusing on an external repetitive calming visual or auditory stimulus as a means of attaining a relaxed state. (For some of my clients I have used such stimuli as music, children's hanging mobiles, candlelight and a bowl of goldfish!) The important thing is to find a routine that the child can reliably use to reduce the subjective sense of anxiety as indicated by their status on a 10-point anxiety rating scale.

RELAXATION EXERCISES

After a couple of weeks of daily practice under your supervision, your child will have developed enough skill to use these exercises to get rid of unwanted body tension.

- Set aside 20 minutes a day to do these relaxation exercises with your child.
- Try to arrange to be on good terms with your child when you do these exercises so your child looks forward to them.
- Do them at the same time and in the same place every day.
- Before you begin, remove all distractions (by turning off bright lights, mobile phones, TV, radio, etc.) and ask your child to loosen any tight clothes (like belts, ties or shoes).
- Ask your child to lie on a bed or recline in a comfortable chair with the eyes lightly closed.
- Before and after each exercise ask your child to breath in deeply and exhale slowly three times while saying the word 'relax' to him or herself.
- At the end of each exercise praise your child by saying 'Well done' or 'You did that exercise well' or some other form of praise.
- Repeat each exercise twice.
- Throughout the exercises speak in a calm, relaxed, quiet voice.

Area	Exercise
Hands	Close your hands into fists. Then allow them to open slowly. Notice the change from tension to relaxation in your hands and allow this change to continue further and further still so the muscles of your hands become more and more relaxed.
Arms	Bend your arms at the elbow and touch your shoulders with your hands. Then allow them to return to the resting position. Notice the change from tension to relaxation in your arms and allow this change to continue further and further still so the muscles of your arms become more and more relaxed.
Shoulders	Hunch your shoulders up to your ears. Then allow them to return to the resting position. Notice the change from tension to relaxation in your shoulders and allow this change to continue further and further still so the muscles of your shoulders become more and more relaxed.
Legs	Point your toes downwards. Then allow them to return to the resting position. Notice the change from tension to relaxation in the fronts of your legs and allow this change to continue further and further still so the muscles in the fronts of your legs become more and more relaxed. Point your toes upwards. Then allow them to return to the resting position. Notice the change from tension to relaxation in the backs of your legs and allow this change to continue further and further still so the muscles in the backs of your legs become more and more relaxed.
Stomach	Take a deep breath and hold it for 3 seconds, tensing the muscles in your stomach as you do so. Then breath out slowly. Notice the change from tension to relaxation in your stomach muscles and allow this change to continue further and further still so your stomach muscles become more and more relaxed.
Face	Clench your teeth tightly together. Then relax. Notice the change from tension to relaxation in your jaw and allow this change to continue further and further still so the muscles in your jaw become more and more relaxed. Wrinkle your nose up. Then relax. Notice the change from tension to relaxation in the muscles around the front of your face and allow this change to continue further and further still so the muscles of your face become more and more relaxed. Shut your eyes tightly. Then relax. Notice the change from tension to relaxation in the muscles around your eyes and allow this change to continue further and further still so the muscles around your eyes become more and more relaxed.



All over	Now that you've done all your muscle exercises, check that all areas of your body are as relaxed as can be. Think of your hands and allow them to relax a little more. Think of your arms and allow them to relax a little more. Think of your shoulders and allow them to relax a little more. Think of your legs and allow them to relax a little more. Think of your stomach and allow it to relax a little more. Think of your face and allow it to relax a little more.
Breathing	Breathe in ... one ... two ... three ... and out slowly ... one ... two ... three ... four ... five ... six ... and again. Breathe in ... one ... two ... three ... and out slowly ... one ... two ... three ... four ... five ... six ... and again. Breathe in ... one ... two ... three ... and out slowly ... one ... two ... three ... four ... five ... six.
Visualizing	Imagine you are lying on beautiful sandy beach and you feel the sun warm your body. Make a picture in your mind of the golden sand and the warm sun. As the sun warms your body you feel more and more relaxed. As the sun warms your body you feel more and more relaxed. As the sun warms your body you feel more and more relaxed. The sky is a clear, clear blue. Above you, you can see a small white cloud drifting away into the distance. As it drifts away you feel more and more relaxed. It is drifting away and you feel more and more relaxed. It is drifting away and you feel more and more relaxed. As the sun warms your body you feel more and more relaxed. As the cloud drifts away you feel more and more relaxed. (Wait for 30 seconds.) When you are ready, open your eyes, ready to face the rest of the day relaxed and calm.

Figure 12.3 Relaxation exercises handout for parents and young people

Some children find the scene described for the visualization exercise given in Figure 12.3 is not relaxing. In such instances, ask the child to describe an alternative relaxing scene such as being in a wood or on top of a mountain and use this as an alternative.

Biofeedback-assisted relaxation is as effective as progressive muscle relaxation in reducing arousal in adults and this is also probably the case with children (Stevens et al., 2007). Portable skin conductance biofeedback units are now widely available for this purpose. However, biofeedback equipment increases the cost of treatment. It also does not provide opportunities for enhancing parent–child relationships in the way that parent-assisted relaxation training does.

Cognitive restructuring

Cognitive restructuring or self-instructional coping skills are those required to reinterpret ambiguous situations in less threatening ways, to test out the validity of these alternative interpretations and to use self-reinforcement following such testing (Clark & Beck, 2010a; Stallard, 2009). In the earlier section on monitoring, methods for coaching the child to identify dangerous thoughts (threat-oriented interpretations of situations) were described. In CTR self-instructional training children are invited to Challenge these dangerous thoughts by asking themselves what the other possible interpretations of the situation are; to **T**est out what evidence there is for the catastrophic outcome and the other less threatening outcomes; and to **R**eward themselves for testing out the less catastrophic interpretation of the situation. So a child who has a dog phobia who has been coached in CTR cognitive restructuring coping skills may carry out this internal dialogue:

> 'He's dangerous and will bite me.' (dangerous thought)
> 'No – an alternative view is he wants to be my friend.' (**C**hallenge)
> 'I will not run away. There I didn't run and he didn't bite me. He did want to be friendly.' (**T**est)
> 'Well done.' (**R**eward)

CTR cognitive restructuring is derived from Beck's cognitive therapy for anxiety (Clark & Beck, 2010a). Where CTR skills are taught within a family session, parents may be trained to prompt the child to use these coping skills in frightening situations and to offer support and reinforcement for using them effectively. Where family members, particularly parents, have anxiety problems, they can be coached in avoiding passing on their habits of thinking dangerously to their children by using CTR skills themselves.

Modelling and rehearsal

Modelling and rehearsal may be used to help children learn anxiety management skills such as relaxation and CTR cognitive restructuring. The more like the child the model is, and the greater the esteem in which the model is held, the better. Because parents (or primary carers) are held in very high esteem and children identify with parents as part of the developmental process, parents may be coached in modelling good anxiety management skills for their children. Where parents have developed a threat- and danger-oriented family culture, helping them model good day-to-day anxiety management skills for their children may reduce the impact of the threat- and danger-oriented family culture on their children.

In addition to this family-based intervention, models who are similar to the child may be particularly effective in helping children develop anxiety management skills. Thus, a child who has had an anxiety problem but resolved it through using relaxation and cognitive restructuring skills during exposure is the ideal model. This type of modelling may be offered within a group therapy programme for children with anxiety problems which runs concurrently with family-based treatment sessions. Youngsters who have made progress in overcoming their fears may act as models for those who have not yet done so. Alternatively a video-recording of a child coping with exposure may be used as a model. This may be appropriate, for example, when dealing with anxiety associated with medical procedures. After observing the model the child may imitate the model's coping processes as a form of rehearsal.

Reward systems

To increase the child's motivation to follow through on the process of exposure to feared stimuli, a reward system is a key part of most anxiety treatment plans. The child may receive praise and encouragement for each episode of exposure along with some tangible reward. In addition, points may be given for each episode of exposure and accumulated to obtain items from a reinforcement menu. In developing such a system, a list of exposure situations should be drawn up and ranked in order of difficulty. Points may then be allocated to each situation with the greatest number of points being earned by coping with the most difficult situation. Alongside this list of exposure situations, a list of desired rewards may be drawn up and ranked in terms of their perceived value to the child. Then, the number of points required to earn each of these rewards on the reinforcement menu may be written opposite the item. The number of points required to earn items from the reinforcement menu should be such that the child may accumulate enough points to earn something off the reinforcement menu by successfully coping with three or four anxiety-provoking situations. This type of long-range reward system which yields weekly rewards should be used in conjunction with an immediate reward system where praise and prizes are issued for managing each successful exposure to a feared situation. Once reward systems are in operation, parents may be coached in how to complement them with systematic ignoring of worry-talk to help the child break the habit of ruminating about harmless events.

Family and school involvement

The chances of treatment gains being maintained are increased if the family are centrally involved in coaching the child in coping skills, managing the exposure process and implementing the reward system. This is because this process of family involvement challenges the family's threat-oriented culture if one is present; it disrupts family-based interactional patterns which maintain the child's threat-oriented cognitive set and avoidance behaviour; it makes full use of the parents problem-solving potential; and it provides an outlet for parents' desire to help their child recover. School involvement is important where the child experiences anxiety in school or going to school. School staff may assist with supporting and rewarding the child for exposure to feared school-based situations. This issue will be discussed more fully in the section on school refusal.

Computer-based interventions

Computer-based interventions that help children learn anxiety management skills may be included in treatment programme for anxious children. Two useful evidence-based CBT-based programmes are Philip Kendall's *Coping Cat DVD* (Kendall & Khanna, 2008) and Gary O'Reilly's (2014) *Pesky Gnats* CBT computer game for children. Both programmes help children learn self-monitoring, cognitive restructuring, relaxation and exposure skills.

Individual exploratory work

Youngsters with generalized anxiety disorders or multiple co-morbid anxiety disorders sometimes have a small set of core underlying fears that their basic needs for safety, security, and protection will not be met. These underlying fears may find expression in anxiety about multiple stimuli and situations. In cases where exposure and coping skills training is ineffective, individual exploratory work may be conducted to identify these core danger-related beliefs or fear schemas. This type of work may progress from an initial exploratory review of children's multiple expressed fears. Common themes may be sought by the therapist and the child in a collaborative way so that eventually core underlying fears are identified. Drawing, art work, play and other media may be used to help youngsters conduct such explorations. This type of work may provide clearer targets for exposure work and for the use of challenge, test and self-reward skills.

Liaison with other professionals

Where anxiety-based somatic complaints (such as abdominal pains, headaches and dizziness) have led to involvement of medical professionals, liaison with these colleagues is vital so that the child and the family receive a unified message about the most useful way to conceptualize the somatic symptoms and the best way to manage them (Blagg, 1987). Difficulties usually occur when the paediatric physician's report indicates that there is no organic basis for the child's abdominal pains or headaches and the parents and child interpret this to mean that the child's experiences are imaginary or the child's reports are factitious. One way to handle this is to meet jointly with the paediatrician, the child and the parents. Then the psychologist and paediatrician may jointly explain that abdominal pains, headaches and dizziness are all distressing somatic manifestations of anxiety which arise from autonomic nervous system hyperarousal. They are in colloquial terms real, not imaginary. Routine medical investigations such as physical examination, blood tests or X-rays are not designed to detect autonomic hyperarousal. They are designed to detect intestinal obstructions, lesions, tumours and disease processes which also cause abdominal pains and headaches. The negative results of the medical tests indicate that intestinal obstructions, lesions, tumours and disease processes were not detected. Recurrent abdominal pain will be discussed further in Chapter 14.

Concurrent referral of parents

Referral for concurrent treatment of parental psychological problems (such as anxiety or mood disorders) may be necessary in some cases, particularly where parents' personal difficulties contribute to the maintenance of their children's anxiety problems.

Treatment of specific anxiety disorders

The treatment programmes for specific types of anxiety disorders outlined here are premised on the general principles outlined in the previous section.

Management of separation anxiety and school refusal

Cases of separation anxiety are typically referred when the child refuses to attend school (Blagg, 1987; Eisen & Schaefer, 2007; Heyne & Rollings, 2002; Heyne & Sauter, 2013; Kearney & Albano, 2007; Schneider & Lavallee, 2013). The child's underlying belief when separation anxiety occurs is that a catastrophe will occur if the parent and child are separated, and this may lead to the parent or the child or both being harmed. This theme may preoccupy the child when faced with the prospect of separation and also recur as a theme in nightmares. Some children experience intense episodes of separation anxiety when they awake from such nightmares and ask to sleep with their parents or siblings. When separation is anticipated or threatened, pronounced hyperarousal of the autonomic nervous system may occur resulting in tachycardia, stomach aches, headaches, nausea and vomiting. In some instances children may faint. These physical symptoms commonly lead to many visits to the family doctor and occasionally to paediatric investigations. Children may feel misunderstood and disbelieved when such investigations fail to identify a discrete organic cause for these somatic complaints. Children and parents may interpret such findings to mean that the abdominal pains and headaches are being construed by the medical team to be either imaginary or factitious.

If physically forced to separate from the parent, the child usually becomes tearful and may cling to the parent or try to prevent separation by, for example, locking the car doors if the child has been driven to school. Attempts to force the child to separate may also lead to aggressive tantrums, kicking, screaming and other dramatic displays of anxiety. Commonly such displays result in the child being allowed to remain with the attachment figure and so the child's avoidance behaviour is negatively reinforced, thus making it more probable that it will recur. A number of such incidents will typically have occurred before the child is referred for psychological consultation. In other cases, the children will separate from the parents and go to school but be returned home when he or she appears to be ill with abdominal pains and headaches.

The management of separation anxiety and school refusal is complicated by the fact it may often begin when the child has a viral condition. Thus, parents and involved professionals may have difficulty interpreting the degree to which initial somatic complaints and those that occur during relapses have a viral basis or are due to anxiety or a combination of both. Also, simple formulations of the child's behaviour as a reflection of organic illness or misbehaviour may lead to polarization among parents and involved professionals. Such polarization makes it difficult for parents and professionals to co-operate in helping the child return to school and manage the anxiety.

It is important to mention that not all cases of school refusal reflect separation anxiety. When school refusal occurs in 5 or 6 year olds at the beginning of primary school, it is most commonly associated with separation anxiety. When school refusal occurs at 11 or 12 years of age at the transition to secondary school, both separation anxiety and other factors may be involved. For instance the child may fear some aspect of the school experience such as being bullied by peers, being victimized by teachers, entering into an unknown environment, academic or athletic failure and so forth. Later in adolescence, if school refusal occurs it may reflect separation anxiety, avoidance of particularly threatening situations within the school, or the onset of other psychological problems such as depression, eating disorders or psychosis. Where a child refuses to go to school all of these areas deserve careful assessment.

The most effective available treatment for school refusal is a behavioural problem-solving approach which involves all significant members of the child's social network including parents, teachers and in some instances peers. This method, which is successful in over 90% of cases, involves an initial thorough assessment of factors associated with the child, the family and the school, and the wider professional system that may be contributing to school non-attendance. A framework for assessing such factors is set out in Figure 12.4.

Child-related factors include separation anxiety; depression; other psychological adjustment problems; and physical ill health, notably viral infections. Children may also refuse to go to school because of fear of specific events at school. Children with learning difficulties and attainment problems may develop a fear of academic failure and this may underpin their school refusal. Children with physical disabilities or physical co-ordination problems which lead to poor performance in athletics may refuse to go to school because of their fear of athletic failure. Children with physical characteristics about which they are embarrassed such as delayed physical maturity or obesity may refuse to go to school because of fears of being taunted by peers during athletics because of their physical characteristics.

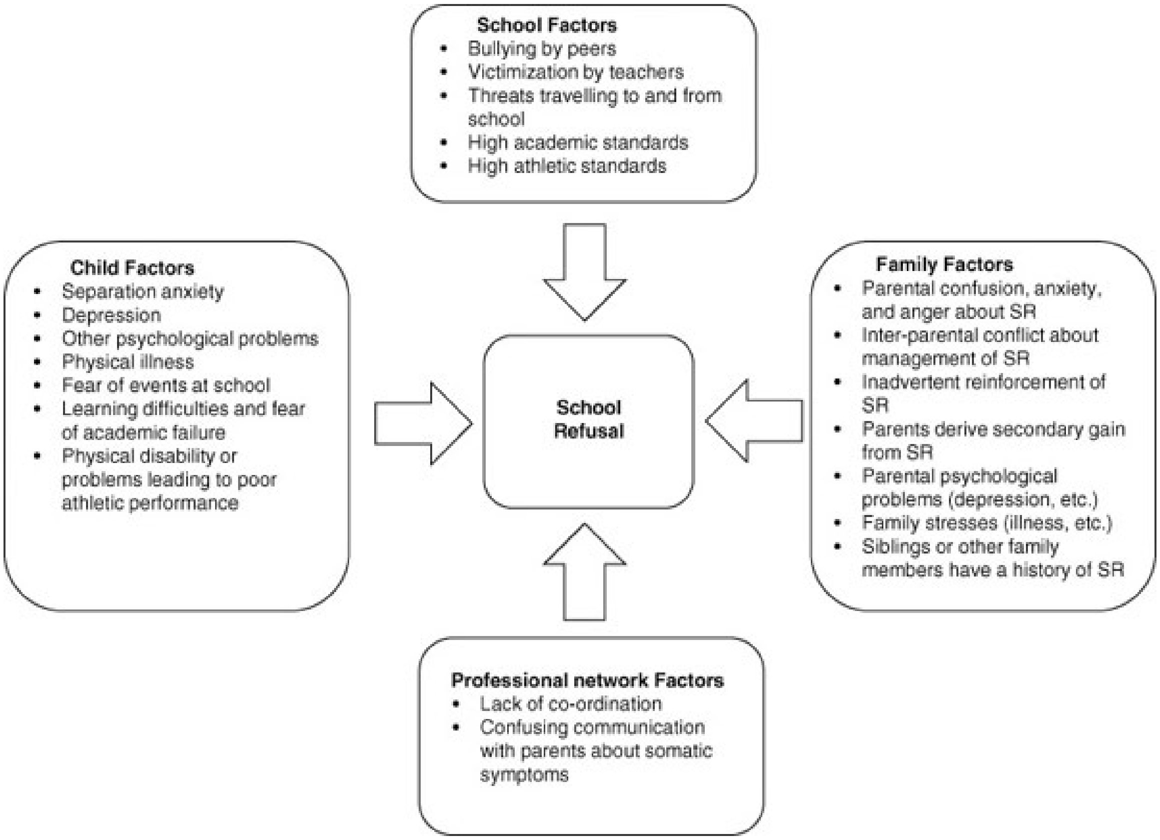


Figure 12.4 Factors to consider in the assessment of school refusal

Family factors that may contribute to school refusal include parental confusion, anxiety or anger over the meaning of the child's school refusal and related somatic complaints and parental conflict about the management of the situation. Parents may inadvertently reinforce school refusal by insisting on school attendance but relenting when the child escalates his or her protests to a dramatic level. Parents may mismanage school refusal because they derive secondary gains from the child staying at home. For example, the child may provide the homemaker (usually the mother) with companionship. Parents may also mismanage school refusal because parental psychological adjustment problems may compromise their capacity to manage the child's difficulties. Such parental problems may include anxiety, depression, substance misuse or learning difficulties. Wider family stresses such as bereavement, unemployment, separation, birth of a child or moving house may place such demands on parents that they have few personal resources remaining to help their child develop a pattern of regular school attendance. Children from families in which siblings have a history of school refusal may develop school refusal themselves by imitating their older siblings' behaviour.

School-based factors which may contribute to the development of school refusal include bullying by peers, victimization by teachers, threatening events occurring while travelling to or from school, poor academic performance and poor athletic performance.

Important factors in the wider professional system which may contribute to school refusal include poor co-ordination among members of the professional network in the management of the child's school refusal and poor communication between these professionals and the family.

The assessment of these factors should involve interviews with the child, the parents, the child's teachers and involved professionals. Such professionals may include the teacher, family doctor, paediatrician, school doctor, educational or school psychologist, and statutory school attendance officers. The School Refusal Assessment Scale and the Self-Efficacy Questionnaire for School Situations which are listed in Table 12.10 may be useful adjuncts to these interviews. Psychometric assessment of the child's abilities, attainments and symptomatology, where necessary, using appropriate instruments described in Chapter 8 may be conducted.

From this information, factors that predisposed the child to develop school refusal may be identified. Those factors that precipitated the occurrence of the episode of school refusal may be pinpointed. Finally, factors that are currently maintaining the condition may be clarified. An example of such a formulation is given in the penultimate paragraph of the case described in Box 12.1. When presenting such a formulation, it may be useful to also offer an explanation of the cognitive, affective-somatic and behavioural components of anxiety as outlined in the earlier section on psychoeducation.

Where separation anxiety is present, the next step involves explaining to the child, parents and teacher that the somatic symptoms (headaches and stomach aches) and the associated worries that cause them can only be resolved by children proving to themselves that they are brave enough to attend school and tolerate the anxiety and discomfort that it causes. It should be pointed out that a month or two of regular school attendance will resolve most of these symptoms. However, attempts to resolve the anxiety and somatic complaints first and then return to school will actually make the condition worse, since the child will not overcome the fear that cause these symptoms without facing the feared situation; that is, going to school.

Where factors at school such as bullying, victimization or academic failure are contributing to the school refusal these issues must be altered before return to school can be arranged. With bullying or teacher victimization, the bullies or teachers must be confronted and subsequently monitored so that a recurrence will not occur. With academic failure, additional remedial tuition may be provided. Where wider family factors such as parental psychological adjustment problems are a concern, referral to an appropriate agency for concurrent treatment may be arranged.

With this groundwork laid, the precise details of a return-to-school programme may be planned. This should specify the date and time at which the child will return, whether the child will have an immediate or gradual return building up from a few hours a day to a full to day over a period of a week or two, who will escort the child to school, who will meet the child at school, which peers will be appointed as buddies to make the child feel welcome, and which teacher will act as a secure base for the child if he or she experiences anxiety while in school. The child will require some opportunity to rehearse precisely how the return to school will be managed and to plan how he or she will cope with all major difficulties that may occur.

In addition to this return-to-school programme a reward system should be set up to give the child an incentive to tolerate the anxiety that will inevitably be experienced during the first few days at school. The reward system should allow the child to earn a concrete daily reward that is received immediately following school each day and a point system which allows the child to accumulate points that may be used to obtain a more substantial reinforcer each week.

The mornings following holidays, illnesses and weekends are times when relapses are most likely, and specific plans for arranging an escort to school and a contingency management programme on those occasions need to be made to prevent relapses from occurring. Ideally the child should be accompanied to school and received by peers or a class teacher on arrival and rewards given for managing any separation anxiety experienced on such occasions.

Selective mutism

Selective mutism, where the child is mute in social situations such as the school or peer group but speaks to a small circle of people, usually family members, may be a developmental precursor of social phobia (Bergman, 2012; Carr, 1997; Freeman et al., 2004; Sage & Sluckin, 2004; Viana et al., 2009). Selective mutism responds well to family-based behavioural treatment, where the child and a family member with whom the child will speak have planned conversations in those physical environments where the child is usually mute, such as the empty school classroom. Then, over a series of planned graded steps, people in whose presence the child is normally mute such as teachers and peers join the child and family member who are conversing in the physical environment where the child is usually mute. Once the child can converse with the family member in the presence of peers and teachers, peers and teachers gradually join in with the child and family member's conversation. In the final steps of the programme, the distance between the child and the family member is increased so that eventually the child can converse with teachers and peers with the family member outside the classroom door. In the last step of the programme children ask the family member, in the presence of the teacher and peers, to leave the school grounds and return to collect them at the end of the school day.

Phobias

The Revised Fear Survey Schedule listed in Table 12.10 is useful for identifying specific fears. When it is clear that the child's anxiety is confined to a specific group of stimuli or situations such as the dark, particular animals, dental treatment or a specific medical procedure, the child and the parents may be given an explanation of the cognitive, affective-somatic and behavioural components of anxiety. If no clear precipitating event caused the phobia, it is sufficient to say that being frightened of potentially dangerous situations is a good survival skill but that for some children it becomes over-developed and generalizes to situations which are not dangerous for reasons we do not understand. These fears become self-perpetuating when children enter feared situations briefly and then withdraw before their anxiety has reached a peak and begun to subside. The next time the same situation will be even more frightening for them. Treatment following from this understanding of phobic anxiety involves exposure to feared situations until anxiety subsides (Cowart & Ollendick, 2013).

For some phobias, for example needle phobias, it may be convenient to show the child a brief edited video-recording of another child successfully overcoming their phobia using systematic desensitization. This modelling process may help the child engage in systematic desensitization with increased confidence.

Children may be offered the choice of flooding or systematic desensitization as potential treatment options. In both treatments children need to understand that they will be required to *confront their fear until it dies*. They also need to understand that this confrontation will not occur until they have learned the skills necessary to manage the anxiety they will feel in the frightening situation. The pros and cons of flooding versus systematic desensitization need to be explored with children and their parents. On the positive side flooding is a relatively brief treatment and may involve a single 3-hour session. However it may be quite distressing. Systematic desensitization is typically far less distressing. However, it is a prolonged treatment and may require six or eight sessions.

Where children and parents opt for systematic desensitization, they first work with the psychologist to develop a hierarchy of frightening situations from the most frightening to the least frightening. The hierarchy should contain about 10 steps. For darkness phobia, the hierarchy may include in vivo situations such as lying in bed in the dark with the door open and the landing light on. It may also include imaginal situations such as imagining lying in bed with the light out. Gradations may be included in the hierarchy. For example, lying in bed with the landing light on and the door fully open may be one feared situation. A more frightening gradation of the same situation may be lying in bed with the landing light on and the door half open.

Once the hierarchy has been established, relaxation and coping skills training (as described in the section on general treatment principles) may be conducted. Parental involvement is very useful, particularly in supervising home-based practice. If it is feasible, children may be offered opportunities to observe a live or videotaped model using relaxation and coping skills to manage anxiety in situations similar to those in their hierarchy of frightening situations. Once this groundwork has been laid, a series of sessions are devoted to exposing the child to the feared situations in the hierarchy while in a relaxed state and monitoring their anxiety level on a 10-point scale. If children's anxiety increases noticeably while they are in a frightening situation, they should be prompted to use their relaxation skills and self-instructional skills to manage the anxiety and reduce it to a tolerable level. Social reinforcement should be offered for all efforts to master each of the steps in the hierarchy. In addition a reward system may be used so that a certain number of points are earned for mastering each step in the hierarchy. These points may be accumulated and exchanged for an item from a reinforcement menu.

Home practice may supplement clinic-based treatment. For example, if a child with a fear of needles has managed handling a syringe and needle in the clinic, at home under parental supervision they may be given the task of spending 20 minutes per night handling the needle and syringe or engaging in some activity that involves handling this equipment such as injecting a doll with water.

Where children and their parents opt for flooding rather than systematic desensitization, extensive preparation should precede the flooding session. Training in relaxation and coping skill should be conducted and the child should be given an opportunity to observe a live or videotaped model managing the feared situation. Some time should be spent in cognitive rehearsal so that the child enters the flooding situation armed with both a well-rehearsed plan and a set of coping skills for managing the anxiety. In particular the child and parents must be aware that anxiety will escalate during the flooding session despite the use of coping strategies. It will then reach a peak and gradually decline and the session will end once a stable low level of anxiety has persisted for an agreed period of time, such as 10 minutes. Adequate time should be scheduled for flooding sessions since the process may extend over a number of hours, and if the child leaves the flooding sessions before the anxiety begins to subside, then the phobia may be exacerbated by the treatment.

Flooding may be completed within a single long session. Sometimes two or three such sessions are required. In each session the child is exposed to a highly feared stimulus and prompted to use relaxation skills and self-instructions to cope with the situation. Throughout each session anxiety is monitored regularly on a 10-point self-report rating scale. Within the flooding sessions, the child may receive social reinforcement or points at fixed intervals for enduring the anxiety and be prompted to use relaxation and self-instructional skills to cope with the anxiety. At the end of the session, if a points system has been used the child should be given an immediate opportunity to exchange the points earned for an item from a reinforcement menu established prior to the session.

Social phobias

The Social Phobia and Anxiety Inventory for Children, the Social Anxiety Scale for Children–Revised, the Social Anxiety Scale for Adolescents, and the Social Phobia and Anxiety Inventory for Adolescents, all listed in Table 12.10, are useful in clinical assessment of social anxiety disorder or social phobia. In assessing children with a social phobia it is worth taking into account the literature on shyness (Asendorpf, 1993). A distinction may be made between unsociability, temperamental shyness and social-evaluative shyness. These states are distinct from social non-acceptance due to excessive aggression. Unsociable children simply have a low need for interaction with others. They are not frightened of social situations and simply prefer a low level of interaction with others. Temperamentally shy children show behavioural inhibition in new social situations, but not with family members or peers whom they know well from an early age and this characteristic is relatively stable over time. Adjustment of temperamentally shy or unsociable children depends upon the goodness-of-fit between these personality attributes and the culture. Children who show social-evaluative shyness are shy in familiar peer group situations, have low self-esteem and fear non-acceptance by peers. Both temperamental shyness and social-evaluative shyness may predispose youngsters to developing social phobia. Social phobia is an intense fear and avoidance of particular social situations because negative evaluation by others is anticipated. The most common stimuli associated with social phobias are public speaking; interacting in social situations; eating, drinking and writing in public; and using public toilets.

Cognitive-behavioural models of social phobia point to the complexity of the dynamics in this condition and its self-reinforcing nature (Albano & DiBartolo, 2007; Beidel et al., 2013; Morris, 2004; NICE, 2013d). At a behavioural level children with social phobia have poorly developed social skills. At a cognitive level, they believe that they will behave in an embarrassing way in social situations and be negatively socially evaluated by others for doing so. This anxiety compromises youngsters' performance in social situations and confirms their expectations of behaving in an embarrassing way. That is, they blush, stammer, tremble, experience memory blanks and so forth and others respond to this in negative or ambiguous ways. The socially anxious youngster interprets these reactions of others as negative evaluation. In response to these types of experiences they develop safety behaviours to either modify their embarrassing behaviour so as to create a good impression, or create avenues for escaping from the scrutiny of others quickly should they engage in embarrassing behaviours. Safety behaviours involve focusing largely on internal, somatic and psychological events rather than outwards on the behaviour of others. So the youngster's self-preoccupation precludes accurately interpreting positive responses of others to their behaviour. They selectively attend to the negative reactions of others and ruminate about these after each social interaction. This leads to a confirmation of their beliefs that they are socially inept and have once again been negatively evaluated by others. A vicious cycle develops where in social situations expectations to behave in embarrassing ways lead to anxiety. This is managed by engaging in safety behaviours and inaccurately monitoring the responses of others. In post-mortems of these events, social phobics interpret the reactions of others as confirming a view of the self as socially inept and likely to be negatively evaluated in the future. It is quite probable that with children and adolescents, this process is exacerbated by residing in a threat- and danger-oriented family culture and by advice from parents and others such as ‘concentrate on relaxing’ or ‘think of what you are going to say first and don’t say the first thing that comes into your head. These types of injunctions encourage an inward focus and prompt the youngster to engage in safety behaviours.

Social Effectiveness Training for Children is an example of an evidence-based programme for child and adolescent social phobia (Beidel et al., 2013). The programme begins with a psychoeducational session for parents and children. There are 12 weekly 1-hour individual sessions in which young people engage in exposure tasks with therapist support; 12 weekly 60- to 90-minute social skills sessions in which young people learn social skills in a small-group setting with four to six other children; and 12 weekly 90-minute generalization sessions in which groups of children engage in recreational activities and use the skills that they have learned that day in the social skills training session.

In the psychoeducational sessions the model of social phobia outlined are described. This provides a rationale for advising parents to reward children for all proactive attempts to increase the number, duration and quality of their social interactions with peers and others. Where children have developed a constricted lifestyle, ways in which the child can have greater contact with peers by joining clubs, recreational classes and youth organizations may be explored.

Exposure is central to the treatment of social phobia. This is conducted in individual sessions using in vivo systematic desensitization. A hierarchy of anxiety-provoking situations is drawn up collaboratively with the child. The child is then exposed to each of the feared situations until they habituate to them. As a rule of thumb, a 50% decrease in anxiety (on a 10-point scale) must be achieved before progressing from one item in the hierarchy to the next. During exposure children are encouraged not to use safety behaviours for managing anxiety associated with fear of negative evaluation.

In group-based social skills training sessions, one skill is learned each week for 12 weeks. The skills include greetings and introductions, initiating and maintaining conversations, listening and remembering, joining groups, making and maintaining friendships, giving and receiving compliments, assertiveness and telephone skills. Skills are taught using instruction, modelling, rehearsal, corrective feedback and reinforcement. Between sessions anxious children complete exposure-based homework assignments in which they practice newly acquired social skills in anxiety-provoking situations. Parents are coached in prompting children to complete their homework assignments and reinforcing them for doing so.

In generalization sessions which follow social skills training sessions, socially anxious children are joined by non-anxious peers for recreational activities in which they practice the social skills they have learned that day. Activities include bowling, kite flying, football, billiards, mini-golf, pizza parties, scavenger hunts, zoo visits, video arcade visits and nature walks.

Generalized anxiety disorder (GAD)

With GAD, the diagnostic instruments listed in Table 12.10 may be used as part of an initial assessment. From a behavioural perspective the many fears experienced by children with GAD are strengthened by avoidance of multiple feared situations through the processes of negative reinforcement and incubation (Eysenck, 1979; Mowrer, 1939). From a cognitive perspective, hypervigilance for potential threats to well-being and interpreting neutral situations in threating ways maintains GAD (Clark & Beck, 2010a). From a family systems perspective, GAD is maintained by a danger-oriented family culture and inadvertent parental reinforcement of children's anxious beliefs and behaviour (Carr, 2012). The metacognitive model offers a useful conceptual framework for understanding the fear that worrying has gone out of control, which typifies children with GAD (Wells, 2009). In this model GAD is characterized by both general worries about specific threats (type 1 worries), and negative thoughts about worry itself (type 2 worries), or worry about worrying. Children with GAD believe that type 1 worries are useful coping strategies for managing threatening situations and so are motivated to engage in this type of worrying. However, they are also motivated to avoid type 1 worries because it leads them to engage in type 2 worries about (1) the uncontrollability of the worrying process (e.g. 'I can't stop worrying') and (2) the adverse consequences of worrying for personal well-being (e.g. 'this worrying is wrecking my life'). Thus they vacillate between trying to suppress type 1 worries, and then actively worrying as a way of coping when type 1 worries intrude unbidden into consciousness. This unbidden intrusion of type 1 worries into consciousness confirms type 2 worries that the process is out of control. Children may then seek reassurance from parents and family members that 'there is nothing to worry about' or avoid situations that might provide evidence that that their type 1 and type 2 worries are unfounded. These strategies for managing anxiety confirm and reinforce type 2 worries.

Treatment for GAD, particularly where there is a threat- and danger-oriented family culture, may be predominantly family based and include many of the components of the anxiety management programme described in the section on general treatment principles. Within the context of family sessions, psychoeducation about anxiety may be offered. Parents may be coached in helping their children to challenge, test and reinforce non-threatening interpretations of situations using the CTR cognitive restructuring technique described earlier. Family sessions may also be used as a format for helping parents learn how to instruct their child in relaxation skills. Reward programmes may be set up within family sessions which provide a way for the parents to motivate their child to be more courageous and complete exposure tasks in which they enter into threatening situations and remain there until their anxiety subsides. Parents may also be trained to use systematic ignoring of worry-talk to help children break the habit of consistently engaging in this type of threat-oriented discourse.

Children may be invited to set aside 15 minutes each day and actively engage in worrying during that period under the supervision of their parents to help them gain control of the worrying process (and this may go some way to alleviate type 2 worry).

In addition to these core family-based treatment sessions, an individual, group, or computer-based treatment format may be used to help children develop self-monitoring skills, self-instructional coping skills and relaxation coping skills following a structured format such as Coping Cat (Kendall & Hedtke, 2006; Kendall & Khanna, 2008), the FRIENDS programme (Akiko Iizuka et al., 2013) or the *Pesky Gnats* CBT computer game for children (O'Reilly, 2014).

Panic disorder

The diagnostic instruments listed in Table 12.10 may be used in the assessment of panic disorder and agoraphobia. Cognitive theories of panic disorder argue that panic attacks arise from catastrophic misinterpretation of bodily sensations associated with arousal (Craske & Barlow, 2006; Queen & Ehrenreich-May, 2013). Rapid heart rate may be misinterpreted as evidence of an impending heart attack. Breathlessness and choking sensations may be misinterpreted as evidence of imminent suffocation. Dizziness, derealization and depersonalization may be misinterpreted as evidence of loss of control or the onset of insanity. The disposition to make such catastrophic misinterpretations is referred to as anxiety sensitivity which is measured with the Childhood Anxiety Sensitivity Index (Silverman et al., 1991) and has three factors: fear of somatic symptoms, fear of psychological symptoms and fear of publicly observable anxiety reactions.

The quality of panic attacks changes as the child matures from childhood to adolescence (Klein & Pine, 2002). Pre-adolescent children probably attribute panic to external rather than internal factors and so do not catastrophize like the adolescent, who has the cognitive maturity to interpret physiological sensations in catastrophic terms. The child says, 'When I do an exam my heart beats faster.' The adolescent says, 'Even though I know I can do the exam, I notice my heart beating faster. I must be going mad or about to die!' In panic disorder youngsters are aroused by situations they interpret as threatening or by physical exertion and respond with hyperventilation. They perceive the somatic changes that go with hyperventilation as a sign of distress and focus inwardly on these. Their catastrophic cognitions about the somatic changes exacerbate arousal and hypersensitivity. The panic escalates. They develop expectations of recurrence and typically avoid unsafe situations. This normally evolves into secondary agoraphobia. If they do enter an unsafe situation they withdraw before their anxiety reaches a peak and so their avoidance behaviour is negatively reinforced. The youngster's family, friends and physician encourage an inward focus on somatic sensations and avoidance of feared situations. In doing so they maintain the panic attacks and secondary agoraphobia. This type of understanding of the condition is useful to include as part of psychoeducational input to parents and youngsters suffering from panic with secondary agoraphobia.

Treatment involves enlisting parental support to help youngsters develop relaxation and self-instructional coping skills so that they will be able to undergo exposure programmes for both feared internal somatic signs of hyperarousal and feared external stimuli, such as being some distance away from the safety of the home (Queen & Ehrenreich-May, 2013).

Relaxation skills training with youngsters who have panic disorder is sometimes complicated by the fact that focusing inward on changes in muscle tension may lead to increased tension rather than relaxation because of the tendency of youngsters with panic disorder to misperceive internal cues and catastrophize about them. Where this type of problem occurs, visualization may be used as an alternative to progressive muscle relaxation, and youngsters may be invited to focus not on their somatic state but on relaxing imagery such as that suggested in Figure 12.3.

With self-instructional training, much of the work involves helping youngsters see that misunderstanding the significance of fluctuations in arousal and construing them as dangerous leads to the release of adrenaline and to an escalation of anxiety. In addition, hyperventilation leads to increased arousal. In order to overcome the fear of hyperarousal, the youngster should be given the opportunity to voluntarily enter into such a state by hyperventilating at a rate of 30 breaths per minute and then to wait and see if some catastrophic event occurs (Craske & Barlow, 2006). When this is done on a number of occasions, the youngster learns that internal signs of arousal are not harbingers of doom. Youngsters may then be trained to change their breathing pattern to regular slow deep breaths (inhale for a count of three and breathe out for a count of six). This pattern of slow breathing contributes to relieving the symptoms of hyperarousal. It is very useful if the parents are present and participate in supporting the youngster through these very taxing exposure sessions.

When exposure to internal arousal cues has been completed and these cues no longer arouse excessive anxiety, exposure to travelling away from the safety of the home may be conducted. It is most effective to conduct this type of treatment in vivo. A gradual desensitization or complete flooding approach may be used. The pros and cons of both may be discussed with the youngster and the parents. With desensitization the youngster and parents construct a hierarchy of about 10 steps from standing outside the front door of the home to being a few miles away from home. Then arrangements are made for the youngster to enter these situations and remain in them until arousal reaches a peak and then drops to an acceptable level. Self-instructional coping skills and relaxation skills may be used to help the youngster reduce arousal in each of the situations. With flooding, the youngster agrees to travel a long way from the house and remain at this location until arousal reaches a peak and subsides. For both gradual desensitization and flooding, the parents or psychologist or both may accompany the youngster on exposure treatment outings. In both flooding and desensitization sessions, anxiety is regularly monitored on a 10 point self-report rating scale.

Where panic disorder and secondary agoraphobia have led to a disruption of the youngster's schooling, liaison with school staff during assessment and when planning the return to school is vital. The same procedures should be used for school liaison as were described in the section on school refusal.

PTSD

The PTSD assessment instruments listed in Table 12.10 may be used to screen for and diagnose PTSD. In addition to the assessment protocol outlined earlier in this chapter, for victims of physical or sexual abuse additional assessment procedures given in Chapters 19 and 21 may be used. PTSD differs from other anxiety disorders in that the trauma violates more of children's safety assumptions than precipitating events in other anxiety disorders and it leads to more complex and wide-ranging effects (American Academy of Child and Adolescent Psychiatry, 2010; Carr, 2004; NICE, 2005a; Smith et al., 2010, 2013; Yule et al., 2013). Following the traumatic event, the feared stimuli avoided by the youngster are both external and internal. The external stimuli may include people, places, objects and events that remind the child of the trauma. Repetitive intrusive memories, thoughts, images and emotions during wakefulness and trauma-related nightmares during sleep are the main internal anxiety-provoking stimuli. Reactions to these stimuli include hyperarousal and attempts at avoidance. At an intrapsychic level, an attempt to exclude trauma-related intrusions from consciousness through suppression or distraction is the principal avoidance reaction. At a behavioural level youngsters avoid external stimuli associated with the traumatic event. They also attempt to avoid situations that will lead to intrapsychic trauma-related intrusions. For example, some children will not go to bed for fear of having nightmares. Others will not separate from their parents or caregivers or sleep alone. A central concern for many traumatized youngsters who subsequently experience intrusions is the degree to which PTSD symptoms reflect the onset of psychosis. Such youngsters may ask, 'Am I losing my mind? Am I going mad?' Psychoeducation about PTSD to address these concerns forms a central part of debriefing and treatment.

Children with PTSD engage in an ongoing approach-avoidance struggle with respect to stimuli that remind them of the trauma. Older children experience a pressure to talk about the trauma but have difficulty doing so. Younger children, while they may avoid talking about the trauma or external stimuli related to it, often engage in play activities such as drawing or make-believe games in which they repeatedly re-enact the trauma situation. This approach-avoidance conflict probably reflects competing drives to avoid further danger but also the need to process intense emotional information through exposure and rehearsal and to integrate this into one's overall worldview.

More than any other anxiety disorder PTSD has a profound effect on academic performance, and so psychometric assessment of intelligence and attainments, along with an evaluation of the child's capacity to complete academic tasks, should form part of the overall assessment. (Guidelines for the psychometric assessment of abilities are set out in Chapter 8.)

The suddenness and degree of life-threateningness of the trauma are the two main trauma variables associated with the severity of symptomatology. The more sudden and life-threatening the trauma, the more severe the PTSD symptoms. Previous psychological difficulties and multiple family problems are important predisposing vulnerability factors. On the other hand, high ability and good problem-solving skills are significant protective factors.

Behavioural formulations of PTSD argue that through classical conditioning, cues present at the time of the trauma that were paired with trauma experiences which elicited extreme trauma-related anxiety later elicit similar post-traumatic anxiety and intrusive memories. Repeated exposure to these cues would lead to extinction, but traumatized children avoid these cues, and this avoidance is negatively reinforced through instrumental conditioning. Negative reinforcement involves the strengthening of a response which leads to a reduction in aversive stimulation. Behavioural treatment based on this formulation involves exposure to trauma-related cues and prevention of avoidance responses.

Ehlers and Clark (2000) argue that chronic PTSD is maintained by three sets of cognitive factors: (1) excessively negative appraisals of the trauma and its aftermath; (2) a disturbance of autobiographical memory characterized by poor elaboration and conceptualization of the trauma, strong associative memory and strong perceptual priming which leads to rapid recollection of vivid emotional memories in response to trauma cues; and (3) the use of problematic avoidant coping strategies which prevents adaptive modification of negative appraisals and vivid emotional traumatic memories. Brewin (2001) has argued that sensory, motor and physiological (but not verbal) aspects of traumatic memories are encoded (probably in the amygdala) with no input from the hippocampus and are triggered by cues associated with the trauma. Effective therapy involves accessing these situationally accessible memories (SAMs) and elaborating upon them verbally so they become encoded (probably in the hippocampus) as verbally accessible memories (VAMs). VAMs can be voluntarily retrieved, the threatening aspects of these edited, and then assimilated into the person's autobiographical memory and worldview.

An extreme initial reaction to the trauma, significant additional stressful life events in the aftermath of the trauma, and the absence of adequate levels of parental or school support in the post-trauma period have all been found to determine the severity of PTSD symptoms. Where parents have been exposed to the same trauma as their children, the children's symptoms persist longer in cases where parents show protracted PTSD symptomatology. But where parents are skilled at processing their own emotions and managing their PTSD symptoms, they are better at helping their children do so, and this provides a rationale for a family-based approach to treatment.

Trauma-focused cognitive behaviour therapy has the strongest evidence base for the treatment of PTSD in young people (Cohen et al., 2006; Kowalik et al., 2011; NICE, 2005a; Smith et al., 2010). Treatment for children with PTSD should aim to maximize family, school and peer support for the child and provide the child with opportunities to emotionally process the trauma through exposure to internal and external trauma-related stimuli. In the longer term, treatment may also aim to provide the youngster with opportunities to re-evaluate and reconstruct their view of their world. Family support may be maximized by making family sessions the core of a multi-systemic treatment programme. Within the sessions the aim is to facilitate parental and sibling support of the traumatized child. Where all family members have been involved in the trauma (e.g. a house fire or an armed robbery), family members may each be given an opportunity to recount their recollections of the situation, and the parents may be coached during such sessions to support the children. Sometimes it is helpful to provide separate sessions for parents, within which they process their traumatic memories so that they will be better able to devote their energy to supporting their traumatized children within whole-family sessions.

Treatment may begin with psychoeducation the aim of which is to provide a rationale for therapy and allay youngsters' and parents' fears that the child is 'going mad'. The DSM criteria may be described. The way avoidant strategies prevent traumatic memories from being processed may be explained. The need to bring these traumatic memories into consciousness, habituate to them and process them may then be presented as the rationale for exposure-based treatment. Other issues that may be covered in psychoeducation are the need to re-establish routines for daily living and sleeping, the need for the child to obtain support from family, friends and school staff, the need for parents to develop strategies for managing behavioural problems which have developed as result of traumatization, and the need to address substance use in the way described in Chapter 15, if youngsters are using drugs or alcohol to manage PTSD symptoms.

Young people and/or parents may be invited to keep structured diaries in which they record the frequency and intensity of certain key symptoms. With re-experiencing symptoms, the number of flashbacks per day or the number of nightmares per night may be recorded. For hyperarousal symptoms, ratings may be made on a 100-point subjective units of discomfort (SUDs) fear thermometer, where 0 = perfectly relaxed and calm and 100 = the worst imaginable anxiety and distress. Ratings may be made either at fixed times during the day (9.00 am, 12.00 noon and 9.00 pm) or at critical points such as during flashbacks or after awakening from nightmares. Also, youngsters may record intrusion recovery times, that is, how many minutes it took them to return to a rating of less than 50 SUDs after a flashback or nightmare. With avoidance symptoms, some index of the frequency or duration of exposure to trauma-related cues or memories may be recorded. For example, whether or not they spent 5 minutes per day talking to a parent about a frightening aspect of the trauma; the number of times they had the courage to walk past the scene of the trauma rather than avoiding it; or the number of days they were able to overcome separation anxiety and go to school. Symptom-monitoring systems should be tailored to the unique requirements of each case. Symptom-monitoring diaries should be reviewed at the start of every session.

Where PTSD has led to disruption of normal daily and night-time routines, early in treatment young people may be invited in collaboration with their parents to plan normal daily routines including going to school, socializing with peers, engaging in regular pleasant recreational activities, getting regular physical aerobic exercise, and regularizing their sleep–waking cycle. Sleep management involves setting fixed times for going to bed and getting up; agreeing on a system for gradually phasing out parental night-time contact in youngsters who have been coping with anxiety by sleeping with their parents; and using relaxation exercise and audiotapes or soothing music to help them sleep when they go to bed initially and following nightmares which have awakened them. Coping skills training may be offered to equip youngsters with ways of managing anxiety associated with flashbacks and nightmares and anxiety evoked during therapeutic exposure to trauma-related cues and memories. This type of training involves learning relaxation skills and cognitive coping skills described earlier in the chapter.

Graded exposure is the central therapeutic mechanism through which PTSD symptoms are resolved. Exposure procedures all involve recalling traumatic memories as vividly as possible, holding these in consciousness and tolerating the intense anxiety associated with them until habituation occurs. Exposure to trauma-related cues may be used to bring traumatic memories into consciousness. Video or audio recordings or photographs of trauma-related stimuli may be used and the site of the trauma may be visited. Visualization, writing, painting, drawing, drama, and doll-play may all be used to help youngsters keep the traumatic memories in consciousness. Commonly, exposure is facilitated in a gradual way with children being exposed to a graded hierarchy of increasingly anxiety-provoking situations. Situations may be graded, in terms of the amount of anxiety they evoke, with reference to the 100 SUDs fear thermometer. Where routine visualization evokes very high levels of anxiety, the amount of anxiety associated with visualizing traumatic scenes may be reduced by inviting youngsters to visualize these scenes as if viewing them from a distance or as if they were on TV.

Exposure sessions are carefully planned in a collaborative way with the young person and parents. Youngsters are briefed that the aim of each exposure session is to hold their traumatic memories vividly in consciousness until their SUD rating drops to an agreed level. They are informed that initially their SUDs will rise, then reach a peak, and then gradually decrease. It should be made very clear to youngsters that to terminate exposure before habituation may sensitize them rather than help them to habituate to trauma-related memories. Because habituation can be a slow process, 90-minute treatment sessions may be most appropriate. To facilitate habituation, youngsters may be invited to use their relaxation skills and cognitive coping skills or ask their parents to hold their hands, thereby providing social support. Each time youngsters complete an exposure exercise and habituate to the anxiety-provoking situation, they should be reinforced. They may be reinforced with praise, and if appropriate with tokens or stars on a star chart, which can be accumulated and exchanged for valued prizes or treats on a reinforcement menu. Between exposure sessions, youngsters may be invited to listen to audio-recordings of exposure sessions each day and/or to write a detailed account of the traumatic memories addressed in exposure sessions and read these accounts each day. These homework assignments consolidate habituation gains made during exposure sessions.

For imaginal exposure to traumatic memories or trauma-related nightmares, youngsters are invited to sit in a comfortable position with their eyes closed, to relax using relaxation and breathing exercises, such as those described in Figure 12.3, and to visualize the traumatic scene as vividly as possible, They are then asked to verbally recount their visualization of the traumatic scene or dream, in the first-person present tense. To enhance the vividness of the visualization, the therapist may request detailed accounts of what the youngster sees, hears, smells, tastes and feels. Throughout this, process, at intervals of about five minutes, the therapist requests SUDs ratings. When SUDs ratings show marked increases, the therapist may ask the child to rerun that part of the scene (the ‘hot spot’) a number of times. This repeated exposure facilitates habituation. It is appropriate to progress from visualizing a less anxiety-provoking scene to visualizing a more anxiety-provoking scene after habituation to the former has occurred. When habituation to the most anxiety-provoking scene has occurred, it may be appropriate to progress to media-assisted exposure and in vivo exposure, particularly where residual PTSD symptoms remain.

For media-assisted exposure, traumatic memories are evoked using audio and video recordings or photographs of trauma-related cues. Clips from TV or recorded films of trauma-related situations such as car crashes, bank raids, earthquakes, hurricanes and so forth that are particularly reminiscent of the actual trauma may be used. Audio-recordings of the sort of sounds that accompanied the trauma may be used, for example, an audio-recording of a howling wind for a hurricane survivor. Photographs of the trauma scene may also be used. During exposure to recordings or photographs of trauma-related cues, youngsters are invited to describe what the cues remind them of. Detailed sensory questioning is used to help them elaborate their memories. As with imaginal exposure, youngsters may be invited to verbally rerun ‘hot spots’ in these exposure sessions also to facilitate habituation.

If parents have attended a number of imaginal or media-assisted exposure sessions and have observed the way the therapist has conducted these, then they may be invited to adopt the role of the therapist for in vivo exposure. The parents are invited to accompany the child to the trauma site, to encourage the youngster to verbalize memories it evokes, and use coping strategies to help them to habituate to being at the site of the trauma.

Where youngsters have been abused, confronting their victimizer either in imagination or in vivo is a critical part of the exposure process. This confrontation process involves staying in the presence of the imagined or actual abuser. Then, youngsters must clearly and forcefully state how the abuse has hurt them; how angry and betrayed they feel as a result of this; and how they will never let the abuse recur because they now have both the skills to protect themselves in future and the support of the non-abusing parent. Abuse survivors may be invited to imagine and rehearse this sort of conversation in therapy. As homework, they may also be invited to write detailed, emotionally charged letters to the abuser covering these points. However, only under carefully considered circumstances should such letters ever be sent. In the case of intrafamilial abuse, it may be appropriate in some instances for the therapist to facilitate a session in which the youngster, supported by the non-abusing parent, reads aloud a prepared confrontational letter to the abusing parent. A fuller discussion of family intervention where children have been traumatized by intrafamilial child sexual abuse (CSA) in given in Chapter 21.

Grief work is necessary where youngsters with PTSD have experienced traumatic events which led to bereavement. Natural disasters, transportation accidents and shootings are examples of such events. Grief work involves movement through a series of processes including shock, denial, emotional turmoil, acceptance and resolution as described in Chapter 24. These are not discrete stages, nor is progress thorough these process particularly orderly, and not all bereaved people experience all processes. However, to move towards resolution imaginal exposure to memories of both positive and negative episodes of interaction with the deceased, and to memories of their death, is necessary. This may be facilitated by media-assisted exposure, involving viewing photographs, video-recordings and other memorabilia that remind the bereaved of the deceased. In facilitating grief work in children with PTSD, it is appropriate to follow the procedures outlined earlier for imaginal and media-assisted exposure. In vivo exposure involving visiting the disaster site or the deceased’s grave may also be incorporated into grief work. The goal of such grief work is to help the child develop a worldview in which their valued relationship with the deceased as a living person is part of their past, but their valued memory of them lives on in the present. It should be acknowledged that the emotional pain associated with bereavement takes time to resolve. This type of child-focused grief work is best offered within a family context, particularly where it is a family member who has died. Loss of a family member necessitates family reorganization. As the child makes progress in processing traumatic memories associated with bereavement, other family members may be invited to sessions to discuss the impact of the bereavement on family’s rules, roles and routines. A full discussion of facilitating such family sessions is given in Chapter 24.

Safety skills may be required for survivors who have been victimized by others so that they will be equipped to prevent re-victimization. Safety skills training is an essential part of treatment for survivors of abuse and violence. Youngsters need to be coached in anticipating and recognizing situations in which they may be victimized again. They also need to be coached in planning how to avoid or escape from potentially risky situations, for example, by withdrawing from such situations as soon as they recognize them, saying ‘no’ assertively, calling for help, and retaining a belief that they are in charge of their own lives.

Where survivors of aggressive or sexual victimization have difficulty controlling aggressive or sexual urges, they may need to be coached in socially appropriate ways to regulate and express these intense feelings. Relaxation skills, aerobic physical exercise, and distraction through absorption in music or other activities may be used to regulate intense aggressive and sexual impulses. However, intense urges may also require expression. For managing strong sexual urges, youngsters may be helped to plan routines for private masturbation rather than public masturbation or inappropriate sexual interaction with others. For managing intense anger that is unresponsive to strategies already mentioned, youngsters may be helped to plan routines for expressing this privately in socially appropriate ways, for example, by routinely scheduling time for hitting a punching bag.

Parents of traumatized children may be offered behavioural parent training to help them provide their children with appropriate support as they progress through an exposure programme, and also to manage trauma-related behavioural problems. These include separation anxiety, avoidance of routine social activities, sleep difficulties, aggression, defiance and over-sexualized behaviour. Parents and children may be coached in how to use reward programmes as described in Table 4.5 in Chapter 4. This begins with pinpointing behavioural goals. Common goals include completing daily therapeutic exposure homework assignments, school attendance (if separation anxiety has prevented school attendance), engaging in daily social interactions with peers (if they have become reclusive), sleeping in their own beds for some or all of each night (if through separation anxiety they have been sleeping with parents), regulating intense anger using relaxation and breathing exercises (if they have problems with controlling aggression) and managing sexual urges in a socially appropriate way (if they display over-sexualized behaviour following CSA). At any one time, no more than three behavioural goals should be addressed. Large goals may be broken down into smaller and more easily achievable targets. Plans for reinforcing target behaviours need to be established. For rigid, entrenched problematic behaviour patterns, praise and approval may be insufficient reinforcement, and a more formal system may be required. Token or star chart systems are appropriate for young children. A points system may be used for adolescents. In collaboration with their children, parents may be helped to develop a reinforcement menu and arrive at an agreement about how an accumulation of tokens, stars or points may be periodically exchanged for a reward or privilege on the reinforcement menu.

Where youngsters occasionally have difficulty using the self-regulation skills mentioned in the previous section to control their sexual and aggressive impulses, parents may use time-out from reinforcement, as described in Chapter 4, to help them develop better self-control. Here youngsters who display inappropriate aggression or sexual behaviour spend a brief period alone under parental supervision, until they regulate their intense emotions and calm down. They then return to interacting with their parents, and are reinforced for using time-out to successfully regulate their intense emotions. It is important that time-out is framed as a benign parental strategy for fostering self-regulation skills and not as a punishment, since this would amount to re-victimization.

Trying to help parents suffering from PTSD implement a behavioural programme for their child is likely to lead to a failure experience. This may impact negatively on both the parents' and the child's recovery. Therefore, where parents suffer from PTSD, they should be offered an opportunity to undergo their own exposure programme, to begin to resolve their own PTSD symptoms, before attempting to implement a child-focused behavioural programme.

School staff require psychoeducational input, of the type outlined earlier, when a pupil has been traumatized. A meeting between the school staff, child, parents, and therapist may be convened. In this meeting, the profound effects of PTSD symptoms on academic performance should be highlighted. Teachers should be informed of the temporary need for the youngsters' workload to be tailored to take account of this. Arrangements should also be made for youngsters to have a designated member of the school staff to whom they can go if they become particularly distressed during school hours. This staff member should be briefed in how to facilitate the child in expressing concerns and informed that ventilating feelings and recounting trauma-related memories is a productive rather than a destructive process.

Traumatization may lead people to adopt catastrophic and pessimistic beliefs about the world, the future, the self and others. Common post-traumatic beliefs are that nowhere in the world is safe; a short life is inevitable; the traumatized person is going insane or losing their mind; the traumatized person is helpless, shameful, guilty, and stigmatized; and others are untrustworthy. In cognitive restructuring, youngsters with PTSD are invited to identify and articulate these post-traumatic beliefs. They are asked to accept that their new beliefs about the world are hypotheses deserving rigorous testing rather than newly revealed truths. They may be invited to write down the beliefs they had about the world, the future, the self and others before the trauma and after the trauma. Then they may be invited through Socratic questioning within therapy sessions and behavioural experiments outside therapy sessions to collect evidence about each post-traumatic belief and evaluate the degree to which the belief is supported by evidence. As each new piece of evidence accumulates, for each belief they may be asked to rate their conviction that the belief is true on a 100-point scale ranging from 1 = 'I'm completely uncertain about how true this belief is' to 100 = 'I'm absolutely sure this belief is true.'

Relapse prevention involves helping youngsters and parents anticipate situations in which relapses may occur, planning strategies for detecting potential relapses early and writing out a relapse management plan. Relapses are more probable in situations where there are many trauma related cues, where the person has little social support and a high level of other life stresses, and when entry into the situation occurs unexpectedly or at a trauma anniversary. Relaxation skills, cognitive coping skills, especially retaining an optimistic perspective, and arranging social support from family, close friends or a therapist are useful elements to include in a relapse management plan.

Summary

Fear is the natural response to a stimulus which is perceived as posing a threat to well-being, safety or security. This response includes cognitive, affective, physiological, behavioural and relational aspects. A distinction may be made between normal adaptive fears, which are premised on an accurate appraisal of the potential threat posed by a stimulus or situation, and maladaptive fears, which are based on an inaccurate appraisal of the threat to well-being. Children are referred for treatment of an anxiety problem when it prevents them from completing developmentally appropriate tasks such as going to school or socializing with friends. As children's cognitive abilities develop, the stimuli that elicit normal fear and abnormal anxiety change from the predominantly concrete (e.g. animals) to the more abstract (e.g. negative evaluation). The overall prevalence for anxiety disorders in children and adolescents is approximately 8.1%, with a range of 1.9–23.8%. In clinical samples there is considerable co-morbidity among different anxiety disorders and between anxiety disorders and other problems such as depression, conduct disorder, ADHD and substance use disorders. Distinctions are made in DSM and ICD classification systems between separation anxiety, selective mutism, specific phobias, social phobias, GAD, panic disorder, PTSD and OCD. These different anxiety problems vary in terms of the stimuli that elicit anxiety, the patterning of hyperarousal, the significance of differing aetiological factors in their development and their impact on interpersonal adjustment.

Biological and psychological theories of anxiety disorders have been developed. Biological theories point to the role of genetic factors and neuroanatomical, neurotransmitter and neuroendocrine abnormalities in systems associated with threat processing and fear. Psychological theories implicate particular temperaments, traits, and cognitive biases in the aetiology of anxiety disorders. Psychological theories have also been developed within the cognitive, behavioural, psychoanalytic and family systems traditions. Research and clinical accounts arising from these theories point to the complex multi-determined nature of anxiety disorders. Biological and psychosocial factors may predispose youngsters to developing anxiety disorders, precipitate their onset and maintain or exacerbate these conditions. Effective treatment programmes for young people with anxiety problems are based on a thorough assessment of symptomatology and aetiological factors; incorporate a high level of family involvement; and begin with psychoeducational input about the complex nature of anxiety. Such orientation sessions are typically followed by training in monitoring of symptomatology, relaxation and cognitive restructuring skills. Treatment may also entail rehearsal following observation of a model coping with exposure to a feared stimulus and exposure to feared stimuli until habituation occurs. Family- and school-based reward systems to increase motivation to follow through on exposure exercises are also included in most effective treatment programmes. Important features of case management are school involvement in treatment where avoidance is school based, and liaison with other professionals, particularly paediatric medicine, if there are anxiety-based somatic symptoms. Referral of parents for treatment of psychological and marital problems should also be made if appropriate.

Exercise 12.1

Conor is a 14 year old boy who was referred in September because of strange behaviour at school. While his behaviour and attainments were broadly speaking normal last term, this term he is behaving oddly. He has been reluctant to go to school on a couple of occasions. In school, he tends to spend lot of time preoccupied and mixes little with his peers. His schoolwork is deteriorating. When asked to read in class he stammers, and on one occasion he ran out of the classroom crying. He is an only child and both of his parents are professionals who work long hours. His parents say that he has been having nightmares but will not talk about them. His developmental history is unremarkable, although he was always a shy child, like his father and grandfather. He spent the summer at an adventure sports centre where he learned sailing, canoeing, horse riding and rock climbing. Like the other children he learned to capsize and right a sailing dinghy and canoe. He fell off a pony while learning to jump and found the rock climbing very difficult. He didn't get hurt at that but slipped occasionally. His father, Kurt, was adamant that he attend the camp every summer for the next 3 years to help him mature. His mother, Cynthia, is concerned that Conor may spend too long away from home and miss the stability of family life. Both parents are confused by their son's silence and odd behaviour.

Draw a genogram and sketch in your hypotheses about family relationships.

What are the main symptoms in this case and which of these suggest that they may reflect an anxiety problem?

What do you suspect are the predisposing, precipitating, maintaining and protective factors?

How would you proceed with the assessment and management of this case?

Exercise 12.2

Work in pairs and take turns practicing the relaxation skills training protocol set out in Figure 12.3.

Exercise 12.3

Work in pairs taking the roles of therapist and client.

If you are taking the role of the client, imagine that you have GAD. You are frightened of multiple situations and the fact that you can't stop worrying. Alternatively you may imagine that you have panic disorder and are frightened to be in unsafe places where you might have a panic attack. Think your way into your role by imagining how your life in the role has been over the past 10 days. Think about what has made you most frightened. Think about how has this affected your activity and relationships and how badly do you want to be rid of this anxiety. In the role-play exercise assume you have a good relationship with the therapist and want to learn how to cope better with 'dangerous thinking'.

If you are taking the therapist role assume that there is a contract for therapy and the client wants help coping with anxiety. First, explain that the way we think affects how we feel with reference to a concrete example like the following. If you meet a dog on the street and think it is *dangerous*, you will feel *fear*. If you meet a dog on the street, and think it is *friendly*, you will feel *happy*. So dangerous thinking – looking at ambiguous situations as if they were dangerous – causes anxiety. Second, explain the CTR (Challenge-Test-Reward) method as follows: one way to cope with anxiety is to begin to challenge dangerous thinking, test out this challenge and then reward ourselves for doing this. Here is an example: imagine you meet a dog on the street and think the following dangerous thought: 'He's dangerous and will bite me.' You can **challenge** this by saying, 'No – an alternative view is he wants to be my friend.' You can **test** this alternative view out by looking for evidence to support it: 'I will not run away. There – I didn't run and he didn't bite me. He did want to be friendly.' If you find evidence to support your alternative to dangerous thinking praise yourself as a **reward**: 'Well done.' Third, invite the client to use the CTR method in the following way. Think about a situation that occurred in the past 10 days where you became anxious. What did you think? What was an alternative thought? How could you have tested that? How would you have rewarded yourself? Finally, invite the client to use the CTR method for the next week.

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Websites

Anxiety UK: https://www.anxietyuk.org.uk

Gary O’Reilly’s Pesky Gnats: http://www.juvenilementalhealthmatters.com/Welcome.html

Paula Barrett’s FRIENDS for life programme: http://paulabarrettfriends.com/

Philip Kendall’s Coping Cat workbooks: http://www.workbookpublishing.com

Take Action: http://www.friendsinfo.net/

UCLA Child Anxiety Disorder Programme: http://www.npi.ucla.edu/caap/

Chapter 13

Repetition problems

Obsessive-compulsive disorder (OCD) and tic disorders form part of a spectrum of neurodevelopmental disorders where the central psychological concern is the fact that adjustment is compromised by the execution of repetitive actions (Leckman & Bloch, 2008; Martino & Leckman, 2013; Rapoport & Shaw, 2015; Storch & McKay, 2014; Storch et al., 2007). With OCD, compulsive rituals (such as handwashing) are carried out to reduce anxiety associated with obsessions (such as contamination) elicited by cues (such as dirt). With tic disorders, tics occur involuntarily, sometimes following premonitory urges, and these tics are sudden, rapid, recurrent, non-rhythmic, stereotyped motor movements or vocalizations. The view that OCD and tic disorders form part of a spectrum is based on genetic and neurobiological considerations. With regard to genetics, there is a preponderance of OCD and Tourette's disorder within families where one or the other disorder is diagnosed. With regard to neurobiology, dysregulation of neural circuits involving the basal ganglia occur in both OCD and tic disorders. Distinctions are made between OCD and tic disorders in DSM-5 (APA, 2013) and ICD-10 (WHO, 1992), although neither system acknowledges that both of these problems fall on a spectrum. From Table 3.1 in Chapter 3, it may be seen that in ICD-10 OCD is classified with neurotic, stress-related and somatoform disorders, while tic disorders are classified separately from all other disorders. From Table 3.2 in Chapter 3, it may be seen that in DSM-5, tic disorders are classified with neurodevelopmental disorders and OCD is classified in a section with other OCD spectrum disorders excluding tic disorders.

In this chapter special consideration will be given first to OCD and then to Tourette's disorder. These are particularly serious conditions. Tourette's disorder is a troublesome lifelong condition for which there is no permanent cure. Between a third and a half of all paediatric cases of OCD continue to display significant symptomatology in adulthood which compromises social and vocational adjustment.

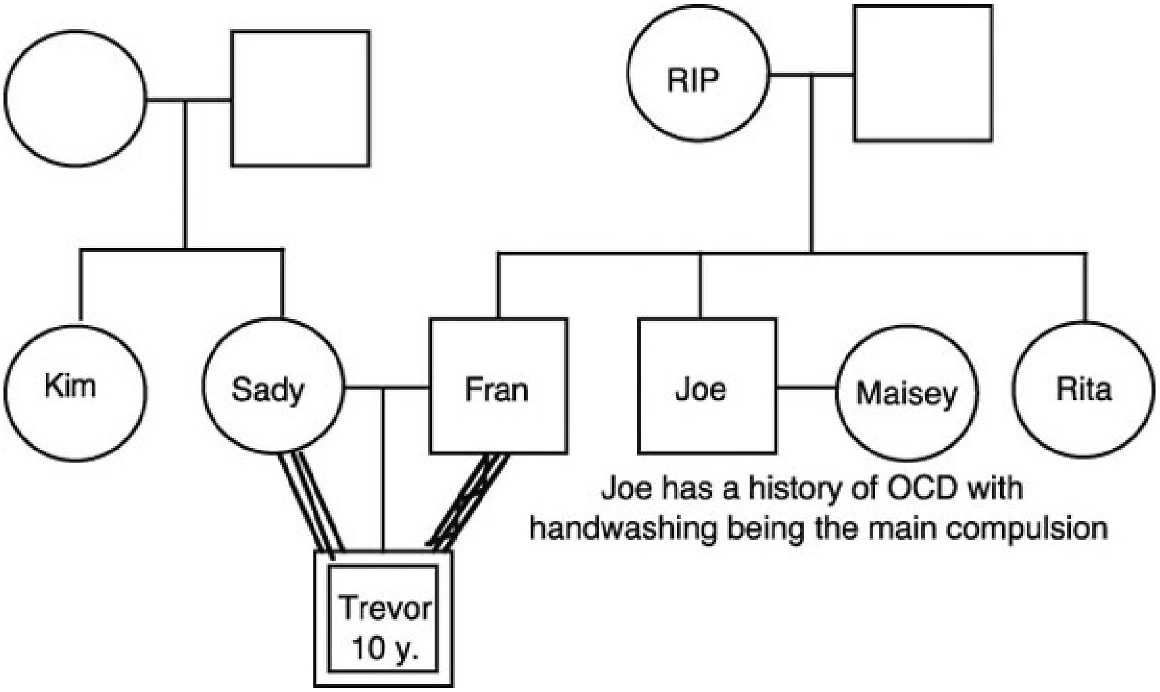
Obsessive-compulsive disorder

OCD is a condition typically characterized by distressing obsessional thoughts, urges or images on the one hand, and compulsive rituals which reduce anxiety associated with obsessions on the other. A case example of OCD is given in Box 13.1 and diagnostic criteria are presented in Table 13.1.

Clinical features and epidemiology

The clinical features, epidemiology and course of OCD have been well described (American Academy of Child and Adolescent Psychiatry, 2012a; NICE, 2005b; Storch & McKay, 2014; Rapoport & Shaw, 2015; Storch et al., 2007). The two central features are obsessional anxiety-provoking thoughts and compulsive anxiety-reducing rituals. The most common obsessions are with dirt and contamination; harmful catastrophes such as fires, illness or death; symmetry, order and exactness; religious scrupulosity; disgust with bodily wastes or secretions such as urine, stools or saliva; unlucky or lucky numbers; unacceptable aggressive urges or ideas; forbidden sexual thoughts; and the need to tell, ask or confess. Obsessions are accompanied by anxiety and other affects including doubt, disgust and depression. Common anxiety-reducing compulsive rituals include washing, repeating an action, checking, removing contaminants, touching, ordering, collecting, counting, praying and reassurance seeking. Most youngsters have 'insight' and are aware that their obsessional ideas are related rituals and are not sensible or socially acceptable. They therefore expend great effort to control their compulsions in public and keep them secret, but relinquish such control at home. This may lead parents to view the compulsions as under complete voluntary control and an expression of disobedience.

Box 13.1 A case of OCD



Joe has a history of OCD with handwashing being the main compulsion

Referral. Trevor, an only child aged 10, was referred for consultation by the family doctor. Trevor was extremely unhappy because at school he was being ridiculed and rejected by his peers. They taunted him for being overweight, poor at sports and overly clever. These, incidentally, were the principal ways in which he resembled his father, Fran. Trevor was also taunted at school for the foul odour that came from his clothing which was usually saturated with saliva. His clothing was typically in this state because he felt compelled periodically to spit onto his hand and wipe the saliva onto his clothes.

History of the presenting problem. Usually, the impulse to spit arose when he thought about excrement, mucus, blood, semen or any substances that resembled these bodily products or swear words such as *shit* or *snot* or *fuck* associated with these body products. A range of stimuli made him think about these body products and swearwords. For example, dog's excrement on the pavement, blood on his hand or congealed jelly in the pork pies that his father loved to eat all reminded him of body products and swearwords. Dog's excrement elicited far more vivid thoughts and images than other stimuli. Images or thoughts involving these bodily substances or associated swearwords led Trevor to experience anxiety. The anxiety occurred because of the following conflict. Trevor prided himself on being a good boy and these thoughts or images were full of badness and so, according to his magical logic, made him bad. The anxiety was partially alleviated by the spitting because, for Trevor, the *badness* of the thoughts or images became contained in the saliva and spitting purified the body by providing an avenue through which the badness could be extruded.

Trevor's obsessions about body products and swearwords and his compulsion to spit and wipe saliva on his clothes had progressively worsened over the 2 years prior to his referral. The problems had started following an incident where he fell off his bike at the end of the summer holidays just before returning to school to join a new class at the age of 8 years. Trevor's mother, Sady, was very sympathetic to his condition and offered him a great deal of reassurance and support. Trevor's father, Fran, alternated between offering reassurance and attempting to curb Trevor's compulsive behaviour by criticizing him for engaging in it or withdrawing from contact with him. Trevor found that when his father was present he anticipated criticism and so was more likely to have intrusive thoughts.

Developmental and family history. Trevor's developmental history was within normal limits. Both parents had been moderately strict with him during his upbringing and he was a very obedient child. In the family history it was noteworthy that his uncle had OCD with handwashing as the principal ritual. There was also some marital discord and tension related to management of Trevor and also to the ways in which Trevor's parents perceived each other to have failed to live up to each other's expectations.

Formulation. Trevor was a 10 year old boy with OCD. The principal obsessions were with bodily secretions and the principal compulsions with ridding himself of these by spitting. The onset of the disorder was precipitated by bicycle accident. A positive family history of OCD suggested the possible presence of a genetic predisposition and the condition may have been maintained by the parents' inconsistent, over-intrusive and critical approach to the management of the condition.

Treatment. The condition was treated with family-based graded exposure and response prevention. A hierarchy of increasingly anxiety and obsession-provoking cues was established. These included the swear words *snot, shit*, and *fuck* and saliva, mucus, urine, blood, dog faeces, and jelly from pork pies. In family treatment sessions, Trevor was repeatedly exposed to these stimuli (for example, by repeating swearwords or looking at small containers of body products) while he used parental support and relaxation exercises to reduce his anxiety (rather than engaging in compulsive spitting and wiping). Over a series of 10 sessions his OCD symptoms abated.

Table 13.1 Diagnosis of OCD

DSM-5	*ICD-10*
A. Presence of obsessions, compulsions, or both: Obsessions are defined by (1) and (2): 1. Recurrent and persistent thoughts, urges, or images that are experienced, at some time during the disturbance, as intrusive and unwanted, and that in most individuals cause marked anxiety or distress. 2. The individual attempts to ignore or suppress such thoughts, urges, or images, or to neutralize them with	The essential feature of this disorder is recurrent obsessional thoughts or compulsive acts. Obsessional thoughts are ideas, images or impulses that enter the individual's mind again and again in a stereotyped form. They are invariably distressing either because they are violent or obscene or because they are senseless and the sufferer often tries unsuccessfully to resist them. They are recognized as the individual's own thoughts even though they are repugnant and/or involuntary.

some other thought or action (i.e., by performing a compulsion).

Compulsions are defined by (1) and (2):

1. Repetitive behaviours (e.g., hand washing, ordering, checking) or mental acts (e.g., praying, counting, repeating words silently) that the individual feels driven to perform in response to an obsession or according to rules that must be applied rigidly.
2. The behaviours or mental acts are aimed at preventing or reducing anxiety or distress, or preventing some dreaded event or situation; however, these behaviours or mental acts are not connected in a realistic way with what they are designed to neutralize or prevent, or are clearly excessive.

Note: Young children may not be able to articulate the aims of these behaviours or mental acts.

B. The obsessions or compulsions are time-consuming (e.g., take more than 1 hour per day) or cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.

C. The obsessive-compulsive symptoms are not attributable to

Compulsive acts or rituals are stereotyped behaviours that are repeated again and again. They are not inherently enjoyable nor do they result in the completion of inherently useful tasks. The individual views them as preventing some objectively unlikely event often involving harm to or caused by himself or herself. Usually this behaviour is recognized as pointless and repeated attempts are made to resist it.

Autonomic anxiety symptoms are often present but distressing feelings of internal or psychic tension without obvious autonomic arousal are also common.

Depressive symptoms commonly accompany the condition.

For a definite diagnosis obsessional symptoms or compulsive acts or both must be present on most days for at least two successive

the physiological effects of a substance (e.g., a drug of abuse, a medication) or another medical condition. D. The disturbance is not better explained by the symptoms of another mental disorder (e.g., excessive worries, as in generalized anxiety disorder; preoccupation with appearance, as in body dysmorphic disorder; difficulty discarding or parting with possessions, as in hoarding disorder; hair pulling, as in trichotillomania [hair-pulling disorder]; skin picking, as in excoriation [skin-picking] disorder; stereotypies, as in stereotypic movement disorder; ritualized eating behaviour, as in eating disorders; preoccupation with substances or gambling, as in substance-related and addictive disorders; preoccupation with having an illness, as in illness anxiety disorder; sexual urges or fantasies, as in paraphilic disorders; impulses, as in disruptive, impulse control, and conduct disorders; guilty ruminations, as in major depressive disorder; thought insertion or delusional preoccupations, as in schizophrenia spectrum and other psychotic disorders; or repetitive patterns of behaviour, as in autism spectrum disorder). (For specifiers, see DSM-5, p. 237.)	weeks and be a source of distress or interference with activities. The obsessional symptoms should have the following characteristics: a. They must be recognized as the individuals own thoughts or impulses. b. There must be at least one thought or act that is still resisted unsuccessfully. c. The thought of carrying out of the act must not be inherently pleasurable. d. The thoughts, images or impulses must be unpleasantly repetitive.

Note: DSM-5 diagnostic criteria are reprinted with permission from the *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition* (APA, 2013). Copyright © 2013 American Psychiatric Association. The material in the column headed ICD-10 is a summary of the clinical description and diagnostic guidelines for obsessive compulsive disorder. For the full official WHO clinical descriptions and diagnostic guidelines for this disorder see WHO, 1992, pp. 142–144.

Obsessions and compulsions occur together in about 60% of cases, with the compulsion alleviating anxiety associated with the obsession. In 40% of cases compulsions occur in the absence of obsessions. The majority of cases have another co-morbid disorder with the most common being tic disorders (including Tourette's disorder), anxiety and depression. Other co-morbid disorders include ASD and ADHD. In children, the triad of OCD, tic disorder and ADHD may occur. OCD may also co-occur with other OCD spectrum disorders including body dysmorphic disorder (preoccupation with a specific body defect), trichotillomania (hair-pulling), and excoriation (skin-picking).

The prevalence of OCD is about 1–2%. OCD may occur from early childhood onwards, with peak ages of onset in pre-adolescence and early adulthood. The condition may be chronic and continuous or episodic, with about 1 in 3 cases showing full recovery and 1 in 10 cases having a continuous deteriorating course. Males have an earlier age of onset and are more likely to have co-morbid tic disorders.

A number of factors are associated with better outcome in OCD (Lewin, 2014). These include less severe symptoms, fewer co-morbid conditions, less neurocognitive impairment, good insight, a high expectation of treatment success, motivation to follow through on psychological treatment homework and a positive family environment. In this context a positive family environment includes viewing the child as a good person with a challenging disorder, the absence of family accommodation to OCD symptoms, and the absence of a critical or punitive family attitude to the child because of their OCD symptoms.

OCD is distinct from the normal rituals of childhood which are prominent in the pre-school years and wane by the age of 8 or 9 years, when hobbies involving collecting and ordering selected objects, toys and trinkets probably take their place.

OCD may be distinguished from tic disorders. Obsessions do not occur in tic disorders although there may be premonitory urges. Tics are sudden, brief, and involuntary. Compulsions are of longer duration and voluntary. OCD may also be distinguished from eating disorders where food-related rituals may occur, since these food-related rituals are not experienced as ego dystonic. The same may be said of gambling, repetitive sexual behaviour problems (such as exhibitionism) and drug misuse.

Theories

Biological and psychological hypotheses have been suggested to explain OCD. A summary of the main features of these positions is set out in Table 13.2.

Biological theories

There are three main interrelated theories about the biological basis for OCD. These point to genetic factors, structural and functional abnormalities within the cortico-basal-ganglia-thalamo-cortical (CBGTC) circuitry, and dysregulation of serotonin and other neurotransmission systems as important in the aetiology of OCD (American Academy of Child and Adolescent Psychiatry, 2012a; NICE, 2005b; Rapoport & Shaw, 2015; Storch & McKay, 2014; Storch et al., 2007).

Table 13.2 Theories and treatments for OCD

Type	*Theory*	*Theoretical principles*	*Principles of treatment*
		A predisposition to OCD is inherited and the condition	

Biological theories	**Genetic hypothesis**	develops in children exposed to particular environmental conditions, probably involving particular parenting styles, stressful life events or infections.	Genetic counselling and family stress management.
	Cortico-basal-ganglia-thalamo-cortical (CBGTC) hypothesis	A structural problem in the CBGTC underpins OCD.	Surgery to disconnect the basal ganglia from the frontal cortex will prevent the occurrence of obsessions and compulsions.
	Neurotransmission hypothesis	OCD symptoms occur due to dysregulation of the serotonin and other neurotransmission systems.	Treat OCD with serotonin reuptake inhibitors.
	Temperament and trait theories	Temperamental characteristics (such as behavioural inhibition) and personality traits (such as neuroticism and perfectionism) predispose people to developing OCD and may also maintain it.	Psychological interventions to address temperamental characteristics and personality traits associated with OCD.
		Repressed sexual-aggressive impulses associated with early parent–child conflict over toilet training are *displaced and substituted* by less unacceptable	Individual psychodynamic

Psychological theories	**Psychoanalytic theory**	thoughts or impulses. When these intrude into consciousness, they are experienced as ego-alien because they have been disowned or *isolated* and cause anxiety. The anxiety is managed by carrying out a compulsive ritual to *undo* or cancel out the undesirable impulse.	psychotherapy to interpret the defences and work through the anxiety about the repressed impulses.
	Behavioural theory	Through a process of classical conditioning specific cues come to elicit anxiety, and compulsive rituals which develop to alleviate this anxiety are maintained by a process of negative reinforcement.	Exposure to cues that elicit obsessions and response prevention where the person is prevented from carrying out anxiety-reducing compulsive rituals.
	Cognitive-behavioural theory	Normal intrusive thoughts, cued by exposure to specific stimuli, are mis-appraised and this causes anxiety. Appraisals are due to cognitive styles characterized by over-responsibility, thought-action-fusion and meta-cognitive beliefs about the meaning and danger associated with	Exposure and response prevention coupled with cognitive therapy in which problematic appraisals are addressed.

	intrusive thoughts, and safety associated with compulsive rituals. Compulsions alleviate anxiety.	
Family systems hypothesis	Family lifecycle transitions precipitate the onset of OCD in individuals whose socialization has rendered them vulnerable to developing obsession and compulsions. The family become involved in patterns of interaction that maintain the child's compulsive ritualistic behaviour because of their beliefs about OCD and parenting and because symptom-maintaining patterns of interaction may meet their needs.	Family work in which OCD is reframed as a condition to be managed rather than an intrinsic characteristic of the child deserving parental punishment or over-intrusive concern. Create opportunities for the family to break symptom-maintaining behavioural patterns and coach parents to use behavioural or other methods to help their child manage OCD.

Genetic hypothesis. The genetic hypothesis proposes that a predisposition to OCD is inherited and the condition develops in children exposed to particular environmental conditions, probably involving particular parenting styles, stressful life events or infections. Available evidence indicates that genetic factors contribute to the aetiology of OCD (Taylor, 2014). The mode of transmission is probably polygenetic. With regard to candidate genes, a meta-analysis of adult studies found that OCD was associated with serotonin-related polymorphisms (5-HTTLPR and HTR2A) and, in males only, with polymorphisms involved in catecholamine modulation (COMT and MAOA) (Taylor, 2014). A review of studies of children with OCD implicated the glutamate transporter gene SLC1A1 in the aetiology of childhood OCD (Walitza et al., 2010). There is evidence for the aggregation of OCD and Tourette's disorder within families, particularly those with childhood-onset OCD. It is probable that in childhood-onset OCD, what is transmitted is a predisposition to develop either disorder which may most usefully be conceptualized as an OCD–tic disorder spectrum (O'Rourke et al., 2009).

The CBGTC hypothesis. The CBGTC hypothesis proposes that structural or functional abnormalities in the CBGTC circuitry subserves the symptoms of OCD. The CBGTC circuits link the basal ganglia, the pre-frontal cortex (particularly orbitofrontal and anterior cingulate regions) and the thalamus. The hypothesis proposes that over-activity of the pre-frontal cortex and thalamus subserves the initiation and maintenance of obsessional worrying, and over-activity of the basal ganglia subserves stereotyped compulsive behaviour patterns typical of people with OCD. Six lines of research based on studies of children and adults support this theory (Brem et al., 2012; Lapidus et al., 2014; Maia et al., 2008; Rapoport & Shaw, 2015). First, surgical disruption of the CBGTC circuit alleviates chronic OCD in adults. Second, OCD often develops in individuals who sustain damage to the basal ganglia due to head injury or stroke. Third, there is a high incidence of OCD in diseases associated with damage to the basal ganglia including Sydenham's chorea, Huntington's chorea, Wilson's disease, and Parkinson's disease. Fourth, OCD and related conditions including tic disorders sometimes develop as a consequence of an autoimmune reaction in which antibodies to Group A beta-haemolytic streptococcus attack and damage the basal ganglia. These are termed paediatric autoimmune neuropsychiatric disorders associated with streptococcal infections (PANDAS). Children with this type of OCD may respond rapidly to immunomodulatory agents such as intravenous immunoglobulin and plasma exchange. Fifth, structural neuroimaging studies show anatomical abnormalities in the basal ganglia, thalamus and pre-frontal cortex of children and adults with OCD. Sixth, functional neuroimaging studies show hyperactivation of the pre-frontal cortex (particularly orbitofrontal and anterior cingulate regions) at rest, and under symptom provocation in people with OCD and alleviation of this following successful treatment.

Neurotransmission hypothesis. The neurotransmission hypothesis proposes that the symptoms of OCD are subserved by dysregulation of serotonergic and other neurotransmission systems. There is strong evidence for a dysregulation of the serotonin system and some evidence for the dysregulation of dopamine and glutamate neurotransmission systems in OCD (Rapoport & Shaw, 2015). Both child and adult cases of OCD have been shown to respond to selective serotonin reuptake inhibitors (SSRIs) such as clomipramine, fluoxetine, fluvoxamine, paroxetine and sertraline (Stewart & Stachon, 2014).

Psychological theories

Psychological theories have been developed within the temperament/trait psychology, psychoanalytic, cognitive behavioural and family systems traditions. The main tenets of some theories from each of these traditions is set out in Table 13.2.

Temperament and trait theories. Temperament and trait theories propose that specific temperamental characteristics or psychological traits predispose people to developing OCD and may also maintain the condition. In support of this hypothesis, the temperamental characteristic, behavioural inhibition and personality traits of neuroticism and perfectionism have been found to correlate with OCD (Coles et al., 2006; Egan et al., 2010; Kagan, 2010; Kotov et al., 2010). Children with behavioural inhibition show fearfulness, restraint, reticence and social withdrawal in novel situations including those involving unfamiliar people, places and objects. Neuroticism refers to negative emotionality and lack of emotional stability. Perfectionism is the tendency to adhere to very high standards and experience distress if these standards are not reached. Most studies of these constructs have been conducted with adults rather than children. Studies of behavioural inhibition and neuroticism provide fairly strong evidence that these characteristics are predisposing factors rather than correlates or consequences of OCD.

Psychoanalytic theory. From a psychoanalytic perspective OCD is explained as the sequelae of toilet training battles (Freud, 1909b). According to psychoanalytic theory, during the anal phase of development children become angry with their parents' insistence that they use the toilet in an appropriate way. Attempts to express these aggressive impulses are met with sanctions from the parents and so the aggression is repressed. In later life these repressed sexual-aggressive impulses attempt to find expression but this causes anxiety. The aggressive impulses and thoughts are *displaced and substituted* by less unacceptable thoughts or impulses. When these intrude into consciousness, they are experienced as ego-alien because they have been disowned or *isolated*. The anxiety is managed by carrying out a compulsive ritual to *undo* or cancel out the undesirable impulse.

Surveys of people with OCD have invariably failed to identify a higher rate of such parent–child conflicts concerning toilet training in comparison with controls (Milby & Weber, 1991) and there is little evidence that children with OCD can benefit from interpretative psychoanalytic psychotherapy. However, the notion that compulsions reflect the use of the defence mechanism of undoing fits with both clinical observations and with the cognitive-behavioural explanation of OCD.

Behavioural theory. In behavioural theory it is proposed that through a process of classical conditioning specific cues (such as dirt) come to elicit anxiety, and compulsive rituals (such as washing) which develop to alleviate, escape from or avoid this anxiety are maintained by a process of negative reinforcement (Mowrer, 1960). Treatment of OCD with exposure and response prevention (E/RP) is based on this theory. E/RP involves prolonged exposure to cues that elicit obsessions and related anxiety (such as dirt) coupled with prevention of compulsive rituals (such as handwashing). Psychological treatment in which E/RP is the central component is currently the first-line treatment of choice for paediatric OCD because of good evidence of its effectiveness (Freeman et al., 2014; Watson & Rees, 2008). While E/RP continues to be the mainstay of effective psychological treatment of OCD, it is accepted that Mowrer's simple behavioural two-stage theory has limitations because of its failure to explain a number of phenomena. These include the absence of traumatic classical conditioning experiences in the history of many OCD patients, the small number of categories of stimuli that elicit obsessions, and the fact that the expectation or over-prediction of fear, the expected absence of safety signals, or the urge to feel 'just so' rather than cue-elicited fear are usually the main factors motivating compulsive behaviour (Rachman, 2013). The behavioural conditioning theory of OCD has been superseded by cognitive-behavioural explanations that give primacy to the role of appraisals and expectations in the OCD process.

Cognitive-behavioural theory. Cognitive-behavioural explanations of OCD argue that normal intrusive thoughts, cued by exposure to specific stimuli, are mis-appraised in a way that causes anxiety and this is alleviated by engaging in compulsive rituals. Cognitive models have been developed which point to the role of over-responsibility (Salkovskis, 1998), thought-action-fusion (Rachman, 1993) and meta-cognitive beliefs (Simons et al., 2006; Wells, 2009) in the aetiology of OCD. Salkovskis (1998) proposed that people with OCD interpret their intrusive thoughts as meaning that they will be responsible for harm to themselves or others unless they engage in compulsions to avoid that harm. Rachman (1993) proposed that OCD occurs when a person experiences thought-action-fusion, where they interpret their thoughts and their actions as equivalent. With moral-thought-action-fusion, having an intrusive thought about an unacceptable behaviour is appraised as morally equivalent to carrying out that behaviour. For example, the person believes that thinking about hitting someone is the same as actually hitting someone. With likelihood-thought-action-fusion, thinking about a bad situation is appraised as increasing the probability of its occurrence. For example, if I think of someone having an accident, this may make an accident happen. Wells (2009) proposed that obsessional thoughts are negatively interpreted because of meta-cognitive beliefs about the meaning and dangerous consequences of having these thoughts. Meta-cognitive beliefs about intrusive OCD thoughts include thought-action-fusion beliefs such as 'if I think I will hit him, I will hit him'; thought-event-fusion beliefs such as 'if I think an accident will happen, it will happen'; and thought-object-fusion beliefs, such as 'if I think a bad thing and touch this object, the next person who touches this object will be contaminated by my bad thoughts.' The main meta-cognitive belief about compulsions (including both rituals and mental strategies to neutralize or suppress intrusive thoughts) is that these must be carried out to prevent the dangerous consequences of not doing so and allowing the intrusive

OCD thoughts to have their negative effects on the world.

According to cognitive-behavioural theories, episodes of OCD are usually precipitated by stressful life events, illness or family disruption in young people who are vulnerable to developing OCD due to a range of factors including genetically determined hyperarousability; depressed mood; socialization experiences that have led to the development of high moral standards; and a belief system involving specific convictions about the relationships between thought and action, control and responsibility, and self-doubt or low self-efficacy (Rachman, 2013). The cognitive-behavioural treatment of OCD is usually based upon assessment of the stimuli which elicit obsessions, the appraisals that are made of these obsessions, the anxiety associated with these appraisals, the compulsive rituals and cognitive strategies used to reduce the anxiety, and the meta-cognitive beliefs that inform appraisals compulsions. Treatment based on the cognitive-behavioural model may include both behavioural and cognitive strategies. E/RP is the main behavioural intervention. Cognitive therapy involves helping the young person gather evidence, through behavioural experiments, that challenges OCD beliefs and appraisals about danger associated with not carrying out compulsions and then noting the impact of this evidence on the degree to which they are certain that the beliefs are true. Meta-cognitive therapy involves helping young people recognize and alter the thinking styles and strategies that they use which are guided by their meta-cognitive beliefs. Studies of children and adults show that OCD is associated with over-responsibility, thought-action-fusion, and OCD-maintaining meta-cognitive beliefs (Cartwright-Hatton et al., 2011). Substantial evidence exists for the vulnerability factors, precipitating factors and the self-reinforcing nature of the vicious cycles of obsessions and compulsions that typify OCD in adults, and a small body of evidence on children with OCD is now emerging (Rapoport & Shaw, 2015). However, there is good evidence for the effectiveness of various cognitive-behavioural programmes combining E/RP and cognitive interventions and only limited evidence for the effectiveness of cognitive therapy (without E/RP) for children with OCD (Freeman et al., 2014; Watson & Rees, 2008).

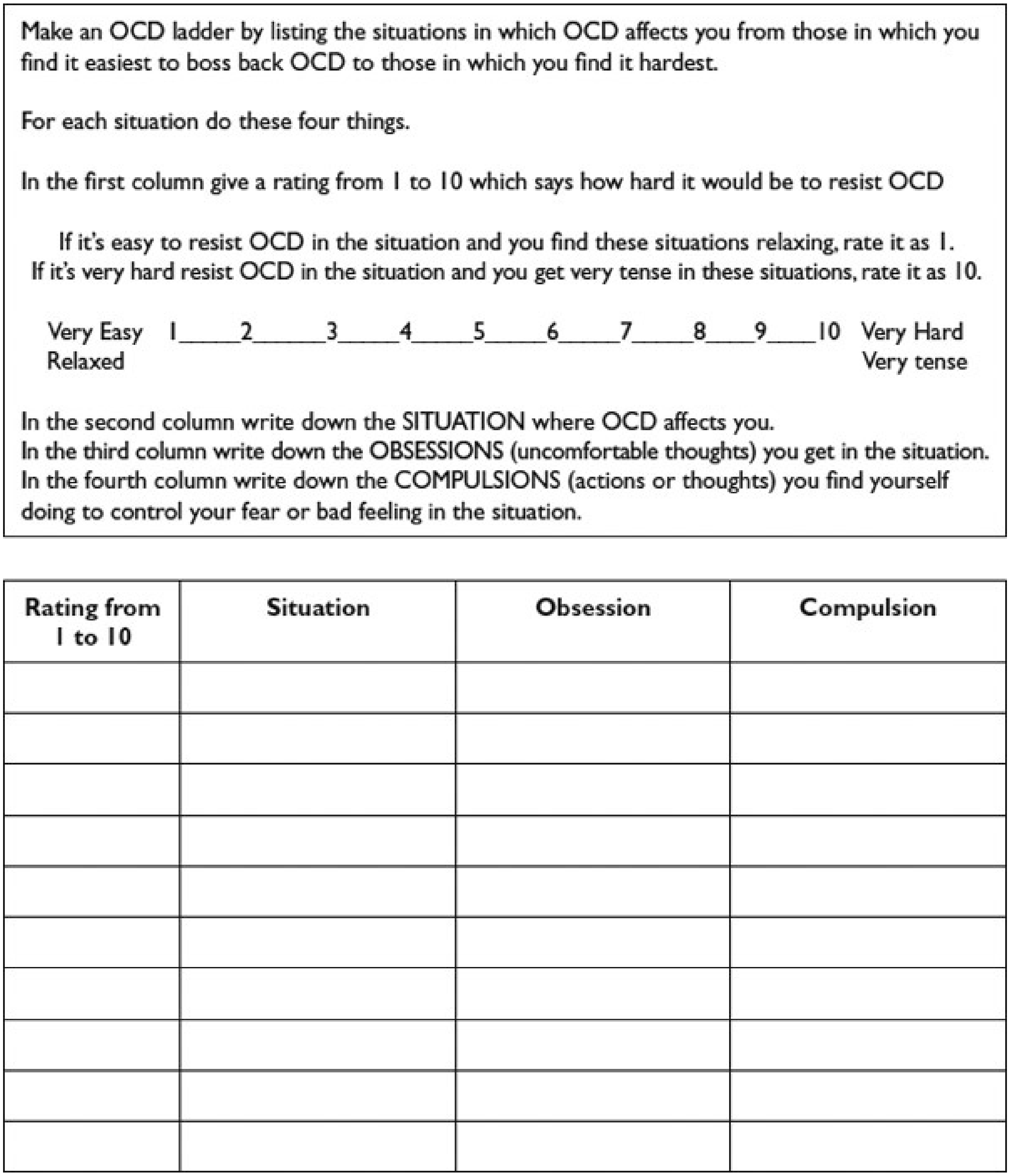
Family systems theory. The family systems theory of OCD has been less well articulated than the positions taken within the psychoanalytic and cognitive-behavioural traditions (Calvocoressi et al., 1999; Dalton, 1983; O'Connor, 1983; Peris et al., 2008). Family systems approaches to OCD point to socialization experiences as the primary predisposing factors and family lifecycle transitions as the principle precipitating factors for OCD. Central to family systems explanations is the idea that the symptomatic child and other family members become involved in patterns of interaction that maintain the child's compulsive ritualistic behaviour. Beliefs about the best way to manage the child's condition specifically or childrearing generally may underpin these patterns of interaction that inadvertently maintain the child's compulsive behaviour. Engaging in symptom-maintaining patterns of interaction may meet the needs of other family members. For example, it may meet a mother's need to be nurturing, a father's need to be a disciplinarian, a couple's need to avoid marital intimacy or a sibling's need to leave home.

Treatment premised on a family systems model aims to help the parents and child break the pattern of interaction in which the compulsive rituals are embedded and to alter the belief systems that underpin these patterns. The belief systems may be altered by educating the family about OCD so that it is re-framed as a condition to be managed rather than an intrinsic characteristic of the child deserving either parental punishment or over-intrusive concern. Problem-maintaining patterns of family interaction may be disrupted by creating opportunities for the whole family to replace compulsive rituals and related family behaviours with alternative adaptive behaviours. Parents may be coached in how to break problem-maintaining behaviour patterns by using behavioural or other methods to empower their children. Response replacement, exposure and response prevention, anxiety management training and reward programmes may all be usefully employed by parents to empower their children to manage OCD.

A growing body of evidence points to the importance of relatives involvement in rituals and high levels of expressed emotion involving criticism and over-involvement as maintaining factors and to the value of including family sessions as a routine part of cognitive-behavioural treatment programmes (Freeman et al., 2014; Peris et al., 2008; Thompson-Hollands et al., 2014)

Assessment

When assessing symptomatology in cases of OCD particular attention should be paid to details of the specific stimuli that elicit the intrusive thoughts. For treatment planning these stimuli are ordered into a hierarchy using the form in Figure 13.1. In addition, particular attention should be paid to the nature of the intrusive thoughts and the meaning of these for the child along with the precise way in which the compulsive rituals bring about relief. Patterns of family interaction in which these symptoms are embedded should also be clarified. Children may be asked to keep a daily diary noting down the time and situations in which obsessions and compulsion occur, the amount of time they spend engaged in these, family involvement in rituals and the associated levels of distress on a 10-point scale. A range of psychometric instruments have been developed for assessing various aspects of paediatric OCD (Iniesta-Sepúlveda et al., 2013). Some of these are described in Table 13.3. Aetiological factors deserving consideration in the clinical assessment of OCD are presented in Figure 13.2.



Make an OCD ladder by listing the situations in which OCD affects you from those in which you find it easiest to boss back OCD to those in which you find it hardest.

For each situation do these four things.

In the first column give a rating from 1 to 10 which says how hard it would be to resist OCD

If it's easy to resist OCD in the situation and you find these situations relaxing, rate it as 1.
If it's very hard resist OCD in the situation and you get very tense in these situations, rate it as 10.

Very Easy 1_____2_____3_____4_____5_____6_____7_____8_____9_____10 Very Hard
Relaxed Very tense

In the second column write down the SITUATION where OCD affects you.
In the third column write down the OBSESSIONS (uncomfortable thoughts) you get in the situation.
In the fourth column write down the COMPULSIONS (actions or thoughts) you find yourself doing to control your fear or bad feeling in the situation.

Rating from 1 to 10	**Situation**	**Obsession**	**Compulsion**

Figure 13.1 OCD ladder

Table 13.3 Psychometric instruments that may be used as an adjunct to clinical interviews in the assessment of OCD

Instrument	*Publication*	*Comments*
Children's Yale-Brown Obsessive Compulsive	Scahill, L., Riddle, M. A., McSwiggin-Hardin, M., Ort, S., King, R. A., Goodman, W. K., Cicchetti, D., & Leckman, J. (1997). Children's Yale-Brown Obsessive Compulsive Scale: Reliability and validity. *Journal of the American Academy of Child & Adolescent Psychiatry*, 36, 844–852.	This is the most widely used clinician administered rating scale for assessing OCD. Four-point scales are used to rate 35 obsessions and 36

Scale (CY-BOCS)	Reprinted in March, J., & Mulle, K. (1998). *OCD in Children and Adolescents: A Cognitive Behavioural Treatment Manual.* New York: Guilford.	rituals on time spent, interference, distress, resistance and perceived control.
Obsessive Compulsive Inventory – Child Version (OCI-CV)	Foa, E., Coles, M., Huppert, J., Pasupuleti, R., Franklin, M., & March, J. (2010). Development and validation of a child version of the obsessive compulsive inventory. *Behaviour Therapy, 41*, 121–132.	This is the best available self-report instrument for assessing OCD in 7–17 year olds. This 21-item scale yields scores for checking, obsessing, hoarding, washing, order and neutralizing.
Children's Florida Obsessive-Compulsive Inventory (C-FOCI)	Storch, E., Khanna, M., Merlo, L., Loew, B., Franklin, M., Reid, J., Goodman, W., & Murphy, T. (2009). Children's Florida Obsessive-Compulsive Inventory: Psychometric properties and feasibility of a self-report measure of obsessive-compulsive symptoms in youth. *Child Psychiatry and Human Development, 40*, 467–483.	This self-report instrument contains 17 obsession and compulsion yes/no items which yield a symptom checklist score and a 5-item severity scale which yields a severity score.
Children's Obsessional Compulsive Inventory (COCI)	Shafran, R., Frampton, I., Heyman, I., Reynolds, M., Teachman, B., & Rachman, S. (2003). The preliminary development of a new self-report measure for OCD in young people. *Journal of Adolescence, 26*, 137–142.	This self-report instrument contains 19 items which are rated on 3-point scales (from not at all present to present a lot). Impairment due to obsessions and compulsions are each evaluated with five items. There are child and parent versions of the COCI.
Leyton Obsessional Inventory – Child Version	Berg, C., Rapoport, J., & Flament, M. (1986). The Leyton Obsessional Inventory – Child Version. *Journal of*	Contains 44 statements concerning obsessions and compulsions. They are scored as present or absent, extent to which

(LOI-CV)	*the American Academy of Child Psychiatry, 25*, 84–91.	they are resisted (0–3), and extent to which they interfere in the child's life (0–3).
Child OC Impact Scale – Child and Parent (COIS-C/P)	Piacentini, J., Bergman, R., Keller, M., & McCracken, J. (2003). Functional impairment in children and adolescents with obsessive-compulsive disorder. *Journal of Child and Adolescent Psychopharmacology, 13*, S61–S69.	The COIS-C/P is a 56-item, parent- or child-report questionnaire that assesses OCD-related impairment in school, social, and home/family activities. Ratings for items are given on 4-point scales.
Obsessive Beliefs Questionnaire – Child Version (OBQ-CV)	Coles, M., Wolters, L., Sochting, I., de Haan, E., Pietrefesa, A., & Whiteside, S. (2010). Development and initial validation of the Obsessive Belief Questionnaire – Child Version (OBQ-CV). *Depression and Anxiety, 27*, 982–991.	This 44-item self-report scale assess OCD-related beliefs and yields scores for responsibility/threat estimation, perfectionism/certainty, and importance/control of thoughts.
Family Accommodation Scale for Obsessive-Compulsive Disorder (FAS)	Calvocoressi, L., Mazure, C. M., Kasl, S. V. Skolnick, J., Fisk, D., Vegso, S. J., et al. (1999). Family accommodation of obsessive-compulsive symptoms: Instrument development and assessment of family behaviour. *Journal of Nervous and Mental Disease, 187*, 636–642.	The first section is an OCD symptom checklist which identifies patient symptoms of which the family member is aware. The second section is a 12-item semi-structured interview which assesses accommodation to these symptoms and associated distress.
Parental Attitudes and Beliefs Scale (PABS)	Peris, T. S., Benazon, N., Langley, A., Roblek, T., & Piacentini, J. (2008). Parental attitudes, beliefs, and responses to childhood obsessive compulsive disorder: The parental	This 42-item self-report questionnaire assesses parents' behaviours and beliefs related to their children's OCD and yields scores for

	attitudes and behaviours scale. *Child and Family Behaviour Therapy*, *30*, 199–214.	accommodation, empowerment, and hostility.

Predisposing factors

From Figure 13.2 it may be seen that both personal and contextual predisposing factors deserve consideration in the assessment of OCD. Genetic vulnerability is the main personal biological predisposing factor in cases of OCD and this may give rise to structural and functional abnormalities in CBGTC circuitry. A family history of OCD or tic disorders may be taken as indicative of a genetic predisposition. A temperament characterized by behavioural inhibition, high levels of the neuroticism personality trait, perfectionism, beliefs in over-responsibility, beliefs that negative thoughts automatically become negative actions, low self-esteem and depression are the principal psychological personal predisposing factors for OCD. Contextual predisposing factors include trauma such as child abuse, and conditioning experiences where cues such as dirt that elicit anxiety-laden obsessional thoughts were paired with anxiety-provoking stimuli such as injury, threats or punishment. Socialization experiences with parents who espoused high, rigid moral standards may underpin the beliefs in over-responsibility and the inevitability of negative thoughts leading to negative actions mentioned previously.

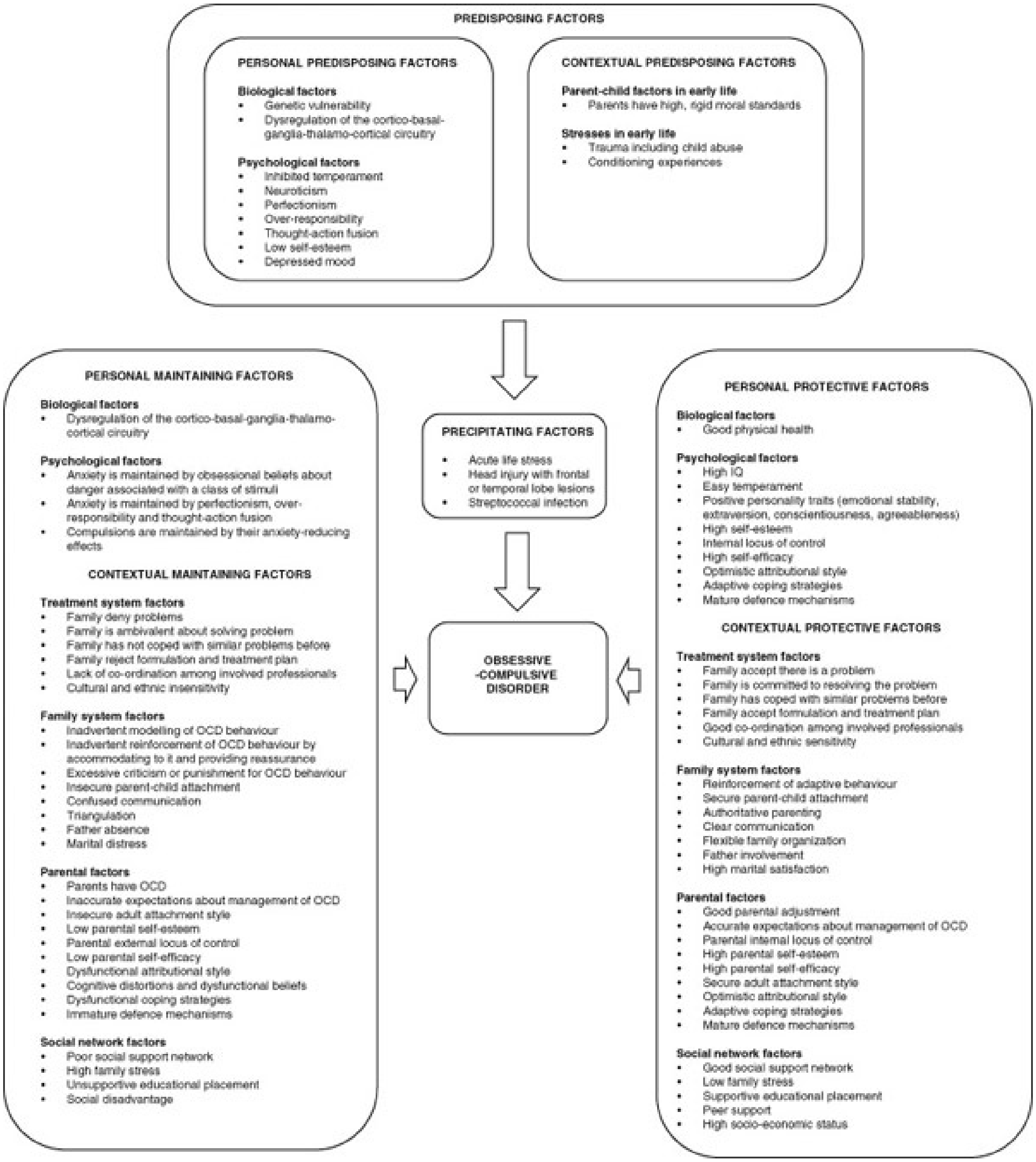


Figure 13.2 Factors to consider in OCD

Precipitating factors

Psychosocial precipitating factors for OCD include stressful life events and family lifecycle transitions. At a biological level, OCD may be precipitated by head injury with frontal or temporal lobe lesions or by streptococcal infection.

Maintaining factors

Personal and contextual factors may be involved in the maintenance of OCD. At a biological level dysregulation of CBGTC circuitry involving serotonin and other neurotransmission systems may maintain OCD. The anxiety-reducing effects of compulsive rituals when the youngster is exposed to cues that elicit anxiety-laden obsessions mean that OCD as a syndrome is intrinsically self-maintaining. Belief systems involving perfectionism, thought-action-fusion and over-responsibility may also maintain OCD. Parental accommodation to children's compulsions or providing children with reassurance following the execution of a compulsive ritual may maintain compulsions through the process of inadvertent positive reinforcement. Parental criticism or punishment of children for engaging in compulsions, on the other hand, may maintain OCD by eliciting obsessions. Both intrusive reassuring responses and punitive critical responses to the child are typically associated with parental beliefs that the OCD symptomatology is an essential rather than an accidental feature of the child. That is, parents come to see the child in a problem-saturated way, where the symptoms are not simply a minor aspect of the child but a central feature of his or her identity. The child comes to be treated as if he or she is essentially ill (in instances where parents adopt an over-involved reassuring position) or essentially disobedient or annoying (where parents adopt a punitive critical position). Parents who experience marital discord and who have unresolved conflicts about intimacy or power within the marital relationship may avoid discussing these conflicts but routinely argue about how best to manage their child's OCD problems. That is, they may become involved in a pattern of triangulation with the child. It is not unusual for such triangulation to involve intense interaction between the mother and child, with the father becoming increasingly peripheral as the problems progress. Insecure parent–child attachment and confused family communication may also maintain OCD.

Where parents themselves have OCD which goes untreated, their obsessional conversation and ritualistic actions may validate the child's symptoms and the child's behaviour may be maintained by a process of modelling. Parents may become involved in problem-maintaining interactions with their children if they have inaccurate knowledge and expectations about the appropriate management of OCD and related psychological processes. Where parents have an insecure adult attachment style, low self-esteem, low self-efficacy, an external locus of control, dysfunctional attributional style, cognitive distortions, dysfunctional beliefs, immature defences and poor coping strategies, they may lack the personal resources to deal constructively with their child's OCD, and in this sense these parental attributes may maintain the child's problems.

OCD may be maintained by high levels of stress, limited support and social disadvantage within the family's wider social system, since these features may deplete parents' and children's personal resources for dealing constructively with OCD. Educational placements which are poorly resourced and where teaching staff have little time to devoted to home–school liaison meetings may also maintain OCD.

Within the treatment system, a lack of co-ordination and clear communication among involved professionals including teachers, psychologists, paediatricians and so forth may maintain children's OCD symptomatology. Where co-operation problems between families and treatment teams develop and families deny the existence of the problems, the validity of the diagnosis and formulation or the appropriateness of the treatment programme, then the child's difficulties may persist. Treatment systems that are not sensitive to the cultural and ethnic beliefs and values of the youngster's family system may maintain OCD by inhibiting engagement or promoting dropout from treatment and preventing the development of a good working alliance between the treatment team, the youngster and his or her family. Parents' lack of experience in dealing with similar problems in the past is a further factor that may compromise their capacity to work co-operatively with the treatment team and so may contribute to the maintenance of the child's OCD symptoms.

Protective factors

The probability that a treatment programme for OCD will be effective is influenced by a variety of personal and contextual protective factors. It is important that these be assessed and included in the later formulation since it is protective factors that usually serve as the foundation for therapeutic change. Good health, a high IQ, an easy temperament, positive personality traits (including emotional stability, extraversion, conscientiousness and agreeableness), high self-esteem, an internal locus of control, high self-efficacy and an optimistic attributional style are all important personal protective factors. Other important personal protective factors include mature defence mechanisms and functional coping strategies, particularly good problem-solving skills and a capacity to make and maintain friendships.

Within the family, better adjustment of children occurs where parents reinforce adaptive behaviour, especially all attempts for the child to expose themselves to cues that elicit obsessions, and then prevent themselves from engaging in compulsive rituals. Secure parent–child attachment and authoritative parenting are central protective factors, particularly if they occur within the context of a flexible family structure in which there is clear communication and high marital satisfaction and both parents share the day-to-day tasks of childcare.

Good parental adjustment is also a protective factor. Where parents have an internal locus of control, high self-efficacy, high self-esteem, internal working models for secure attachments, an optimistic attributional style, mature defences and functional coping strategies they are better resourced to manage their children's OCD constructively. Of course, accurate knowledge and expectations about OCD and its management are also protective factors.

Within the broader social network, high levels of support, low levels of stress and membership of a high socio-economic group are all protective factors for children with OCD. Where families are embedded in social networks that provide a high level of support and place few stressful demands on family members, then it is less likely that parents' and children's resources for dealing with OCD will become depleted. A well-resourced educational placement may also be viewed as a protective factor. Educational placements where teachers have a clear understanding of OCD and have sufficient time and flexibility to attend home–school liaison meetings contribute to positive outcomes for children with OCD. Where children maintain friendships with their peers and continue to engage in normal recreational activities despite their OCD, this is also a protective factor.

Within the treatment system, co-operative working relationships between the treatment team and the family and good co-ordination of multi-professional input are protective factors. Treatment systems that are sensitive to the cultural and ethnic beliefs and values of the youngster's family are more likely help families engage with and remain in treatment and foster the development of a good working alliance. Families are more likely to benefit from treatment when they accept the formulation of the problem given by the treatment team and are committed to working with the team to resolve it. Where families have successfully faced similar problems before, then they are more likely to benefit from treatment, and in this sense previous experience with similar problems is a protective factor.

Formulation

Information from the intake interview, the psychometric assessment instruments and self-monitoring forms may be integrated into a formulation to guide treatment planning. A formulation in a case of OCD should link the predisposing factors to the occurrence of this episode of the condition via an identifiable precipitating event. In formulating the way symptoms are maintained, eliciting stimuli should be linked to intrusive thoughts and images, and these in turn to anxiety and anxiety-reducing compulsions. Patterns of interaction that maintain these compulsions and involve parents, siblings, peers and school personnel should also be specified. An example of a formulation is given in the penultimate paragraph of the case example in Box 13.1.

Treatment

Effective treatment for OCD in children is multi-modal and includes psychological intervention with a family-oriented E/RP programme coupled with psychopharmacological interventions with SSRIs (such as clomipramine, fluoxetine, fluvoxamine, paroxetine and sertraline) if the psychological intervention programme alone is ineffective or if the symptoms are particularly severe (American Academy of Child and Adolescent Psychiatry, 2012a; Franklin et al., 2013; Freeman et al., 2014; March et al., 1997; NICE, 2005b; Rapoport & Shaw, 2015; Stewart & Stachon, 2014; Storch & McKay, 2014; Storch et al., 2007). March and Mulle's (1998; March, 2006) and Barrett et al.'s (2004) psychological treatment protocols have both been empirically validated and draw together effective practices from the cognitive-behavioural and family systems traditions. They are conducted over about 12–18 weekly, 1-hour sessions in an individual or group format with one to four later follow-up sessions at intervals of approximately 1, 3, 6 and 12 months. The principal difference between the two approaches is the greater level of family involvement in Barrett's programme, where parallel parent and sibling sessions occur throughout the programme in addition to a couple of whole-family sessions. March and Mulle include parents in only four sessions. Barrett's programme is based on March and Mulle's programme and aims to retain the psychoeducational and E/RP components while strengthening the family involvement component. The following are the key components of these programmes:

- psychoeducation
- externalizing the problem
- mapping OCD
- exposure and response prevention
- cognitive therapy
- family involvement
- relapse prevention and graduation.

Psychoeducation. Psychoeducation should be offered in the first treatment session, but it is also an underlying theme throughout treatment. The goal of psychoeducation is to help the child, parents and siblings understand OCD as a neurobehavioural disorder and to outline the rational for the treatment programme. OCD as a neurobehavioural disorder entails two main problems. First, the nervous system mistakenly makes the child experience a great deal of fear, distress, doubt or discomfort in response to situations that should only elicit a low level of fear (such as touching something dirty). This may be explained metaphorically by saying that the *fear volume control* of the nervous system is damaged, and so where low levels of fear should be experienced, high levels of fear occur because the volume control knob is not working properly. The second problem with OCD as a neurobehavioural disorder is that it makes children carry out actions (compulsions) to reduce the fear; for example repeated handwashing. The more the child carries out these actions, the stronger OCD becomes.

An analogy may be made with a medical illness such as diabetes. In diabetes the pancreas fails to produce enough insulin, and so part of the treatment involves taking extra insulin. In OCD, the brain fails to produce enough serotonin, and so a drug that increases the level of serotonin in the brain (an SSRI) must be taken. Brain imaging studies by Jeff Schwartz and Lew Baxter in the US have shown that after effective drug treatment and cognitive-behavioural therapy, the brain functions differently (Brem et al., 2012; Rauch & Baxter, 1998; Schwartz, 1996). In diabetes people have to make changes to their lifestyle by carefully controlling their diet and exercise. With OCD, people have to carefully carry out exercises in which they put themselves in situations that make them have uncomfortable OCD thoughts (obsessions), and then tolerate this discomfort without carrying out compulsive rituals until the discomfort subsides. With diabetes and OCD, not everyone gets completely better. So, some people with diabetes and OCD attend long-term support groups or family therapy to help them cope with the residual symptoms.

The psychological part of treatment aims to help the child *boss OCD back*. Treatment is a series of coaching session in which the child is taught the skills to fight OCD and run 'him' off the child's land. Parent sessions aim to help parents understand this coaching process and support the child in overcoming OCD. Also the amount of discomfort, fear or distress that particular situations evoke may be reduced by taking a serotonin reuptake inhibitor (such as clomipramine or fluoxetine). This helps to increase the level of serotonin in the brain, which is a bit low in youngsters with OCD. It may be metaphorically explained to children that medication can have some impact on the *fear volume control* but it is their job to learn how to *boss OCD back*.

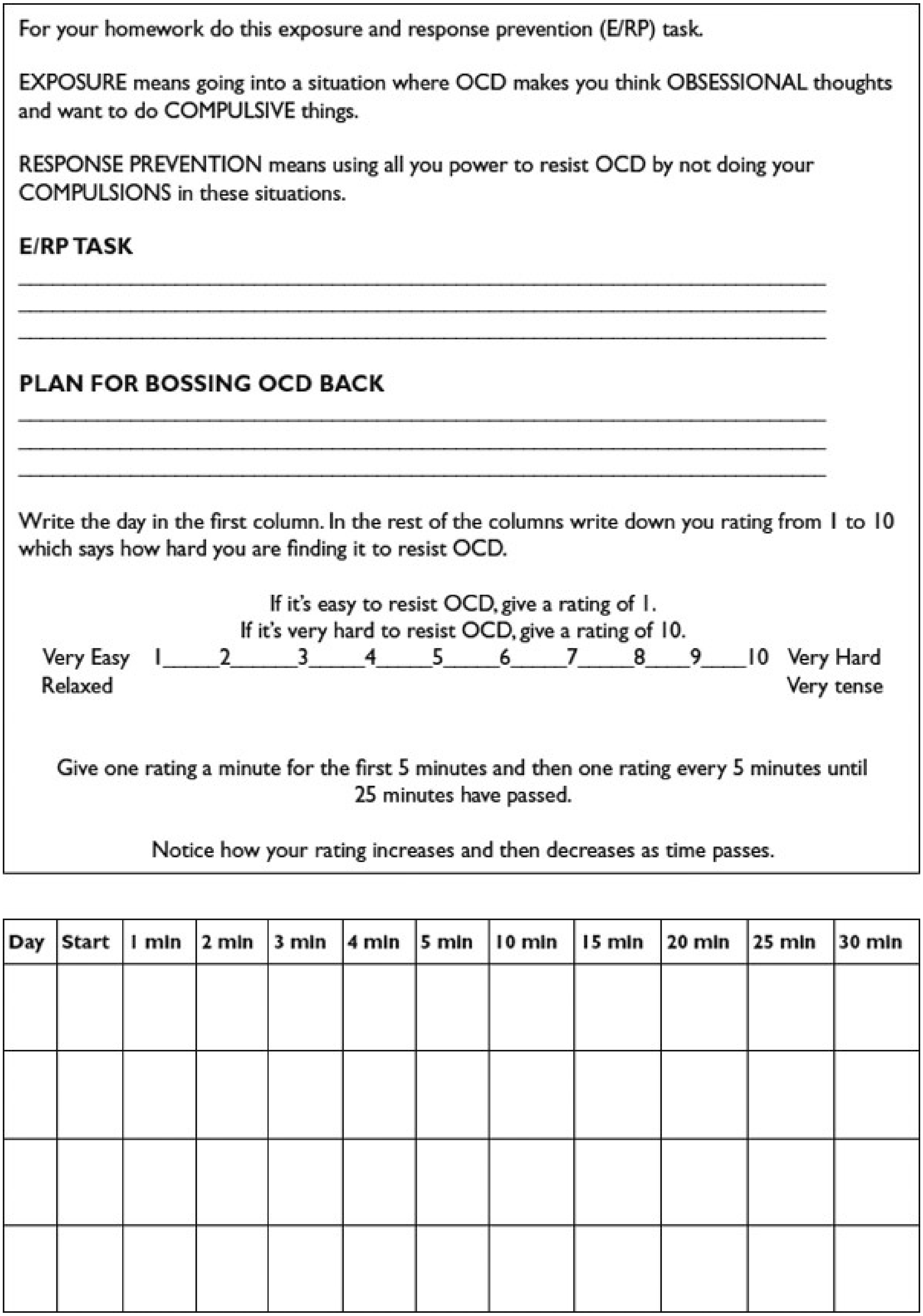
The effectiveness and costs and benefits of treatment may also be outlined in the first session. The family based behavioural programme has been shown to be effective in approximately 2 out of 3 cases. Apart from the side effects of medication (dry mouth and constipation), there are no known negative effects of the programme. It is useful in the early sessions of treatment to give families information on support groups, websites and self-help literature. A good parent education package is contained in March and Mulle (1998).

Externalizing the problem. Externalizing the problem follows directly from psychoeducation and may be introduced in the first or second session. However, it is also a constant theme throughout treatment. With externalizing the problem, children and families are invited to construe OCD as a discrete oppressive neurobehavioural illness, which is distinct from the child and the source of the unusual behaviour that led to the referral for treatment (White & Epston, 1990). Children may be invited to give OCD a nasty nickname like Germy. Adolescents usually prefer to refer to the condition by its initials, OCD. Once the problem has been externalized, OCD is referred to by its nickname (in the case of children) or as OCD (in the case of teenagers) and so becomes externalized as a personified enemy to be defeated rather than a bad habit or naughty behaviour for which the youngster is fully responsible. When OCD is externalized and re-framed in this way, children and parents are less likely to view the compulsions as bad behaviours for which the child is accountable and for which the child can be blamed. Rather, children and parents are invited to join forces and *boss Germy off the child's land*, or to manage OCD in an effective way. Thus, externalizing the problem and joining forces against it creates a context for forming an expert team. This team includes the child and family (who are experts on the specific ways in which OCD affects their unique family situation) and the mental health professionals who are experts on general principles for reducing the impact of OCD on children and families. The goal of this team is to reduce the influence of OCD on the child and family or phrased in children's terms *to boss OCD off the child's land*. The implication of this framing of the problem is that OCD is currently *bossing* *the child around*. The cues that make Germy or OCD try to boss the child around, or that elicit obsessions, are identified and rated on a scale from 1–10, where 1 = minimally distressing and 10 = maximally distressing. Self-monitoring homework is given to be reviewed in the next session. This involves keeping a diary where the following are noted: the time and situations in which obsessions and compulsion occur, the amount of time devoted to these, family involvement in rituals and the associated levels of distress on a 10-point scale.

Mapping. In the second or third session the self-monitoring data and material from the initial interview are used to help the child construct a hierarchy of cues that elicit OCD symptoms (an OCD ladder) using the form in Figure 13.1. The child is invited first to identify those situations where they can *beat Germy hands down*, or control OCD, and in which they may feel a mild level of anxiety (0–2 on a 10-point scale) but do not perform a ritual. These are 'win-all' situations. Next the child is asked to name those situations where *Germy*, or OCD, always wins and in which they experience a lot of fear (6–10) and always conduct a ritual. These are 'lose-all' situations. Finally, they are asked to described the transition zone, in which the child wins one-third of the time and Germy, or OCD, wins two-thirds of the time. To identify the transition zone, it is useful to ask children about 'those exceptional circumstances in which you expected *Germy*, or OCD, to win but you managed to defeat him' (White & Epston, 1990). The transition zone contains 'win-some, lose-some' situations. This zone is the area from which targets should be selected for exposure and response prevention exercises. For this reason, it may also be referred to as the 'work zone', since much of the work of therapy involves exposure and response prevention (E/RP). And like all forms of work such as homework or housework, E/RP work, or *bossing OCD back* work, is hard and takes sustained commitment and effort.

Exposure and response prevention. For about 10 sessions after the mapping session, the child undergoes an E/RP programme and learns anxiety management skills. The child is told that to increase the number of situations in which they and not Germy, or OCD wins, they must be exposed to those situations and prevent themselves from letting Germy, or OCD make them do their rituals. The child is exposed to increasingly more anxiety-provoking cues while concurrently is supported *to boss back Germy or OCD* and refuse to engage in rituals. The anxiety-eliciting cues may be both real and imaginal situations. If obsessions occur without identifiable cues (e.g. the idea that a tidal wave may swamp the city) then the obsession may be written down and repeatedly read or recorded onto a closed-loop audiotape. Children must remain in each exposure situation and prevent themselves from carrying out their rituals until their anxiety subsides. This is critical, since engaging in anxiety-reducing behavioural or cognitive compulsions before the anxiety has peaked and begun to subside reinforces the compulsive behaviour. If total response prevention provokes too much anxiety, compulsions may be delayed, shortened, altered or done more slowly to reduce the power of OCD over the youngster. Anxiety levels may be monitored throughout each E/RP session on a

10-point self-report scale using the form in Figure 13.3. On this form anxiety ratings are made at 1-minute intervals for 5 minutes and thereafter at 5-minute intervals until 30 minutes have elapsed. By reviewing the pattern of ratings on the form, children learn that E/RP leads to habituation and over time anxiety initially increases and then decreases. Habituation may be explained with reference to a swimming analogy. If we go swimming in cold water, initially it feels very uncomfortable, but the longer we stay in swimming the less uncomfortable it feels. Similarly with E/RP, initially exposure to situations where it is hard to resist OCD make us feel very uncomfortable, but the longer we stay in these situations without performing compulsions, the less uncomfortable we feel. Children are invited to take charge of the speed at which they work through the hierarchy and to select new cues once they have *bossed back Germy or OCD* in the presence of old cues that they have mastered. To manage the anxiety that this entails, the child is also taught relaxation skills, breathing skills and constructive self-talk in a manner similar to that outlined in Chapter 12. Each E/RP session begins with agenda or goal setting, a review of the previous week, giving information, practicing E/RP or anxiety management skills, and setting E/RP homework which typically recaps the work conducted in the session. The form in Figure 13.1 may be used as a basis for giving E/RP homework and reviewed at each E/RP session.



For your homework do this exposure and response prevention (E/RP) task.

EXPOSURE means going into a situation where OCD makes you think OBSESSIONAL thoughts and want to do COMPULSIVE things.

RESPONSE PREVENTION means using all you power to resist OCD by not doing your COMPULSIONS in these situations.

E/RP TASK

____
____
____

PLAN FOR BOSSING OCD BACK

____
____
____

Write the day in the first column. In the rest of the columns write down you rating from 1 to 10 which says how hard you are finding it to resist OCD.

If it's easy to resist OCD, give a rating of 1.
If it's very hard to resist OCD, give a rating of 10.

Very Easy 1_____2_____3_____4_____5_____6_____7_____8_____9_____10 Very Hard
Relaxed Very tense

Give one rating a minute for the first 5 minutes and then one rating every 5 minutes until 25 minutes have passed.

Notice how your rating increases and then decreases as time passes.

Day	Start	1 min	2 min	3 min	4 min	5 min	10 min	15 min	20 min	25 min	30 min

Figure 13.3 Exposure and response prevention homework sheet

Cognitive therapy. To be able to persevere with E/RP tasks children require coping skills. Relaxation and breathing exercises described in Chapter 12 are useful for reducing anxiety. However, cognitive strategies are required to counter pessimistic, catastrophic and overly responsible thinking. Children may be coached in actively *bossing OCD back* by speaking aloud as if OCD were an external discrete enemy. Here are some useful constructive statements:

- 'This is difficult but I'll be able to handle this if I breath slowly and use relaxation skills.'
- 'I've beaten you (OCD) before and I'll do it again.'
- 'Go jump in the lake OCD, I'm the boss.'
- 'Can't catch me this time, OCD.'

Children may be coached in detaching from obsessional thinking by following these four steps which may be written on an index card and used during E/RP exercise and at other times:

- Step 1: 'That's OCD talking again, not me.'
- Step 2: 'I don't have to pay attention to OCD, because he makes no sense'
- Step 3: 'The discomfort in this situation will go away soon without me doing a ritual, if I just stick with it.'
- Step 4: 'I'll think about something pleasant while I'm waiting to habituate.'

During therapy sessions, children may be coached in challenging irrational beliefs about over-estimations of danger or over-responsibility. For example, where children have obsessional ideas involving over-estimation of danger associated with failure to wash their hands very frequently, they may be asked what the probability of death is due to not washing their hands according to OCD, and then according to themselves based on their own observations of family members and friends who wash their hands a couple of times a day. They may be then be invited to compare these two estimates, which might be 100% and 10%, respectively. They can use the information about this discrepancy between their own estimate and that of OCD to boss OCD back if they become anxious during an E/RP task involving exposure to dirt.

Where children have obsessional ideas about over-responsibility, for example they are 100% responsible for a family member dying in a plane crash, they may be invited to use a pie chart to identify the degree of responsibility held by all of the many people involved including the pilot, air traffic controller, the mechanics and so forth, in the safety of the plane. They can then compare their percentage of the responsibility shown on the pie chart (which may be about 5%) to the 100% responsibility proposed by OCD, and use this discrepancy to boss OCD back.

Family involvement. Parents are briefed on the child's progress at every session. Family members are centrally involved in assessment and psychoeducational sessions and in sessions that focus on disengaging family members from children's compulsive rituals. Parents also participate in sessions on supporting the use of anxiety management skills and relapse prevention. At each briefing, parents are kept abreast of the child's progress, and the fact that the child is in charge of the pacing of the treatment is emphasized. Parents are helped to avoid coercing the child into accelerating the rate at which they tackle increasingly anxiety-provoking cues. In mid-treatment sessions parents and siblings work with the symptomatic child to identify situations which elicit OCD symptomatology and which also involve other family members. The family practice exposure and response prevention to these situations in therapy session and then repeat these family-involved E/RP exercises as homework. The challenge in these sessions is to help parents, symptomatic children and siblings negotiate E/RP tasks that the child can manage without being overwhelmed by anxiety, and to support parents to have the courage to refrain from involving themselves in their children's compulsive rituals.

In addition, the parents are coached in how to help the child to use anxiety management routines when exposed to anxiety-provoking cues. This is particularly important for those situations where parents typically reinforce their children's compulsive rituals. Parents are coached in how to use praise and reward systems, like those described in Table 4.5 in Chapter 4, to motivate their children to *boss Germy off their land* or *to boss OCD out of their lives*. They are also coached in how to avoid criticism and punishment as a response to OCD rituals. Parents are advised to focus their attention on other aspects of their child's behaviour and positively reinforce developmentally appropriate activities. Where members of the child's wider social network such as grandparents or school teachers are involved in the maintenance of the OCD symptomatology, they are contacted and given similar coaching.

As gains are made, children may be given certificates for bravery and defeating OCD. They may also be invited to notify members of the extended family of their achievements.

Relapse prevention and graduation. Relapse prevention sessions focus on pinpointing situations where relapses are likely to occur and planning how to manage these. Relapses are likely where usual routines are disrupted by going on holidays, changing class, moving house, starting a new job or going to college. Losses like failing an exam or falling out with friends may lead to relapses. So too may non-compliance with medication or development of infectious illness, especially in youngsters with the PANDAS sub-type of OCD. Plans for managing relapses should involve externalizing the problem, making a hierarchy of OCD-eliciting situations, rerunning an E/RP programme with family support and therapist support as required, and recommencing SSRI treatment if it has been discontinued. Treatment ends with a graduation ceremony, receiving a certificate, an invitation to notify others in the social network of their achievements, and follow-up sessions at 1, 3, 6 and 12 months.

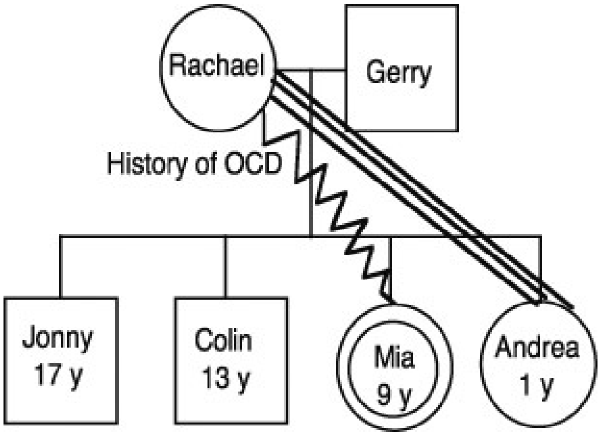
Tourette's disorder and other tic disorders

Tic disorders are characterized by the occurrence of tics which are sudden repetitive movements, gestures or utterances which mimic some fragment of normal behaviour (American Academy of Child and Adolescent Psychiatry, 2013a; Cath et al., 2011; Himle & Hayes, 2014; Leckman & Bloch, 2008; Martino & Leckman, 2013; Roessner et al., 2011; Tucker et al., 2013; Verdellen et al., 2011; Woods et al., 2007). Tics tend to last no more than a second or two and typically occur in bouts separated by tic-free intervals. They are experienced by young children as involuntary actions and by older children and adolescents as relief-bringing action preceded by irresistible premonitory urges. Tics are exacerbated by stressful situations and attenuated by absorbing activities such as reading. Tics may be suppressed for brief periods and are rarely present during sleep.

Simple motor tics include eye blinking, grimacing and shoulder shrugging. Touching, stamping, knee bending, smelling, echokinesis or echopraxia (imitation of another's movements), and copropraxia (making obscene gestures) are examples of complex motor tics. Snorting, barking, grunting and throat clearing are common simple vocal tics. Complex vocal tics include coprolalia (shouting obscene words), echolalia (repeating another's last phrase) and palilalia (repeating one's own last phrase).

Tics may occur alone or in clusters and be classified as transient or chronic, motor or vocal, and as simple or complex. In both ICD-10 and DSM-5 distinctions are made between tic disorders involving few or transient tics on the one hand, and Tourette's disorder on the other. Tourette's disorder involves multiple, chronic, complex motor and vocal tics and is the most pervasive and debilitating of the tic disorders. It was first described in modern medicine by Gilles de la Tourette (1885) and is also referred to as Gilles de la Tourette Syndrome. A case example is given in Box 13.2 and diagnostic criteria in Table 13.4.

Box 13.2 A case of Tourette's disorder



Referral. Mia was referred for treatment because of her frequent and uncontrolled swearing and behaviour problems at school. Specifically, Mia frequently stood up during class and engaged in physical exercises, which involved pacing, squatting and jumping.

History of the presenting problem. The problems had developed over a 12-month period following the birth of her sister, Andrea. Initially her parents and teachers thought that the swearing and conduct problems were attention-seeking behaviours stemming from jealousy towards her younger sister and grief at the loss of a privileged place within the family. Before the birth of her sister she was the youngest of three siblings and the only girl. Both of these factors allowed her to command the lion's share of her parents' attention. However, attempts by the parents and Mia's teachers to both offer her more attention while at the same time set limits on her conduct problems had little impact. Over the year prior to referral, her problems had steadily become more and more severe. This led to considerable conflict between Mia and her mother, particularly as her mother strongly disapproved of swearing. Her mother insisted that she pray for forgiveness and on more than one occasion washed out her mouth with soap. At the time of referral Mia had developed some depressive symptoms and also had periodic temper tantrums which her parents believed were completely out of character. Clinical interviews and evaluation confirmed that Mia's swearing and out-of-seat behaviour at school were coprolalia and complex motor tics rather than attention-seeking conduct problems. In addition, Mia displayed a number of simple motor and vocal tics including eyebrow twitching and throat clearing. Her depressive symptoms and tantrums appeared to be an emotional reaction to the conflict at home and at school that had arisen since the onset of Tourette's disorder.

Developmental and family history. Prior to the onset of symptoms a year before referral was made, Mia's development was essentially normal. There was a family history of OCD with the mother, Rachael, having been treated for this condition on two occasions. Her obsessions included fear that she would utter obscenities herself. Cleansing and praying rituals helped her to reduce anxiety associated with these obsessional fears.

Formulation. Mia presented with Tourette's disorder, characterized by simple and complex motor tics and coprolalia. The onset of the condition was precipitated by family stresses associated with the birth of a sibling. The positive family history for OCD suggested that Mia probably had a vulnerability to repetition disorders. The mother's response to Mia's Tourette's disorder symptoms may have exacerbated them and led Mia to develop secondary emotional and conduct problems. Specifically, the mother's disapproval of the symptoms, washing Mia's mouth with soap, and encouraging frequent praying, all of which were similar to the mother's OCD compulsions, were probably very distressing for Mia.

Treatment. A family-based approach was taken to treatment comprising psychoeducation, tic monitoring and habit reversal. In addition, the paediatrician prescribed haloperidol for Mia.

Table 13.4 Diagnosis of Tourette's disorder

DSM-5	*ICD-10*
A. Both multiple motor and one or more vocal tics have been present at some time during the illness, although not necessarily concurrently. B. The tics may wax and wane in frequency but have persisted for more than 1 year since first tic onset. C. Onset is before age 18 years. D. The disturbance is not attributable to the physiological effects of a substance (e.g., cocaine) or another medical condition (e.g., Huntington's disease, postviral encephalitis.	A form of tic disorder in which there are or have been multiple motor tics and one or more vocal tics, although these need not have occurred concurrently. Onset is almost always in childhood or adolescence. A history of motor tics before the development of motor tics is common. The symptoms frequently worsen during adolescence and it is common for the disorder to persist into adult life. The vocal tics are almost always multiple with explosive repetitive vocalizations, throat clearing, and grunting and there may be use of obscene words or phrases (coprolalia). Sometimes there is associated gestural echopraxia, which also may be of an obscene nature (copropraxia). Motor and vocal tics may be suppressed voluntarily for short periods, exacerbated by stress and disappear during sleep.

Note: DSM-5 diagnostic criteria are reprinted with permission from the *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition* (APA, 2013). Copyright © 2013 American Psychiatric Association. The material in the column headed ICD-10 is a summary of the clinical description and diagnostic guidelines for de la Tourette's syndrome. For the full official WHO clinical descriptions and diagnostic guidelines for this disorder see WHO, 1992, pp. 282–284.

Clinical features

Tourette's disorder typically begins in early childhood with occasional simple motor tics and gradually evolves into a condition where multiple motor and vocal tics are present (American Academy of Child and Adolescent Psychiatry, 2013a; Cath et al., 2011; Martino & Leckman, 2013). These may include both simple and complex tics such as coprolalia, copropraxia, echolalia and echopraxia. Contrary to popular opinion, coprolalia is relatively rare in Tourette's disorder and occurs in less than 6% of cases (Walkup, 2002). Speech fluency may be disrupted by vocal tics. By 10 years most children can recognize the premonitory urges which precede tics, and this both increases the discomfort and distress caused by the condition and permits the youngster to suppress tics for brief periods of time. By adolescence most children with Tourette's disorder report temporary tic suppression with accompanying inner tension and the feeling of active involvement in performing a tic. Although they cannot permanently suppress tics they experience them as conscious, intentional movements executed to relieve premonitory urges.

Typically children with Tourette's disorder develop secondary adjustment difficulties which present as internalizing or externalizing behaviour problems, particularly if there are co-morbid conditions such as OCD and ADHD. Peer problems are quite common, and this may be because youngsters with Tourette's disorder are shunned by their peers because of their bizarre behaviour. Over half of children with tic disorders have sleep problems. During late adolescence and early adulthood the severity of the tic disorders may lessen.

Epidemiology and course

Reviews of epidemiological studies allow the following conclusions to be drawn (American Academy of Child and Adolescent Psychiatry, 2013a; Leckman & Bloch, 2008; Robertson et al., 2009). Among children, tics are common and Tourette's disorder is rare. Community surveys have shown that up to 13% of children have tics. The overall international prevalence of Tourette's disorder is about 1%. Children are 5–12 times more likely to have tics than adults. Boys are more likely to have tics than girls, although the ratio is less than 2:1. For young people with Tourette's disorder, the most common co-occurring disorders are ADHD (30–50%) and OCD (40%). Depressive and anxiety symptoms and sleep problems are common. Children with ASD are at increased risk of developing tics.

Chronic tic disorders, including Tourette's disorder, follow a distinctive course (Bloch & Leckman, 2009). Tics typically have an onset between the ages of 4 and 6 years and reach greatest severity between 10 and 12 years. Tic severity declines in adolescence. By early adulthood, one-third of cases with Tourette's disorder will be tic-free and roughly three-quarters will have greatly diminished tic symptoms. Co-morbid conditions, such as OCD and other anxiety and depressive disorders, are more common during adolescence and early adulthood in individuals with Tourette's disorder than in the general population. Poorer outcome occurs in children with more severe tics, poorer fine-motor control, smaller caudate volumes, and untreated co-morbid conditions such as ADHD and OCD (Hassan & Cavanna, 2012).

Aetiological theories

There is now a consensus that biological factors are the main contributors to the aetiology of Tourette's disorder, and psychological factors such as life stress and coping resources play a role in determining its course (American Academy of Child and Adolescent Psychiatry, 2013a; Felling & Singer, 2011; Leary et al., 2007; Martino & Leckman, 2013; O'Rourke et al., 2009). Twin and proband studies show that genetic factors play a major role in the genesis of Tourette's disorder. Abnormalities in the functioning of the basal ganglia and related cortical and thalamic structures (the cortico-striatal-thalamic-cortico [CSTC] circuits) have been identified as the possible neurobiological substrate for this disorder. There is some evidence that dysregulation of dopaminergic, noradrenergic and serotonergic neurotransmission systems and abnormalities in the functioning of endogenous opioid peptide systems may occur in Tourette's disorder. The higher incidence of the condition among boys has led to the hypothesis that androgenic steroids at key developmental periods may influence the emergence of Tourette's disorder. Adverse pre-natal and peri-natal factors including maternal stress or illness during pregnancy, pregnancy complications and low birth weight have all been found to be associated with the condition.

The onset of Tourette's disorder or exacerbations of symptomatology typically follow stressful life events. The likelihood that the disorder will find expression in a person with a genetic vulnerability is probably mediated by the supportiveness of the family environment, the wider school and peer network, and the availability of coping strategies associated with such protective factors as high ability, self-esteem and self-efficacy. In children with ADHD, treatment with stimulant medication such as methylphenidate may precipitate the onset of a tic disorder.

Post-infectious autoimmune mechanisms contribute to the development of Tourette's disorder in up to a fifth of cases (Leckman & Bloch, 2008). As was mentioned when discussing OCD earlier, autoimmune mechanisms deserve serious consideration as important aetiological factors in children who have had a streptococcal infection, who report an abrupt onset of Tourette's disorder following the infection, and who present with co-morbid OCD or ADHD. Referral to paediatrics for immunomodulatory treatments such as plasma exchange deserve consideration in such cases.

Assessment

Young people suspected of having Tourette's disorder should be assessed for tic and co-morbid disorders following the general assessment protocol in Chapter 4 supplemented with the additional tic disorder–specific procedures outlined shortly (American Academy of Child and Adolescent Psychiatry, 2013a; Cath et al., 2011; Martino & Leckman, 2013; Woods et al., 2007). Referral for a thorough paediatric medical assessment should be made in cases where children present with repetitive tic-like behavioural problems to rule out possible organic conditions such as Huntington's chorea, Wilson's disease and Sydenham's chorea. It is also important to distinguish tics from compulsions associated with OCD and stereotyped movement disorders associated with intellectual disability and ASD. In intellectual disability and ASD, stereotyped movements include self-injurious behaviours such as head-banging, biting, skin-picking, eye-poking, hitting oneself, and non-injurious, non-functional rhythmic behaviour such as rocking, finger-flicking or hand-flapping. Stereotyped behaviours usually last longer than tics which are relatively brief. In OCD compulsions are voluntary and preceded by anxiety associated with obsessions. For example, compulsions to tap three times may occur to reduce anxiety associated with an obsessional belief that this will neutralized the risk of something dangerous occurring. In contrast tics are involuntary and may be predicted by premonitory urges which are uncomfortable, but this discomfort is distinct from anxiety and is not associated with clearly articulated beliefs that the tic will somehow reduce anxiety. Tics, but not compulsions may occur during sleep.

Once such conditions have been ruled out, in addition to the assessment protocol presented in Chapter 4, standardized rating scales and self-report instruments presented in Table 13.5 may be useful in evaluating children who present with tics. Of these, the Yale Global Tic Severity Scale is the most widely used instrument in the field.

A functional analysis of the antecedents and consequences of tics over the course of a number of days should be conducted in the child's natural environment. For infrequently occurring tics, every single tic that occurs during each of a number of days should be recorded along with the antecedents and consequences using the form in Figure 13.4. For frequently occurring tics, the number of tics occurring in the first 10 minutes of each hour may be counted and the antecedents and consequences of these periods noted using an adapted version of the form in Figure 13.4. This monitoring may be conducted by parents, teachers or the children themselves. Where parents and children are unable to do this a professional observer may be trained to conduct this part of the assessment. This aspect of the assessment throws light on the naturally occurring antecedents and consequences of the child's tics that increase or decrease their frequency. It also highlights times during the day when high and low rates of tics are emitted.

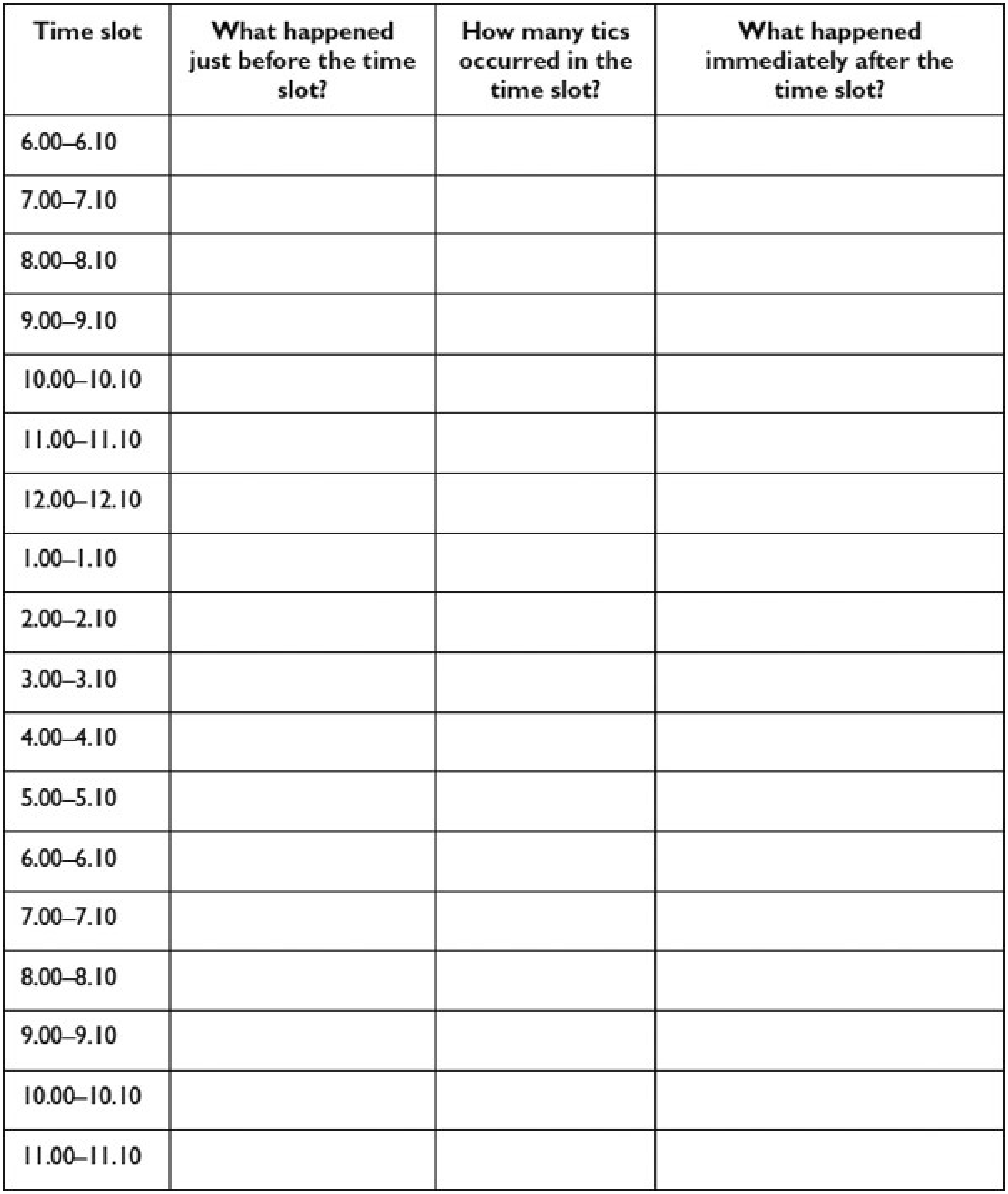
Table 13.5 Psychometric instruments that may be used as an adjunct to clinical interviews in the assessment of Tourette's disorder

Instrument	*Author and date of publication*	*Comments*
Yale Global Tic Severity Scale (YGTSS)	Leckman, J., Riddle, M., Hardin, M. et al. (1989). The Yale Global Tic Severity Scale: Initial testing of a clinician-rated scale of tic severity. *Journal of the American Academy of Child and Adolescent Psychiatry, 28*, 566–573.	This is the most widely used clinician-rated scale. Forty motor and phonic tics are rated on 5-point scales for number, frequency, intensity, complexity and interference. Overall impairment is rated on a 50-point scale. A global severity score is obtained by combining all ratings.
Tourette Syndrome Diagnostic Confidence Index (DCI)	Robertson, M., Banerjee, S., Kurlan, R., Cohen, D., Leckman, J., McMahon, W., …van de Wetering, B. J. (1999). The Tourette Syndrome Diagnostic Confidence Index:	The DCI produces a score from 0 to 100 that is a measure of the likelihood of having or ever having had Tourette's disorder. It is based on 26 ratings of aspects of the

	Development and clinical associations. *Neurology, 53*, 2108–2112.	clinical presentation and life history.
Tourette Syndrome Severity Scale (TSSS)	Shapiro, A., & Shapiro, E. (1984). Controlled study of pimozide vs. placebo in Tourette syndrome. *Journal of the American Academy of Child Psychiatry, 23*, 161–173. Shapiro, A. Shapiro, E., Young, J. & Feinberg, T. (1988). *Gilles de la Tourette's syndrome.* New York: Raven Press.	On this parent-completed scale, social disabilities associated with Tourette's disorder are rated on five ordinal scales.
Child Tourette Syndrome Impairment Scale (CTSIC)	Storch, E., Lack, C. et al. (2007). A measure of functional impairment in youth with Tourette's syndrome. *Journal of Paediatric Psychology, 32*, 950–959.	Impairment at home, school and in social activities are rated on by children and parents on this 37-item scale.
Tourette Syndrome Global Scale (TSGS)	Harcherik, D., Leckman, J., Detlor, J., & Cohen, D. (1984). A new instrument for clinical studies of Tourette's syndrome. *Journal of the American Academy of Child Psychiatry, 23*, 153–160.	The frequency and disruption of simple and complex motor tics are assessed on 5-point scales along with ratings of behaviour, motor restlessness, school problems, and work problems on 25-point scales. Results are combined to give an overall score.
Tourette Syndrome Questionnaire (TSQ)	Jagger, J., Prusoff, B., Cohen, D., Kidd, K., Carbonari, C., & John, K. (1982). The epidemiology of Tourette's syndrome. *Schizophrenia Bulletin, 8*, 267–278.	A 35-page self-report or parent-report questionnaire which provides information on developmental history, the course of tic behaviours, and the impact of Tourette's disorder on the child's life.
Tourette's Syndrome Symptom	Cohen, D., Leckman, J., & Shaywitz, B. (1985). The Tourette syndrome and other tics. In D. Shaffer, A. Ehrhard, & L. Greenhill	A self-report or parent-report questionnaire focusing on

List (TSSL)	(Eds.), *The clinical guide to child psychiatry* (pp. 77–88). New York: Free Press.	symptomatology.
Motor Tic, Obsessions and Compulsions, Vocal Tic Evaluation Survey (MOVES)	Gaffney, G., Sieg, K. & Hellings, J. (1994). The MOVES: A self-rating scale for Tourette's syndrome. *Journal of Child and Adolescent Psychopharmacology, 44*, 269–280.	A self-report or parent report questionnaire focusing on symptomatology.
National Hospital Interview Schedule (NHIS)	Robertson, M., & Eapen, V. (1996). The National Hospital Interview Schedule for the assessment of Gilles de la Tourette syndrome. *International Journal of Methods in Psychiatric Research, 6*, 203–226.	A structured interview schedule for diagnosing Tourette's disorder.
Hopkins Motor and Vocal Tic Scale (HMVTS)	Walkup, J. Rosenberg, L., Brown, J. & Singer, H. (1992). The validity of instruments measuring tic severity in Tourette's syndrome. *Journal of the American Academy of Child and Adolescent Psychiatry, 30*, 472–477.	An instrument that combines self-report and clinician rating data for measuring tic severity.
Gilles de la Tourette Syndrome – Quality of Life Scale (GTS-QOL)	Cavanna, A. E., Schrag, A., Morley, D., Orth, M., Robertson, M. M., Joyce, E., …Selai, C. (2008). The Gilles de la Tourette Syndrome – Quality of Life Scale (GTS-QOL): Development and validation. *Neurology, 71*(18), 1410–1416.	This 27-item self-report scale assesses health-related QOL. It yields a total score and scores on psychological, physical, obsessional, and cognitive subscales.
	Chao, K., Wang, H., Chang, H., Wang, Y., & See, L. (2010).	This 26-item child- or parent-report

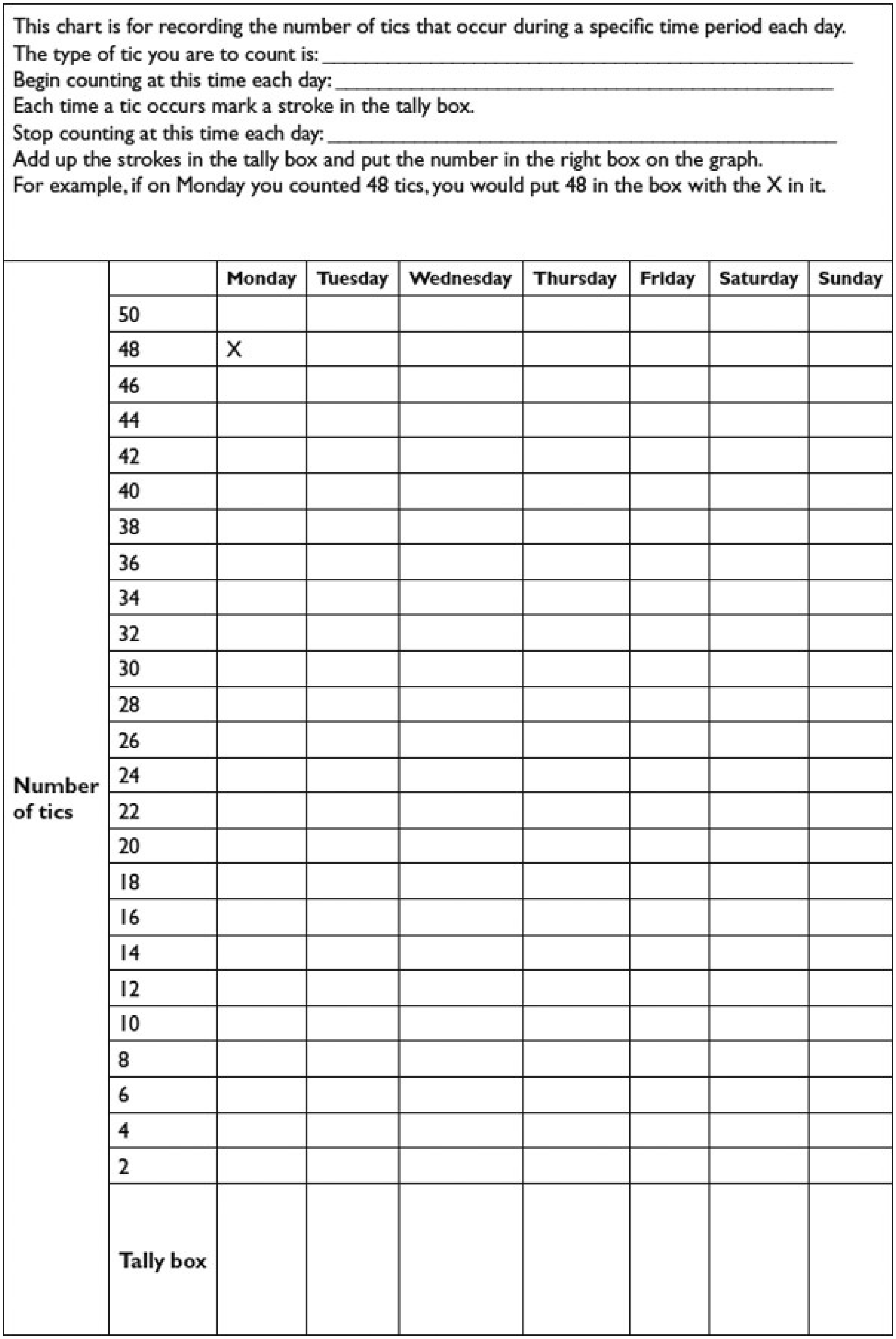
Stress Index for Children or Adolescents with Tourette Syndrome (SICATS)	Establishment of the reliability and validity of the Stress Index for Children or Adolescents with Tourette Syndrome (SICATS). *Journal of Clinical Nursing*, *19*, 332–340.	scale assesses stress in young people with Tourette's disorder. It yields a total score and scores for stress related to being unfairly treated, psychological stress, symptom control stress and stress due to future concern.



Time slot	What happened just before the time slot?	How many tics occurred in the time slot?	What happened immediately after the time slot?
6.00–6.10			
7.00–7.10			
8.00–8.10			
9.00–9.10			
10.00–10.10			
11.00–11.10			
12.00–12.10			
1.00–1.10			
2.00–2.10			
3.00–3.10			
4.00–4.10			
5.00–5.10			
6.00–6.10			
7.00–7.10			
8.00–8.10			
9.00–9.10			
10.00–10.10			
11.00–11.10			

Figure 13.4 Tic recording form for assessing antecedents and consequences throughout the day

Two daily recording intervals of about 10 minutes which are representative of periods when particularly high and particularly low numbers of tics typically occur should be selected on the basis of the data supplied by this part of the assessment. Parents or children may be trained to count the number of tics or tic clusters occurring during these periods. These frequency counts may be graphed by the child to monitor progress. A tic recording form for this purpose is presented in Figure 13.5. This approach to assessment, which is far less time consuming than the all-day approach, may be used to establish a baseline during an extended assessment period and to monitor progress during treatment.



This chart is for recording the number of tics that occur during a specific time period each day.
The type of tic you are to count is: ______________________________
Begin counting at this time each day: ______________________________
Each time a tic occurs mark a stroke in the tally box.
Stop counting at this time each day: ______________________________
Add up the strokes in the tally box and put the number in the right box on the graph.
For example, if on Monday you counted 48 tics, you would put 48 in the box with the X in it.

		Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
Number of tics	50							
	48	X						
	46							
	44							
	42							
	40							
	38							
	36							
	34							
	32							
	30							
	28							
	26							
	24							
	22							
	20							
	18							
	16							
	14							
	12							
	10							
	8							
	6							
	4							
	2							
	Tally box							

Figure 13.5 Tic recording form for assessing the number of tics in a single time slot over a week

Treatment

Information from the paediatric evaluation, psychological assessment and assessments conducted by professionals from other disciplines may be pooled to arrive at a diagnosis of the tic disorder and any co-morbid or secondary conditions. Multi-systemic management of tic disorders may include some or all of the following components (American Academy of Child and Adolescent Psychiatry, 2013a; Himle & Hayes, 2014; Leckman & Bloch, 2008; Martino & Leckman, 2013; Roessner et al., 2011; Tucker et al., 2013; Verdellen et al., 2011; Woods et al., 2007):

- psychoeducation
- environmental manipulation
- management of secondary problems
- habit reversal
- exposure and response prevention
- medication.

Psychoeducation. If offering psychoeducation, a primary goal is first to convey the ideas that tics are involuntary and expressions of a clear neurodevelopmental disorder which has a major genetic component in most cases and which is probably due to abnormalities of neural circuits involving the basal ganglia. It should be stressed that tics are not expressions of unconscious conflicts or family dysfunction, although they can cause the child and family considerable distress. It should also be emphasized that tics are never intentional although they can be suppressed for brief periods with great effort. Stress, particularly criticism or punishment, makes them worse. This type of information may help parents and teachers minimize the exposure of the child to punitive criticism. This may be a very significant intervention in cases where the child has developed complex motor tics or coprolalia which are disruptive in school and distressing for family members at home and have led to the child being regularly punished, criticized or ostracized.

A second goal of psychoeducation is to offer a diagnosis with some indication of the degree of confidence with which the diagnosis may be made. This is important since it has major implications for prognosis. As far as we know, only Tourette's disorder has a chronic lifelong course. Where children present with tics for less than a year, no matter how pervasive or complex they are, a diagnosis of Tourette's disorder should not be given, although it should be mentioned that it may be a possibility. However, once there is certainty that Tourette's disorder is present, the diagnosis should be made to permit the child and parents to develop reasonable plans about adjusting to it. The final diagnosis should be offered by a full multi-disciplinary team that can offer an authoritative psychosocial and paediatric summary of the outcome of a thorough evaluation.

Environmental manipulation. Environmental changes which may make the child's tic disorder more manageable may be suggested by the information recorded on the form presented in Figure 13.4. Antecedents or consequences associated with frequent tics may be removed or modified. Arrangements may be made for children to have relatively isolated quiet time following daily transitions from home to school or school to home, or between classes at school during which they can relax and cease attempting to control their tics.

Arrangements may be made with school staff for the child to sit exams separately from the class, particularly in cases were there are vocal tics. Ideally, the degree to which the tics interfere with exam performance should be taken into account when grading the child's oral, written and practical work. Time pressure should be minimized in exam situations and youngsters should be permitted to take occasional rests during exams to reduce the frequency of tics (Harrington, 1998; Packer, 2005).

Management of secondary problems. Evaluation and treatment should be offered for secondary adjustment problems and co-morbid difficulties. The sensitive management of children's and parents' grief reactions to the diagnosis and prognosis in cases of Tourette's disorder may be based on an understanding of grief processes as described in Chapter 24. Co-morbid depression, anxiety, conduct problems, ADHD, OCD, sleep problems and school-based learning problems may be managed following the guidelines set out for these problems elsewhere in this text.

Habit reversal. Habit reversal has been shown to significantly reduce tic frequency in Tourette's disorder and transient and chronic tic disorders, and also to be effective in reducing the frequency of hair-pulling in trichotillomania (Azrin & Nunn, 1973; Tucker et al., 2013; Verdellen et al., 2011). Habit reversal includes awareness training, competing response training, relaxation training and contingency management.

The aim of awareness training is to increase the child's awareness of the nature of the tics, their frequency, and the antecedents and consequences which effect the frequency of the tics. First the child is taught how to describe the tic in detail. A mirror or videotape may be used over a number of sessions to give immediate accurate feedback on the nature and occurrence of the tics. The psychologist may also alert the child to each occurrence of the tic during training periods. This procedure helps the child to describe the tics, increases motivation to control them, and also helps the child to develop awareness of early warning signs that the tic is about to occur. This awareness of early warning signs is used as a cue for carrying out a competing response, which will be described later. Another aspect of awareness training is coaching the child in using the tic recording forms presented in Figures 13.4 and 13.5. The form presented in Figure 13.4 may be used by the child for three or four days to learn about the antecedents and consequences in the child's natural environment which effect tic frequency. When using this form, the child notes the number of tics that occur in the first 10 minutes of each hour throughout the day and the associated antecedents and consequences. The form presented in Figure 13.5 may be used over an extended period of weeks or months to help the child retain awareness of fluctuations in their tic frequency. With this form, the child is trained to count the number of tics occurring during a set 10-minute period each day.

The child is also trained to carry out a competing response for 2 minutes contingent upon the occurrence of the tic or contingent upon recognizing an early warning sign that the tic is about to occur. Competing responses should be incompatible with the tic, be capable of being maintained for 2 minutes, be inconspicuous, strengthen the muscles antagonistic to the tic or habit, and produce a heightened awareness through tensing the muscle. For tics, it is recommended that the competing response should involve the isometric tensing of the muscles opposite to those involved in the tic movement. For eye blinking, the competing response is opening the eyes wide. For shoulder jerking the competing response is the isometric tensing of the shoulder depressors. For trichotillomania (hair-pulling) the competing response is fist clenching.

Relaxation training is included in the habit reversal programme so that children can lower their arousal level in stressful situations and so reduce the frequency with which tics occur. A relaxation training routine is described in Chapter 12.

While self-monitoring, the use of competing responses, and relaxation training directly affect the frequency with which tics occur, contingency management aims to increase the child’s motivation to use these three sets of skills. Contingency management begins with a habit inconvenience review. Here the child is helped to list all of the embarrassing and inconvenient consequence of the tics or habits on one side of an index card and all of the advantages of reducing the frequency of the tics on the other. This card should be carried at all times and reviewed frequently by the child to remind them of the benefits of complying with the treatment programme. Parents may be trained to praise the child and to use a reward system, like that described in Table 4.5 in Chapter 4, to reinforce the child for using the competing response and relaxation skills in appropriate ways. In cases where there is a very high rate of tics, the reward system may be confined to a specific period each day and the duration of this period may be gradually lengthened as the child gains more control over the tics or habits.

Exposure and response prevention. When E/RP is used to reduce tics, children are exposed to interoceptive cues (premonitory urges) for prolonged periods of time and prevent themselves from carrying out tics. Through this process they habituate to the unpleasant feeling of not following through on premonitory urges, and so are less likely in future to tic in response to urges. As pre-adolescent children are rarely aware of premonitory urges, E/RP as a treatment of Tourette’s disorder is probably limited to adolescents and adults. Results from a single controlled trial and some case studies show that it can be as effective as habit reversal (Tucker et al., 2013; Verdellen et al., 2011).

Medication. Referral to a physician may be made to assess the appropriateness of including medication in the overall treatment programme (American Academy of Child and Adolescent

Psychiatry, 2013a; Roessner et al., 2011). Up to 70% of children with Tourette's disorder achieve significant symptom reduction when treated with dopamine blocking agents of which haloperidol and pimozide were the first to be widely used. However these have troublesome short-term side effects such as akathisia and akinesia and irreversible long-term side effects, particularly tardive dyskinesia. Other atypical neuroleptic medications which, like haloperidol, affect the dopamine system but have fewer short-term side-effects have been shown to reduce tics, and of these risperidone has the strongest evidence base. Because of their uncomfortable short term side-effects and irreversible long term side-effects, these medications which affect the dopamine system are used in low doses, and only in moderate to severe cases of Tourette's disorder. Alpha-adrenergic agonists, notably clonidine and guanfacine, in some cases are effective in suppressing tics, and have minimal side effects. Also, clonidine has a positive impact on ADHD symptoms and so is a first choice of medications in young children with co-morbid ADHD and tic disorders.

Summary

In OCD and Tourette's disorder the central psychological concern is the fact that adjustment is compromised by the execution of repetitive actions. These and other similar conditions form part of a spectrum of psychological problems with a common genetic diathesis, and basal ganglia dysfunction has been implicated in their aetiology. Psychoanalytic theories of OCD which implicate parent–child conflict over toilet training in the aetiology of the condition have not been empirically supported. Family systems frameworks for understanding OCD have not been fully developed, although there is evidence that families may play a role in the maintenance of OCD. Cognitive-behavioural explanations of OCD argue that specific environmental stimuli are appraised in a way that triggers anxiety-provoking obsessional thoughts. Compulsive rituals are used to neutralize these intrusive obsessional thoughts. Some people have a particular vulnerability to developing intrusive unacceptable obsessive thoughts. The treatment of choice for OCD in children is built around E/RP procedures and offered in a way that maximizes parental involvement in helping the child reduce symptomatology. Tourette's disorder, a lifelong debilitating condition involving multiple motor and vocal tics, may be distinguished from more circumscribed and transient tic disorders. Tourette's disorder cannot be cured. Management programmes include psychoeducation, environmental manipulation at home and at school to minimize stressful events that exacerbate the tics, evaluation and treatment of secondary or co-morbid conditions, habit reversal or E/RP to reduce the frequency of tics, and medication, the most effective of which are dopamine blocking agents.

Exercise 13.1

Work in pairs with one person taking the role of the interviewer and the other taking the role of Trevor described in Box 13.1. The interviewer may explain OCD to Trevor and invite him to give it a nickname. Then the interviewer may help Trevor construct a hierarchy of situations which elicit obsessional anxiety.

Further reading

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Websites

OCD Action UK: http://www.ocdaction.org.uk/

OCD Foundation: http://www.ocfoundation.org/

OCD Resources Centre: http://www.ocdresource.com/

OCD websites: http://www.geonius.com/ocd/

Tourette Action UK: http://www.tourettes-action.org.uk/

Tourette Syndrome Association USA: http://www.tsa-usa.org/Tourette Syndrome page: http://www.mentalhealth.com/dis/p20-ch04.htmlTourette Syndrome webpage for educators: http://www.tourettesyndrome.net/

Chapter 14

Somatic problems

Children and adolescents may be referred for psychological consultation with the central focus being a somatic complaint (Roberts & Steele, 2009). Somatization or conversion symptoms, chronic fatigue syndrome, pain, adjustment to chronic illness, and preparation for anxiety provoking medical and dental procedures are among the more common reasons for referral. In this chapter common childhood problems in each of these areas will be addressed. Other conditions where somatic factors are involved, such as enuresis and encopresis, sensory impairment, head injury, eating disorders, drug misuse and injuries arising from physical abuse are discussed in other chapters. The anticipatory grieving process associated with life-threatening illness such as cancer is discussed in Chapter 24. However, before addressing specific somatic presentations, a consideration of the development of children's concepts of illness and pain will be given, and some frameworks within which to conceptualize somatic problems will be presented. From a clinical perspective, the assessment and management of somatization problems and the management of chronic childhood illness must take account of children's conceptions of illness and pain which evolve as children mature. The wider psychosocial context within which illness occurs must also be taken into account.

Development of the concepts of illness

The development of the child's concept illness is determined by both cognitive maturation and experience of or exposure to illness (Bibace, 1981; Bibace & Walsh, 1979; Myant & Williams, 2005). Children's understanding of the causes of illness progresses through a series of stages which is, broadly speaking, consistent with Piaget's theory of cognitive development. Prior to 3 years, illness is defined by children in terms of a single symptom and the cause of illness is understood to be remote. For example, a child may say that tummy aches are caused by the man on the television. Between 3 and 5 years children still conceive of illness in single-symptom terms, but use the concept of contagion to explain the aetiology of the diseases. So a 5 year old may explain that you catch measles if you go too near another child who has them. Magical thinking may also occur during this stage, and children may wonder if something that they did caused their illness or if the illness is a punishment for wrongdoing. Such magical ideas may persist as a feature of children's thinking into teenage years, and since it can cause unnecessary distress it deserves clinical exploration. With the transition to concrete operational thinking that occurs between 5 and 7 years, most children develop a more sophisticated idea about the symptomatology and aetiology of illness. Most illnesses are construed at this stage as entailing multiple symptoms and being caused by internal processes such as ingesting germs. So children at this stage begin to develop health-related behaviours such as washing their hands before eating to remove germs or exercising to keep their body healthy. As children approach adolescence and the onset of formal operational thought, they can give detailed physiological explanations of illnesses. So an 11 year old may say that lung cancer is caused by cells growing too quickly and this in turn is due to being covered in tar from cigarette smoke. Teenagers can offer sophisticated psychophysiological explanations for the aetiology of illnesses. For example, a diabetic teenager may explain that their blood sugar level is affected by their diet, insulin intake, level of physical activity and stress level.

Development of the concept of pain

The development of the child's concept of pain is affected by both cognitive maturation and the child's experience of pain (McGrath, 1995). Prior to 18 months children can indicate that they are in pain by crying or simple verbalizations but are unable to conceptualize or verbalize different levels of pain intensity. Rating scales rather than self-report scales are probably the best way to assess changes in pain levels in children at this stage of development (Cohen et al., 2008). Children of 18 months can verbalize the fact that pain hurts. They can localize pain in their own bodies and they can identify pain in others. They can understand that their experience of pain may be alleviated by asking for medicine or receiving hugs and kisses from carers. They may also try to alleviate pain in others by offering to hug them. At about 2 years more elaborate descriptions of pain occur and children can more clearly attribute pain to external causes. By 3 or 4 years of age children can differentiate between differing intensities and qualities of pain and verbalize these. So in assessing children as young as 3, it is possible to ask them about how much pain they feel and how stingy or hot or throbby it feels. Poker chips or counters may be used as concrete symbols of pain, and children as young as 3 years may be asked to indicate the intensity of their pain using such concrete symbols (Hester et al., 1990). By 3 years children are also aware that specific strategies such as distraction may be used to cope with pain. So children at this age may be aware that playing when they have hurt themselves may make them feel better by distracting them from the pain. Between 5 and 7 years children become more proficient at distinguishing between differing levels of pain intensity and may be able to use face scales to indicate fluctuations in pain experiences (Hicks et al., 2001). On face scales, children indicate the intensity of their pain by selecting a face from an array of faces expressing a variety of levels of pain, which most closely reflects their own experience of pain. Between the ages of 7 and 10 years children can explain why pain hurts, and once they reach adolescence they can explain the adaptive value of pain for protecting people from harm.

Medically unexplained symptoms and somatization

Children referred for psychological consultation where somatic complaints are a central feature include those who present with medically unexplained symptoms (MUS) (sometimes referred to as functional somatic symptoms or conversion symptoms) and those who are having difficulties associated with adjustment to illness or injury (Roberts & Steele, 2009). When children present with MUSs, these symptoms may be due to the psychological process of somatization (Eminson, 2007; Husain et al., 2007; Walker et al., 2009) and/or psychoneuroimmune processes (Dantze, 2005). Somatization refers to the expression of psychological distress through somatic symptoms. When children somaticize psychological distress, their somatic symptoms are not fully explicable in terms of organic factors such as infection or tissue damage, and it is assumed that psychological factors play a significant role in the aetiology or maintenance of their complaints. In contrast the psychoneuroimmune process hypothesis is that the brain cytokine system can become sensitized to repeated activation in response to physical illness. When sensitized the system is less likely to 'turn off' when episodes of physical illness are over, and more likely to be triggered by psychosocial stimuli. This results in somatic symptoms, such as pain, fatigue and malaise.

With MUSs single symptom or multi-symptom somatization may occur, although multi-symptom presentations are the most common. Where multi-symptom presentations occur, they typically cluster around a central complaint, the most common of which are head, stomach and limb pains (Campo, 2012). With recurrent abdominal pain (RAP), stomach pains are the central complaint but these may be accompanied by nausea, a lump in the throat, a bad taste in the mouth and gastrointestinal difficulties of various sorts. Where headaches are the chief complaint, they may occur in conjunction with chest pain, breathlessness, a pounding heart and dizziness. Where limb pains are the main concern, they may be accompanied by an abnormal gait, paralysis and occasionally areas of limb anaesthesia which do not conform to the anatomical distribution of sensory nerves. However, the clinical picture for each of the central complaints may include multiple symptoms in unrelated bodily systems.

Multi-variate studies of the Child Behaviour Checklist and other ASEBA instruments have identified a somatic complaints syndrome as a narrow-band factor falling within the broader dimension of internalizing behaviour problems (Achenbach & Rescorla, 2000, 2001). Items in the syndrome for toddlers and older children are presented in Table 14.1. The identification of a somatic complaint factor in many factor-analytic studies supports the idea of a single somatic complaint syndrome which may find expression in a variety of ways, with one symptom such as headaches predominating in one case and another symptom such as abdominal pain being prominent in another case.

Table 14.1 ASEBA Somatic Complaints syndrome scale for 1.5–5 and 6–18 year olds

ASEBA 1.5–5 year olds	*ASEBA 6–18 year olds*
Pain	**Pain**
Stomach aches (P&T)	Stomach aches (P&T &C)
Headaches (P&T)	Headaches (P&T &C)
Aches (P&T)	Aches (P&T&C)
Nausea and Vomiting	**Nausea & Vomiting**
Nausea (P&T)	Nausea (P&T&C)
Vomits (P&T)	Vomits (P&T&C)
Doesn't eat well (P)	
Bowel problems	**Bowel problems**
Constipated (P)	Constipated (P)
Diarrhoea (P)	
Painful bowel movements (P)	
Other anxiety symptoms	**Other anxiety symptoms**
Can't stand things out of place (P&T)	Nightmares (P&C)
Too concerned with neatness or cleanliness (P&T)	Overtired (P&T&C)
	Feels dizzy (P&T&C)
	Eye problems (P&T&C)
	Skin problems (P&T&C)

Note: Adapted from Achenbach & Rescorla (2000, 2001). Items marked (P) are on the parent report Child Behaviour Checklist. Items marked (T) are on the Teacher Report or Caregiver and Teacher Report Form. Items marked (C) are on the Youth Self-Report Form.

In ICD-10 (WHO, 1992) and DSM-5 (APA, 2013), somatization problems are referred to as somatization disorder and somatic symptom disorder, respectively. From Table 3.1 in Chapter 3 it may be seen that somatization disorder is listed in ICD-10. This condition is characterized by a history of multiple, recurrent, and frequently changing MUSs; refusal to accept medical reassurance that the symptoms have no physical cause; and functional impairment arising from the condition. From Table 3.2 in Chapter 3 it may be seen that somatic symptom disorder is listed in DSM-5. This condition is characterized by a history of one or more somatic symptoms which may or may not be medically unexplained; excessive symptom-related, problematic thoughts, feelings or behaviours; and related functional impairment. The main difference between these ICD and DSM disorders is that in ICD-10 MUSs are the key feature, whereas in DSM-5 the person's problematic symptom-related thoughts, feelings or behaviours are central, and the disorder may occur in people where symptoms have a physical basis. In many children for whom recurrent abdominal pain is the central complaint, a diagnosis may by made of ICD-10 somatization disorder or DSM-5 somatic symptom disorder. Where motor or sensory symptoms occur such as paralysis, convulsions or anaesthesia for which no neurological basis can be found, within DSM-5 and ICD-10, a diagnosis of conversion disorder may be given.

Adjustment to physical illness

In contrast to children with MUSs and somatization problems, some children referred for psychological consultation where somatic complaints are a central concern have difficulty adjusting to physical illnesses or injuries (Roberts & Steele, 2009). Where children have chronic conditions such as asthma, diabetes or epilepsy, they may find the symptoms associated with these disorders distressing. They may experience anxiety, depression or irritable mood. They may also find the demands of adhering to medical regimes essential for optimal management of their illnesses challenging. Non-adherence may lead to exacerbation of their symptoms, further distress and adjustment difficulties within the family, school and peer group.

In clinical practice it may be useful to conceptualize paediatric difficulties referred for psychological consultation, where somatic symptoms are the central concern, as falling along two dimensions as set out in Figure 14.1. Thus in any case, the child's symptomatology may be viewed as falling along a continuum from the physiological to the psychological. The aetiology of the condition may also be viewed as falling along such a continuum. This dimensional approach allows the clinician to avoid falling into the trap of over-simplification and of classifying somatic complaints as exclusively organic or psychological.

Epidemiology

In community surveys the prevalence of MUSs or somatization disorders is approximately 10% in children and adolescents, rates tend to be higher in girls, and there is a strong association between MUSs and co-morbid anxiety and depression across the lifespan (Campo, 2012).

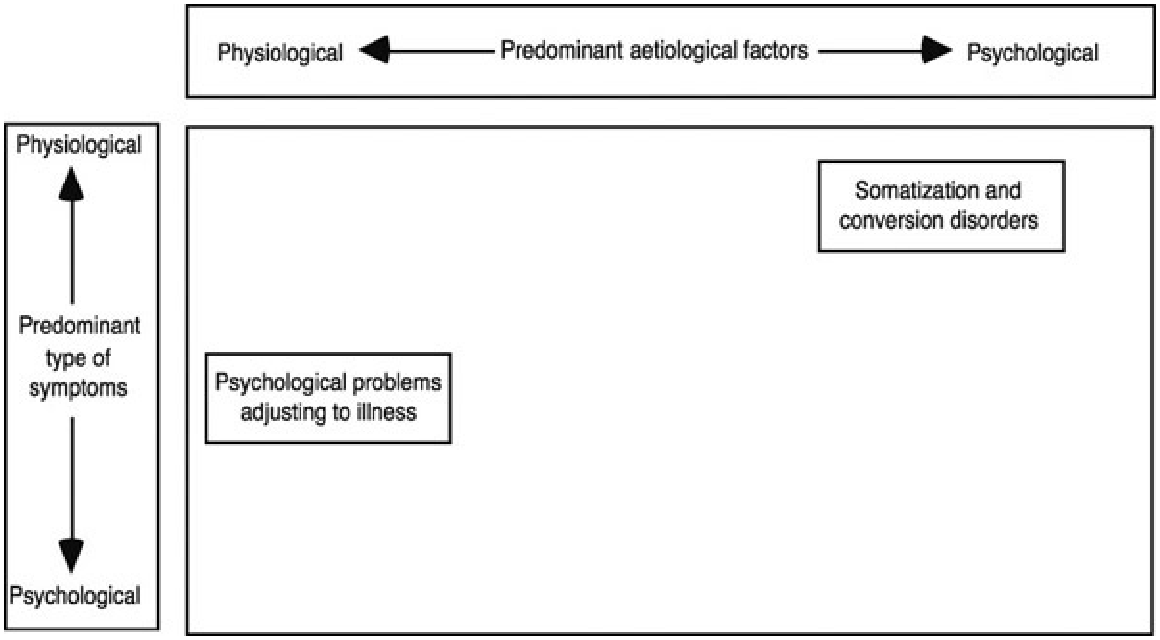


Figure 14.1 Psychological and physiological dimensions along which the aetiology and symptomatology of typical paediatric presentations fall

Table 14.2 Prevalence of various illnesses in children

Disorder	*Prevalence*	*Source*
Headache	8–83%	King et al. (2011)
Abdominal pain	4–53%	King et al. (2011)
Asthma	6.9%	Wennergren (2011)
Seizure disorder	1%	Russ et al. (2012)
Type 1 diabetes	0.2%	International Diabetes Federation (2011)
Life-threatening conditions	0.15%	Randall et al. (2011)

From Table 3.10 in Chapter 3 it may be seen that there is considerable co-morbidity between the ASEBA somatic complaints syndrome on the one hand and other types of behaviour problems such as anxiety and depression, aggression and attentional difficulties on the other hand. In community samples co-morbidity rates vary from 12–20% depending upon the problem types and whether the child or the parent is the informant. In clinical samples co-morbidity rates vary from 23–32%, with the highest rate of co-morbidity being with child-reported anxiety and depression.

Prevalence rates for chronic physical disorders in which psychological adjustment may be a central concern are presented in Table 14.2. In order of decreasing prevalence these are headaches, abdominal pain, asthma, seizure disorder, type 1 diabetes and life-threatening condition (including cancer and other potentially fatal conditions). Reliable prevalence rates for psychological adjustment problems among children with these difficulties are unavailable.

Theoretical frameworks

In this section theoretical accounts of the role of biological and psychosocial factors in pain, conversion symptoms and adjustment to chronic illness will be considered. A summary of central tenets of the main theories which offer explanations of these conditions and related treatment principles are presented in Table 14.3.

Table 14.3 Psychological theories and treatments for somatization problems, conversion problems and problems of adjustment to illness

Theory		*Theoretical principles*	*Principles of treatment*
Biological theories	**Biological vulnerability theory**	Children, because of their genetic heritage or developmental history, may have specific organs or biological systems that are vulnerable to dysfunction. When exposed to stress and/or infection, they develop symptoms associated with their biological vulnerability.	Children are trained to avoid stressors or stimuli to which they are vulnerable.
	General adaptation syndrome theory	A build-up of stress, regardless of the type, leads to a generalized stress response (General Adaptation Syndrome, GAS). The syndrome begins with an alarm stage characterized by autonomic arousal, followed by the resistance stage, during which physiological hyperarousal is maintained, and concludes with the exhaustion stage, during which the body's immune system	Reduce the build-up of stress.

		functions poorly and vulnerability to stress and infections are greatly increased.	
Intrapsychic theories	**Psychoanalytic theories**	Anxiety aroused by an unconscious conflict is converted into physical symptoms which are more tolerable than the anxiety. The primary gain derived from conversion symptoms is anxiety reduction and the secondary gain is that they allow the child to avoid unpleasant activities and solicit kindness from others.	Individual psychotherapy in which transference develops so that feelings associated with unresolved conflict are projected onto therapist. Conflictual feelings, primary gains and secondary gains are interpreted and worked through.
	Psychosomatic theory	Conversion symptoms and chronic pain allow children to communicate distressing emotions to others. Children who have difficulty acknowledging and expressing their emotions and who have experienced illness themselves or observed it in their immediate social network learn to somaticize to express distress.	Psychotherapy in which the communicative function of the symptom is explored and then interpreted. Hypnotherapy in which suggestion is used to modify the symptom.
Interpersonal	**Behavioural**	Conversion symptoms, chronic pain and adjustment problems associated with chronic	Behaviour modification programmes in which well-behaviours are

theories	**theory**	illness are reinforced by rewards associated with these illness behaviours.	rewarded and sick-role behaviours are extinguished.
	Cognitive-behavioural theory	Pain has biological, sensory, cognitive, emotional and behavioural or interpersonal dimensions which are interrelated in complex ways.	Relaxation training to reduce arousal. Cognitive skills training to aid distraction and interpretation of the pain as controllable. Life stress reduction and enhancement of social support.
	Stress and coping	Adjustment to the chronic strains entailed by an illness depends upon the balance of risk and resistance factors. Risk factors include illness-related parameters, functional independence and psychosocial stressors. Resistance factors fall into three categories: interpersonal factors such as competence, easy temperament and problem-solving abilities; socioecological factors including family environment, social support, material and economic resources; and stress-processing factors such as cognitive	Counselling and psychoeducation to help the child and family maximize adherence to the medical treatment regime to minimize illness-related parameters. Self-management skills training to maximize the child’s functional independence. Stress management training to reduce life stress and improve stress-processing resources.

	appraisal and coping strategies.	Arranging membership of self-help groups to increase social support.
Family systems theory	Specific maladaptive family processes determine the extent to which children develop somatization or conversion symptoms or develop adjustment problems to chronic illness. These processes include enmeshment, disengagement, overly rigid or flexible boundaries, triangulation, marital discord and responsivity to illness. The severity of symptoms will also depend upon the child's personal psychophysiological reactivity. The specific symptoms displayed will be determined by the child's physiological vulnerabilities.	Family therapy which aims to modify maladaptive family processes.

Biological perspectives

Two types of biological theories about the role of somatic factors in illness and pain are of particular relevance to paediatric clinical psychology. The first type of theory focuses on children's personal vulnerabilities to somatic complaints, while the second is concerned with the characteristics of stressors which precipitate the onset of the illnesses or symptoms.

Biological vulnerability theory. Biological vulnerability theory argues that different people, because of their genetic heritage or developmental history have specific organs or biological systems that are vulnerable to dysfunction. When exposed to stress and/or infection, they develop symptoms associated with their biological vulnerability (Lask & Fosson, 1989). For example, this theory predicts that children with a family history of asthma and allergies inherit an atopic constitution and bronchial hyperactivity which makes them vulnerable to developing asthma. Other children, with a family history of migraine, have a genetically inherited reactive cerebral vascular system. When exposed to stress, the theory predicts that individuals with bronchial reactivity will develop asthma and those with reactive cerebral vascular systems will develop headaches. These symptoms will have been precipitated by stress, but the nature of the symptoms will have been determined by the biological vulnerability. Available evidence partially supports this position (Roberts & Steele, 2009). The psychoneuroimmune process hypothesis referred to earlier is a variant on the biological vulnerability theory (Dantze, 2005). This position proposes that the brain cytokine system can become sensitized to repeated activation in response to physical illness. When sensitized, the system is less likely to 'turn off' when episodes of physical illness are over, and more likely to be triggered by psychosocial stimuli. This results in somatic symptoms, similar to those associated with early physical illness or injury, recurring in the absence of infection or injury.

General Adaptation Syndrome theory. Theories that focus on the characteristics of the stressor in explaining the development of somatic complaints argue that a build-up of stress, regardless of the type, leads to a generalized stress response. Selye (1975) was the first to propose a General Adaptation Syndrome (GAS), which he suggested occurred in response to chronic stress of any type. The syndrome he proposed begins with an alarm stage characterized by autonomic arousal and preparation for fight or flight. This is followed by the resistance stage, during which physiological arousal drops somewhat but does not return to normal. During this resistance phase the body is attempting to adapt to chronic stress and so its resources for dealing with infections or new stressors are greatly depleted. During the resistance phase the body is vulnerable to many illnesses including asthma, ulcers, hypertension and diseases that result from impaired immune functioning. Finally, there is the exhaustion stage, during which the body's immune system functions poorly and vulnerability to stress and infections is greatly increased.

While Selye's notion of the GAS is supported by a large body of research (Selye, 1975), his formulation fails to explain why some stressors produce different responses than others and why different people show different responses to the same stressor. That is, there is evidence that sudden intense acute stressors and gradually increasing chronic stressors each produce different patterns of arousal (Sarafino & Smith, 2014). There is also evidence mentioned earlier that there is considerable variability in different people's responses to the same stressors which may be partly accounted for by variability in biological vulnerability (Lask & Fosson, 1989). It may also be partly accounted for by differences in psychological vulnerability and coping strategies (Contrada & Baum, 2010).

Psychosocial theories

Psychological explanations of somatic complaints have been developed within the psychoanalytic and psychosomatic traditions which emphasize the role of intrapsychic factors and the behavioural, cognitive-behavioural, stress and coping, and family systems traditions which place greater emphasis on interpersonal factors.

Psychoanalytic theory. A significant portion of Freud's (1894) cases presented with somatic symptoms for which an organic basis could not be found, and this led to the development of his theory of conversion hysteria. According to this theory, anxiety aroused by an unconscious conflict is converted into physical symptoms which are more tolerable than the anxiety. The unconscious conflict in classical psychoanalytic theory usually stems from an unresolved Oedipal or Electra complex. In modern psychodynamic theory, it is argued that anxiety may stem from any conflict (McCullough-Vaillant, 1997). The *primary gain* derived from conversion symptoms is that they keep repressed unresolved conflicts out of awareness and reduce anxiety associated with these conflicts. The *secondary gain* derived from conversion symptoms is that they allow the person to avoid unpleasant activities and they elicit kindness from others.

The treatment of choice, according to the psychoanalytic model is individual psychodynamic psychotherapy in which transference from patient to therapist develops. Feelings associated with the unresolved conflict are projected onto the therapist and these are interpreted, as are the primary and secondary gains associated with the symptoms, and worked through within the context of a long-term intensive therapeutic relationship.

There is a some evidence that intensive individual psychodynamic psychotherapy can have positive effect on the adjustment of children with conditions such as brittle diabetes, and that this effect is related to the emergence and interpretation of unconscious material (Fonagy & Moran, 1990).

Psychosomatic theory. In early versions of psychosomatic theory it was suggested that specific physical symptoms reflected particular personality types. These different personality types were thought to have difficulties expressing specific emotions (Alexander, 1950). For example, wheezing associated with asthma was thought to be a stifled cry and an expression of guilt about unresolved dependency needs. Hypertension on the other hand was thought to reflect repressed hostility. This type of theory has received little empirical support. If anything, there are more similarities than differences between people who develop different psychosomatic complaints. A meta-analysis of studies of adults with asthma, headaches, heart disease, ulcers and other psychosomatic conditions found that in each instance there were significant relationships between the presence of the condition and three major affective states, that is, anxiety, depression and anger (Friedman & Boothby-Kewley, 1987)

Modern revisions of psychosomatic theory argue that in all illnesses the role of physiological and psychosocial factors are inextricably linked (Garralda, 1999; Gledhill & Garralda, 2009; Lask & Fosson, 1989; Lipowski, 1987; Luyten et al., 2013). Conversion symptoms and chronic pain are a way that people communicate or express distressing emotions such as anxiety, depression and anger. Individuals who have difficulty acknowledging and expressing their emotions and who have experienced illness themselves or observed it in their immediate social network learn the language of bodily symptoms. This learning process usually happens outside of awareness. The type of symptoms that develop probably depend upon the person's unique physiological vulnerabilities. So, for example, a child with hyperreactive respiratory system will develop asthma whereas a person with gastrointestinal difficulties may develop recurrent abdominal pain.

Psychosomatic theory argues that individual or family psychotherapy, in which the communicative function of the symptom is explored and interpreted, may help to reduce the role the psychological process play in maintaining or exacerbating physiological processes that more directly underpin the physical symptoms. Offering children skills to control their symptoms and express their feelings and helping families to develop healthier communication patterns are other approaches to treatment that derive from the psychosomatic model.

Behavioural theory. The kernel of behavioural theory is that conversion symptoms, chronic pain and adjustment problems associated with chronic illness elicit behaviour from members of the child's family and network which reinforce the symptoms, illness behaviour or sick-role behaviour (Fordyce, 1976). These reinforcers may include keeping the child out of difficult relationships, helping the child avoid difficult work or school situations, and eliciting attention that might otherwise be withheld. With physical illnesses that develop into conversion disorders, children may be shaped into sick-role behaviour during episodes of illness when members of the child's network inadvertently reinforce illness behaviours. In other cases children consciously or unconsciously imitate the behaviour of ill family members and then this sick-role behaviour is reinforced inadvertently by members of the child's network. In all instances specific environmental or interpersonal cues may develop into discriminative stimuli which initiate the onset of episodes of illness behaviour.

Clinical management of conversion symptoms, chronic pain and adjustment problems associated with chronic illness based on a behavioural theory begins with a functional analysis of the antecedents and consequences of the symptoms or sick-role behaviours of the child within hospital, home and school environments. On the basis of the results of the functional analysis a behaviour modification programme is developed in which specific well behaviours are reinforced and sick-role behaviours are extinguished. Typically such programmes are implemented by nursing staff in hospitals, by parents within the child's home and by teachers within the child's school. Behavioural methods, particularly family-based contingency management programmes, have been found to be particularly effective with conditions such as recurrent abdominal pain and with adherence problems in the management of chronic illnesses such as asthma and diabetes (Brinkley et al., 2002; Hood et al., 2010; Sprenger et al., 2011).

Cognitive-behavioural theory. Pain has been conceptualized within a cognitive-behavioural framework as a multi-dimensional response to actual or threatened tissue damage or irritation (McGrath & Goodman, 2005; McGrath & Hiller, 2002; Trautmann, 2013). Pain, according to the cognitive-behavioural perspective has biological, sensory, cognitive, emotional and behavioural or interpersonal dimensions. At a physiological level, actual or anticipated noxious stimulation leads to the release of algogenic substances at the injury site which causes a message to be sent to the brain via afferent nerves. However, Wall and Melzak have shown that this input may be modulated descending nerve pathways from the cortex and there is not a clear correspondence between the amount of tissue damage and the perceived intensity of pain (McMahon et al., 2013). At a sensory level pain varies in quality (e.g. pounding, stabbing, crushing, searing, smarting or dull), intensity (e.g. mild or excruciating), and duration (e.g. acute or chronic). At a cognitive level, pain intensity and duration are related to the degree to which attention is focused on the injury site and the appraisal of pain as threatening and beyond personal control. At an emotional level anxiety is associated with acute pain and subsides when the pain is alleviated. Depression, helplessness and hopelessness are associated with chronic pain. At a behavioural and interpersonal level, pain is associated with avoidance of situations that place additional demands on coping resources, irritability in interpersonal situations, and loss of peer relationships. Pain behaviour leads to the transformation of remaining relationships into ones where pain behaviour is reinforced. Pain behaviour may be maintained by contingencies such as the possibility of a successful insurance claim or the possibility of compensation.

According to cognitive-behavioural theory, psychological interventions may be directed at a number of levels to alleviate pain. At a physiological level, tension and arousal which compounds irritation of injury sites, may be reduced through tension reduction and anxiety management procedures. These include relaxation, auto-hypnosis or biofeedback. At a cognitive level, children may be helped to reduce the intensity of pain through interventions that help them to distract themselves from pain sensations and also by interventions that help them to construe pain as controllable rather than overwhelming. Distraction, cognitive restructuring and self-instructional training are examples of such procedures. At a behavioural and interpersonal level, interventions that reduce life stress and increase social support for the child within the family and peer group and that reinforce well behaviour while extinguishing pain behaviour may all modify pain experiences. Broadly speaking, these treatment predictions derived from cognitive-behavioural theory have been born out by treatment studies (Blount et al., 2009; Connelly, 2003; Palermo et al., 2010; Sprenger et al., 2011).

Stress and coping theory. Children's adjustment to chronic illness has been conceptualized by Wallander's group within a stress and coping framework (Wallander et al., 2003; Wallander & Varni, 1992, 1998). Chronic childhood illnesses such as cystic fibrosis, cancer or asthma are conceptualized as sources of chronic strains for both children and their parents which repeatedly interfere with the performance of role-related activities. For example, children with cancer experience such chronic strains as treatment-related pain, nausea, hair loss, school absence and reduced peer contact. Their parents experience the chronic threat of bereavement, demands for numerous hospital visits and so forth. According to Varni's model, adjustment to the chronic strains entailed by an illness depends upon the balance of risk and resistance factors. Risk factors include illness-related parameters such as the severity of the illness or the salience of the handicaps it entails, functional independence and psychosocial stressors including major stressful life event and daily hassles. Resistance factors fall into three categories. First, there are personal factors such as competence, easy temperament and problem-solving abilities. Second, there are socioecological factors including family environment, social support and economic resources. Third, there are stress-processing factors, such as cognitive appraisal and coping strategies. For modifiable strains, problem-focused strategies which aim to alter the strains may be most appropriate. For uncontrollable sources of stress, emotion-focused coping strategies such as seeking support, relaxation, re-framing the situation or distraction may be more appropriate. Available evidence for the effectiveness of interventions in paediatric psychology provides some support for this position (Roberts & Steele, 2009).

Intervention based on this model aims to reduce modifiable risk factors and increase modifiable resistance factors. Here are some examples of how risk factors may be reduced. Illness-related parameters such as the degree of the child's handicap may be modified by helping the child and family maximize adherence to the medical treatment regime. Functional independence may be maximized by training the child in self-management skills or providing the child with prostheses that increase independence. Stressors such as daily hassles associated with frequent hospital attendance may be reduced through providing community-based treatment. Some examples of how resistance factors may be increased follow. Children's problem-solving skills for dealing with their illness may be enhanced through psychoeducation. The quality of the child's family environment may be improved through family work which focuses on enhancing the support and autonomy the parents and siblings offer the ill child. Extrafamilial social support may be enhanced through facilitating increased peer contact and through membership of self-help support groups for children with the same illness. Stress-processing resources may be enhanced through stress management training. All of these types of interventions have been shown to enhance adjustment in youngsters with chronic illness (Carr, 2009).

Family systems theory. A variety of family systems models have been developed concerning illness in families (e.g. Altschuler, 1997; Kazak et al., 2009; Minuchin et al., 1978; Rolland, 2012; Wood & Miller, 2003). Of these, Wood's (1994, 1996; Wood & Miller, 2003) is one of the best validated and so will be summarized here. Specific maladaptive family processes determine the extent to which children develop somatization or conversion symptoms or develop adjustment problems to chronic illness. The more of these process that are present, the greater the probability that the child will be symptomatic. These maladaptive processes are:

- extreme emotional enmeshment and over-involvement or disengagement and estrangement
- extremely rigid authoritarian or flexible laissez-faire generational hierarchy
- negative parental relationship or marital discord
- triangulation, where there is a cross-generational coalition or detouring of marital conflict through the child by engaging in conflict about the management of the child's symptoms
- an extremely high or low level of family responsivity to the child's symptoms.

The severity of symptoms will also depend upon the child's personal psychophysiological reactivity, with highly reactive children showing greater symptoms. The specific symptoms displayed will be determined by the child's physiological vulnerabilities.

Assessment based on this model aims to evaluate the status of the child's illness and psychophysiological reactivity and the family's status on each of the process dimensions. Intervention involves family therapy which aims to reduce family reactivity and triangulation and to optimize proximity and hierarchy. Adjunctive marital work may also be necessary to reduce marital discord.

There is a growing body of evidence which supports the links between family processes and disease processes (Kazak et al., 2009; Wood & Miller, 2003). There is also growing evidence that family intervention may improve somatization symptoms and children's adjustment to chronic illness (Carr, 2014a).

Wood's model has been extended to cover the wider social context in which the child lives. Within this extended multi-systemic framework that incorporates the school, health care providers and peer contexts, Wood (1996) argues that process problems similar to those which occur in families may occur and maintain somatic difficulties. Thus children's problems may be maintained or exacerbated if they become involved in enmeshed or disengaged relationships with peers, school staff or health care professionals; if they find themselves in rigid authoritarian or flexible laissez-faire hierarchical relationships with teaches or health care professionals; and if their parents, teachers and health professionals develop negative relationships. Children's somatic complaints may also be maintained if they become triangulated between parents and teachers, or parents and health care professionals, or if member of these wider systems are highly responsive to their somatic complaints.

Multi-systemic consultation based on this broader model involves identifying and resolving problems associated with proximity, hierarchy, negativity in relationships, triangulation and reactivity in the wider system including the child, the family, the school, the peer group and the health care system. Guidelines for convening such wider systems meetings are given in

Chapter 4. The goal of such meetings if for parents, teachers, peers and health care professionals to share the same understanding of the child's illness. A second goal is for parents, teachers and health care professionals to form positive alliances and offer the child a unified and supportive message about management of the somatic problem. This position should offer the child age–appropriate responsibility in management of the complaint.

Assessment

Specific categories of predisposing, precipitating, maintaining and protective factors deserving assessment where somatic complaints and adjustment to chronic illness are the central concern are set out in Figure 14.2 (Eminson, 2007; Gledhill & Garralda, 2009; Roberts & Steele, 2009; Sandberg & Stevenson, 2008). These areas should be covered within the context of the assessment protocol set out in Chapter 4. For specific conditions, such as recurrent abdominal pain, headaches, asthma and so forth, more detailed guidance on assessment is contained later in the chapter.

Predisposing factors

Both personal and contextual factors may predispose youngsters to developing somatic complaints and illness-related adjustment problems. Genetic or constitutionally based physiological vulnerabilities to particular somatic conditions are the principal personal biological predisposing factors requiring assessment in cases where somatic complaints are the central concern. At an intrapsychic level a high level of suggestibility, a temperament characterized by behavioural inhibition, and certain personality traits, notably neuroticism, perfectionism, and high achievement orientation may render youngsters vulnerable to developing somatization problems, especially if their family culture is illness oriented. Low intelligence, difficult temperament, low self-esteem and an external locus of control, especially for health-related matters, may predispose youngsters to mismanage complex medical regimes.

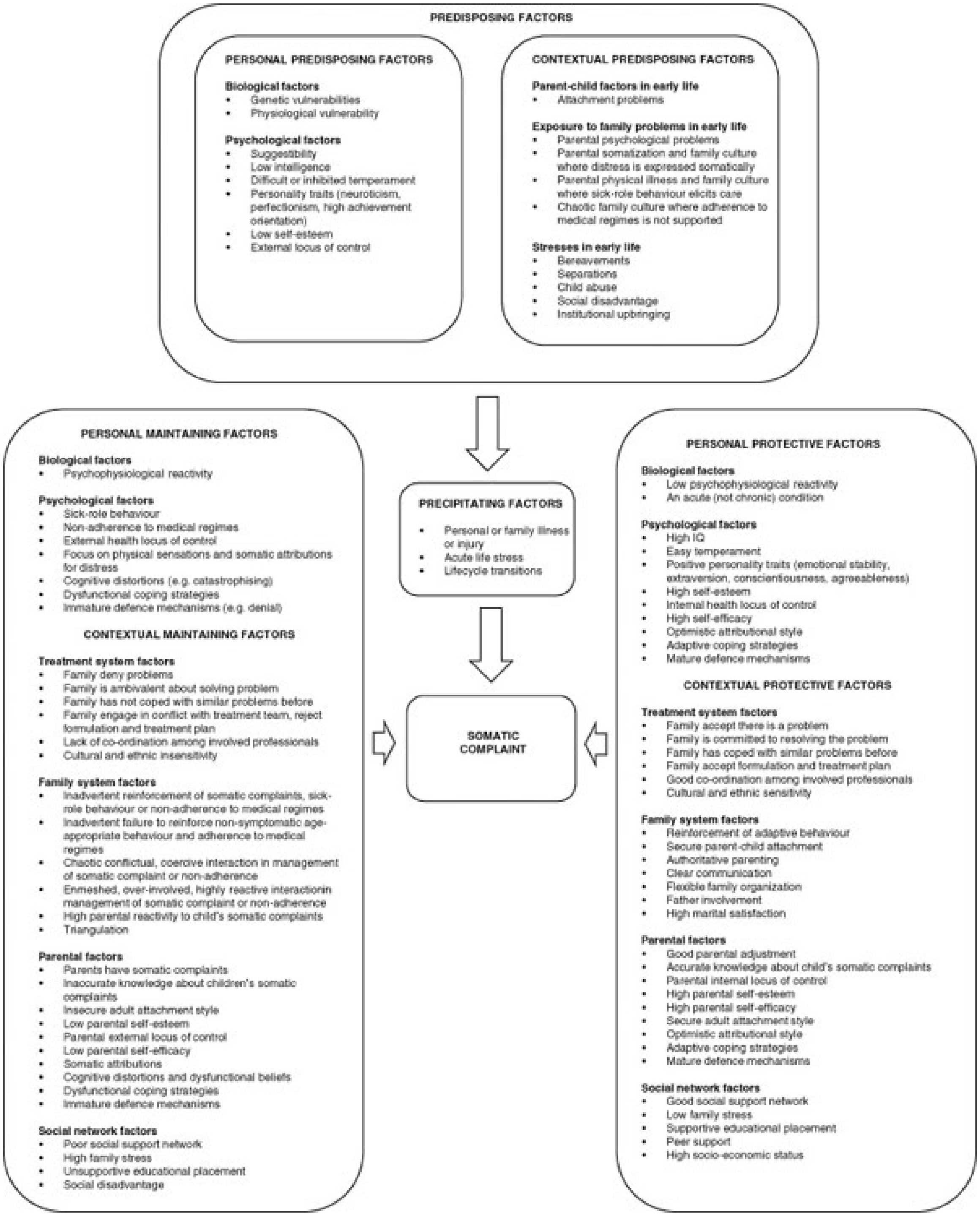


Figure 14.2 Factors to consider in the assessment of somatic complaints

At a contextual level, early attachment problems, parental psychological problems and exposure to a range of stressors in early life including bereavements, long separations from parents, child abuse, social disadvantage and institutional upbringing may predispose children to developing somatic complaints later in life. Two aspects of family culture may predispose youngsters to developing somatization problems through a process of modelling. In the first, emotional expression is inhibited and distress is communicated through somatic complaints. In the second, children observe that sick-role behaviours of other family members elicit excessive care and concern. Children who come from a chaotically organized family may be predisposed to developing adherence problems, since following through on plans is not part of the family culture.

Precipitating factors

Somatization problems and adjustment to chronic illness may be precipitated by biological factors such as personal illness or injury or when another family member is injured or becomes ill. Major stressful life events or lifecycle transitions may also precipitate problems in adjusting to chronic illness or somatization difficulties.

Maintaining factors

Somatization problems and difficulties adjusting to chronic medical conditions may be maintained by a range of personal and contextual factors. At a biological level, extreme psychophysiological reactivity in response to minor day-to-day physical and psychosocial stimuli or trigger situations may maintain somatic complaints. This may be associated with the tendency to focus attention on bodily physical sensations and to attribute normal variations in bodily sensations to somatic illness rather than psychosocial factors. Somatic complaints may be maintained by an external health locus of control, that is, beliefs that somatization symptoms or complaints associated with chronic illness or treatment side effects are uncontrollable. These types of beliefs may prevent youngsters from developing coping strategies for managing symptoms and from adhering to medical treatment regimes. Thus youngsters may lapse into sick-role behaviour patterns or behaviour patterns where non-adherence is a central feature. With chronic illness, the use of immature defences such as denial of the nature and severity of the condition may lead to non-adherence to treatment regimes and this may maintain adjustment problems. With somatization problems, denial of the role of suggestion in producing the symptoms may maintain the somatic complaints. Such denial may also entail a primary gain since it permits the youngster to avoid anxiety provoking issues which would have to be faced if the somatization symptoms were resolved. Dysfunctional coping strategies such as seeking questionable advice from unqualified people about illness management, wishful thinking and drug misuse may all maintain somatic complaints and illness-related adjustment problems. In all somatic conditions cognitive distortions such as catastrophizing about aspects of the condition may contribute to the maintenance of the symptoms by increasing autonomic arousal and eventually reducing the efficiency of the immune system. This is more likely to occur where children are characterized by a high level of physiological reactivity. In this way, biological and psychological maintaining factors are closely linked.

With respect to contextual maintaining factors, members of the child's family, school, peer group and health care system may inadvertently reinforce or give the child secondary gains for somatization symptoms, non-adherence to medical treatment regimes and behaviour associated with the sick role. They may also inadvertently fail to selectively reinforce behaviours associated with a non-symptomatic role, adherence to medical treatment regimes and age-appropriate autonomy. These contingencies are more likely to occur in two distinctive family contexts. In the first, the family is chaotic, disorganized and lacks a clear parent–child hierarchy; parents may have psychological or somatic problems; and their exchanges with children about their somatic complaints may be conflictual or coercive. In the second, the family is rigidly enmeshed, with an authoritarian hierarchy; parents have high expectations of children with which children strive to comply; parents present the family as problem-free and harmonious; and exchanges with children about somatic complaints are over-involved. In both of these types of families, parents are highly reactive to the child's somatic complaints, and often their reactions involve triangulation where parents overtly or covertly adopt differing positions on how best to manage the child's condition.

Such patterns of parenting and family organization may be partially maintained by parents' personal experience of somatic complaints or psychological difficulties. Where parents have insecure attachment styles, low self-esteem, low parental self-efficacy, an external locus of control, a tendency to attribute somatic discomfort to physical illness, cognitive distortions, dysfunctional beliefs, immature defences and poor coping strategies their resourcefulness in managing their children's difficulties may be compromised. Parents may also become involved in problem-maintaining interactions with their children if they have inaccurate knowledge about the role of psychological factors in the genesis and maintenance of somatic complaints and illness-related adjustment difficulties.

Somatic complaints and illness-related adjustment problems may also be maintained by high levels of stress, limited support and social disadvantage within the family's wider social system, since these features may deplete parents' and children's personal resources for dealing constructively with illness. Educational placements which are poorly resourced and where teaching staff have little time to devote to home–school liaison meetings may also maintain illness-related adjustment problems and somatic complaints.

Within the treatment system, a lack of co-ordination and clear communication among involved professionals including family physicians, paediatricians, nurses, teachers, psychologists and so forth may maintain children's somatic problems. It is not unusual for various members of the professional network to offer conflicting opinions and advice on the nature and management of somatic complaints to children and their families. These may range from viewing the child as physically ill with secondary psychological problems deserving careful management to seeing the child as healthy but malingering and deserving a disciplinarian management. Where co-operation problems between families and treatment teams develop, and families deny the existence of the problems, the validity of the diagnosis and formulation or the appropriateness of the treatment programme, then the child's difficulties may persist. Treatment systems that are not sensitive to the cultural and ethnic beliefs and values of the youngster's family system may maintain somatic problems by inhibiting engagement or promoting dropout from treatment and preventing the development of a good working alliance between the treatment team, the youngster and his or her family. Parents' lack of experience in dealing with similar problems in the past is a further factor that may compromise their capacity to work co-operatively with the treatment team and so may contribute to the maintenance of the child's difficulties.

Protective factors

The probability that a treatment programme will be effective is influenced by a variety of personal and contextual protective factors. It is important that these be assessed and included in the formulation, since it is protective factors that usually serve as the foundation for therapeutic change. At a biological level, having an acute rather than a chronic condition and relatively low psychophysiological reactivity to stimuli and situations that may exacerbate somatic complaints are protective factors. A high IQ, an easy temperament, positive personality traits (emotional stability, extraversion, conscientiousness and agreeableness) high self-esteem, an internal health locus of control, high self-efficacy and an optimistic attributional style are all important personal protective factors. Other important personal protective factors include mature defence mechanisms and functional coping strategies, particularly good problem-solving skills and a capacity to make and maintain friendships.

Within the family, parental reinforcement of children's adaptive (non-sick-role) behaviour, secure parent–child attachment and authoritative parenting are central protective factors, particularly if they occur within the context of a flexible family structure in which there is clear communication and high marital satisfaction and both parents share the day-to-day tasks of childcare.

Good parental adjustment is also a protective factor. Where parents have an internal locus of control, high self-efficacy, high self-esteem, secure attachment style, an optimistic attributional style, mature defences and functional coping strategies, then they are better resourced to manage their children's difficulties constructively. Accurate knowledge about the role of psychological factors in illness is also a protective factor.

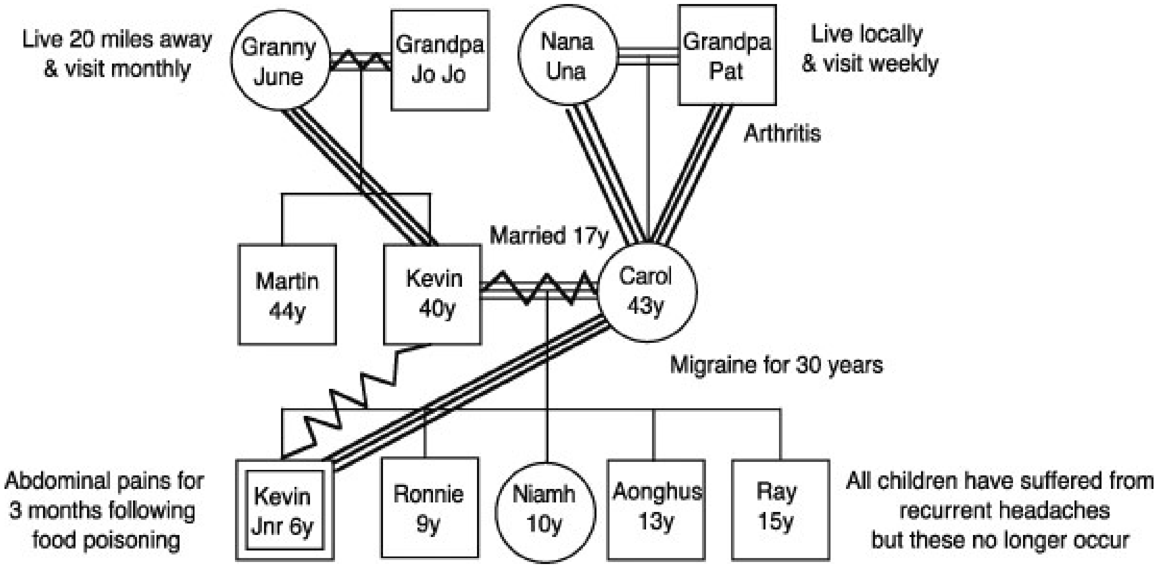
Within the broader social network, high levels of support, low levels of stress and membership of a high socio-economic group are all protective factors for children with somatic complaints and illness-related adjustment difficulties. Where families are embedded in social networks that provide a high level of support and place few stressful demands on family members, then it is less likely that parents' and children's resources for dealing with health-related problems will become depleted. A well-resourced educational placement may also be viewed as a protective factor. Educational placements where teachers have sufficient time and flexibility to attend home–school liaison meetings if invited to do so contribute to positive outcomes for children with somatic complaints and illness-related adjustment problems.

Within the treatment system, co-operative working relationships between the treatment team and the family and good co-ordination of multi-professional input are protective factors. Treatment systems that are sensitive to the cultural and ethnic beliefs and values of the youngster's family are more likely to help families engage with, and remain in treatment, and foster the development of a good working alliance. Families are more likely to benefit from treatment when they accept the formulation of the problem given by the treatment team and are committed to working with the team to resolve it. With somatization problems, this requires parents and children to be able to accept a complex multi-factorial account of symptoms rather than a simple dichotomous division of symptoms into those due to organic factors and those due to psychological factors. With adherence problems, the child's ability to follow and internalize rules and the parents' willingness to use contingency management programmes are protective factors. With adjustment to chronic illness, the families' openness to the grieving process and to using support is a protective factor. Where families have successfully faced similar problems before, then they are more likely to benefit from treatment and in this sense previous experience with similar problems is a protective factor.

Formulation

At the conclusion of the assessment phase it is useful to draw together salient points from the history and presentation into a formulation which explains the somatization difficulty or illness-related adjustment problem with reference to specific predisposing, precipitating and maintaining factors. Protective factors may also be highlighted and management plans should take account these strengths. Examples of formulations are given in Boxes 14.1–14.5.

Box 14.1 A case of recurrent abdominal pain



Referral. Kevin was referred by his family doctor because of recurrent abdominal pain. The pains had occurred regularly for 3 months following an episode of food poisoning. A paediatric evaluation had been conducted and all medical investigations were negative. The family doctor requested a psychological assessment of the condition with a view to psychological treatment. There was a good relationship between the psychologist and the family doctor who was quite psychologically minded and adopted a similar approach to recurrent abdominal pain as that set out in this chapter.

Presenting problems. In an intake assessment interview with Kevin and his parents, it became clear that the pains were worst in the evening and prevented Kevin from sleeping. His mother would sit with him and rub his stomach to ease the pain. Usually the rest of the family would be watching TV or doing their homework. Eventually Kevin would nod off to sleep. Occasionally he would awake in the night and sometimes the pains would recur. In these instances he would get into his mother's bed and the father, Kevin Senior, would sleep in the son's bed. Carol was supported in her management of the problem in this way by her parents but not by the paternal grandparents.

Often Kevin Senior and Carol would have heated discussions about the problem, its cause and the best way to manage it. Carol believed that the pain was due to residual food poisoning or a viral condition. The original poisoning occurred while on holidays in Spain. The holiday was a disaster. The hotel had not been fully built. The rooms were cramped and Kevin Senior had numerous rows with the management, the other guests and Carol. The holiday had been Carol's idea. The father believed that Kevin's pains were a sham much of the time, but occasionally took the view that they may have been abdominal migraine, since all of the other children had suffered from headaches at one point or another in the past and Carol suffered from migraine.

Developmental history and child assessment. Kevin Junior had an unremarkable developmental history. He showed no food intolerances and abdominal X-rays were normal. He was a high achiever at school, meticulous in his work and had a small number of close friends. He was in his second year of primary school when referred. He regularly ate a balanced diet and got regular exercise. He believed that his pains were due to some undiagnosed organic illness and worried about this, especially at night.

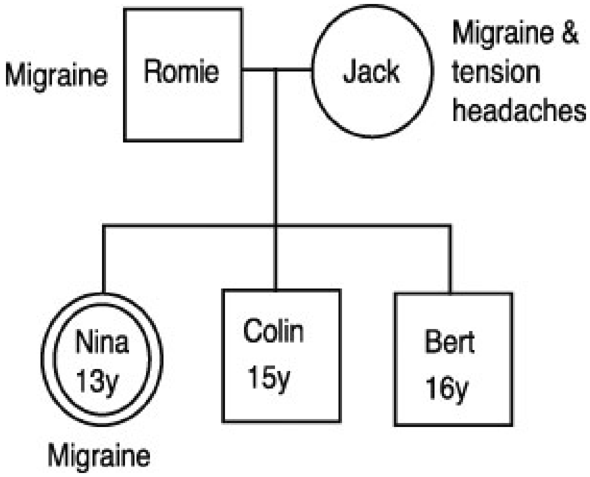
Psychometric assessment showed that he was of exceptionally high intelligence and that his problems were quite circumscribed. On a short form of the WISC-IV he obtained a FSIQ of 124 and on the WRAT-3 his reading quotient was 130. On the CBCL, his scores on all scales fell within the normal range, with the exception of the somatic complaints sub-scale which was within the abnormal range.

Family history. Kevin's mother, Carol, had migraine and Kevin's four siblings had a history of headaches. On the mother's side there was an illness-oriented family culture and the grandfather suffered from arthritis. Carol's family lived nearby and were very close. They also visited regularly and conversed a good deal about Kevin's condition. The father's family lived further away, were less close than the mother's family, visited less frequently and viewed Kevin's difficulties as a minor event that would resolve with the passage of time.

Formulation. Kevin was a very bright 6 year old boy with a 3-month history of recurrent abdominal pain, the onset of which was precipitated by an episode of food poisoning. The mother's history of migraine and the siblings history of headaches suggest that he may be biologically and/or psychosocially predisposed to developing pain problems. The pain was maintained by Kevin's anxiety that some organic disease process had not been detected and by his parents' inadvertent reinforcement of his sick-role behaviour. This in turn may have been maintained by the parents' difficulty in reaching agreement on how best to manage Kevin's reports of recurrent pain, so that Kevin became triangulated between his parents. Differing family cultures and experiences of illness may have underpinned this process. Protective factors included the child and parents' wish to work with the team to resolve the problem; the family's success in managing headaches in the past; the high level of support that Kevin obtained from his family and peers; and his high intelligence.

Treatment. Treatment in this case involved a series of family sessions in which the formulation was explained and family members' doubts about it were aired. Kevin's parents were coached in training him in relaxation skills to help him manage episodes of pain. In addition, a reward system was set up, where Kevin earned smiling faces on a face chart for sleeping in his own bed for more than six hours per night. Six faces could be exchanged for a trip to the Zoo. The six-session programme led to a resolution of his problems over a period of 2 months. The tension between Kevin senior and Carol decreased as treatment progressed.

Box 14.2 A case of severe migraine

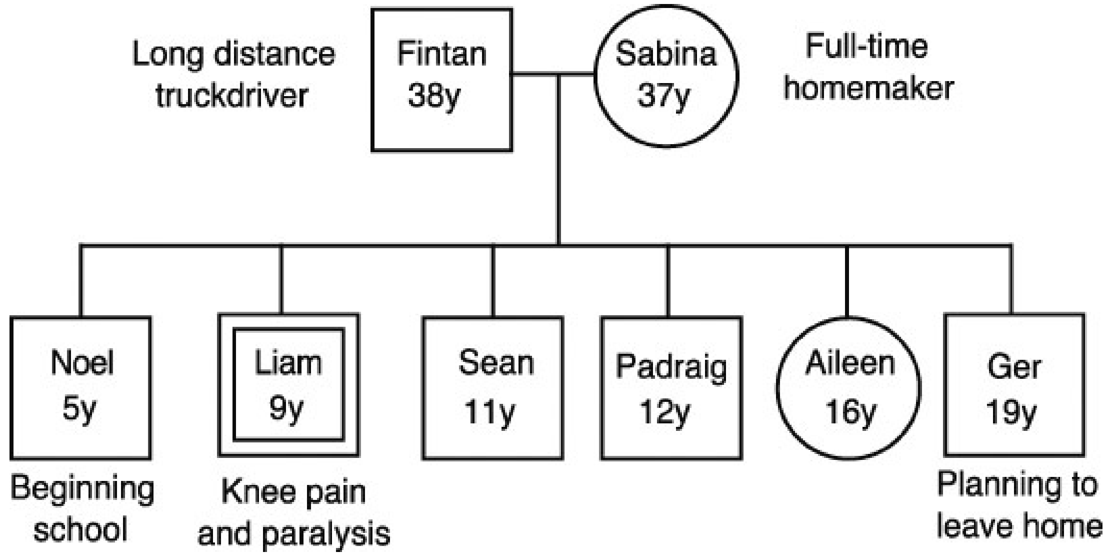


History and presentation. Nina, aged 13, who suffered from migraine was referred by her family doctor for stress management training. The referral occurred at the request of both parents who also suffered from migraine themselves and the mother in addition suffered from tension headaches which often developed into migraine. Both parents had attended a day-long stress management training programme for adults as part of a staff development programme in a major financial institution where they both held senior positions. This led them to ask their family doctor to refer them for a similar service for their daughter. Nina's migraine had developed gradually. She had very occasional headaches up until the age of 8 and thereafter the frequency and severity of the headaches had increased. She now had one or two a month and found that they interfered with schoolwork, hockey and her social life. The headaches usually occurred on the right side of the head and were preceded by an aura. On some occasions they were precipitated by excitement or stress associated with important hockey matches. On others, they were precipitated by eating chocolate during a period of excitement, for example at Christmas or Easter. Nina's parents were very understanding of her difficulties and encouraged her to withdraw from social interaction when she was having a migraine attack. She would lie in her room and listen to quiet music and take ergotamine. The episodes would typically subside after a night's sleep but sometimes persisted for 48 hours.

Formulation. Nina was a 13 year old girl who had bimonthly migraine attacks over a 4-year period. There was a positive family history for migraine on both the mother and the father's side of the family, so she probably had a biological predisposition to developing the condition. Attacks were precipitated by sustained periods of stress and excitement and also by some foods, notably chocolate. She coped well with the attacks using medication and rest and was well supported in this approach by her parents who took an unintrusive approach to her condition.

Treatment. An explanation of migraine following a simplified version of the model set out in Figure 14.6 was given to Nina and her parents. In a series of four sessions Nina was trained in relaxation and visualization skills (described in Figure 12.3). She audio-recorded these sessions and used the recordings to help her practice the exercises at home. She was also trained to keep a pain diary similar to that presented in Figure 14.3. She was subsequently seen for two further sessions each following a migraine attack to review the precipitating events and the effectiveness of the relaxation and visualization skills for pain management. Nina was able to use the relaxation skills to make the pain more bearable. She also found that she tended to catastrophize while in pain and was taught to challenge these stress-inducing thoughts using the CTR method described in Chapter 12 and focus her attention on visualization and relaxation. At follow-up the headaches occurred less frequently and interfered less in her schoolwork and leisure activities.

Box 14.3 A case of conversion symptoms



Referral. Liam was referred by a paediatrician because of persistent knee pain and paralysis of the right leg. The pain followed an incident where his brother Ger, aged 18 at the time, jumped on him accidentally while at the swimming pool. This incident occurred about 6 months before he was referred to the psychology service. There was initially some bruising and the possibility of some torn ligaments. However, the family doctor saw it as a minor injury and was surprised when Liam returned to him repeatedly with the condition becoming gradually worse, until finally, Liam could no longer walk without a crutch and found the leg was hypersensitive to touch.

History of medical treatment. Both parents, Fintan and Sabina, were convinced that Liam had a serious injury requiring orthopaedic attention. A referral was made in the first instance to a paediatrician, and subsequently to an orthopaedic surgeon and physiotherapist, who all took the view that physiological factors could not account for the extent of disability. Throughout this process, the parents became more and more convinced that some important investigation had been overlooked or that the results of X-rays and the physiotherapist's assessment had been inaccurate or misinterpreted. The case was subsequently referred back to the paediatrician and then on to psychology. Both parents strongly opposed the referral.

Developmental history. Liam's developmental history was essentially normal and his current academic and peer group adjustment were within normal limits. At school, he missed playing football and hoped that he would recover and be able to play again soon. He attended a local primary school with his brother Noel, aged 5 years.

Family situation. At home, Liam and Noel were the central focus for their mother's attention. The father, Fintan, was a long distance lorry driver and spent little time at home. Also the siblings spent much of the time away from home. Sean, aged 11 years; Padraig, aged 12 years; and Aileen aged 16 years were all at secondary school and commuted a long distance each day so they left home early and did not arrive home until 7 in the evening. Ger, commuted to university and was due to leave home within a few months to live on campus because the travelling was very tiring. Sabina, the mother, would collect Liam and Noel from school each day and drive them home. A regular topic of conversation was the inadequate medical care that Liam had received. However, there was no talk of suing the swimming pool management for compensation. All family members were fit and healthy. Within the wider extended family, there were no major physical or psychological problems.

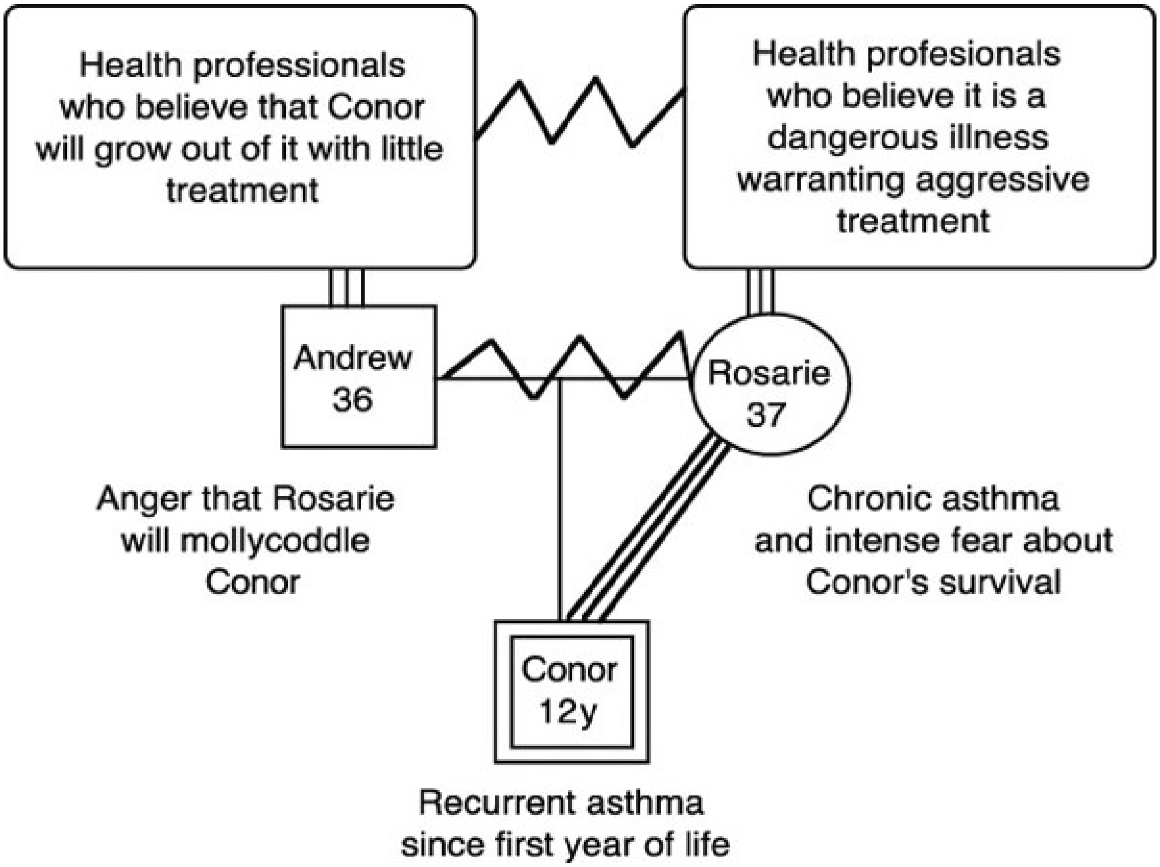
Responsivity of the symptom to suggestion. During a family assessment interview, Liam was invited to relax and visualize the hot air balloon scene described elsewhere in this chapter. Once in a light trance he was invited to anaesthetize the pain in his leg and walk unaided, which he did without any problem, to the surprise of his parents and siblings. Once out of the trance the pain and paralysis returned as expected.

Formulation. Liam was a 9 year old boy who presented with conversion symptoms, specifically a pain in his left knee and related paralysis, which prevented him from walking unaided. The onset of the symptoms was precipitated by a knee injury that occurred during a swimming pool accident, and which subsequently healed satisfactorily. Liam may have been predisposed to developing the conversion symptoms because of his high level of suggestibility and previous knee injury. The symptoms were probably maintained by Liam's interactions with significant members of his network including parents, siblings and health care professionals, who had conflicting views about the role of tissue damage or disease processes in the aetiology of the symptoms. In Liam's presence the parents repeatedly stated in very strong terms that a physical illness or injury had gone unnoticed. Health professionals expressed a lack of certainty about the cause of the symptoms. With his high level of suggestibility, this led to the persistence of his pain experience. Protective factors in this case included the family support available to Liam and the willingness of his parents to participate in a psychological assessment process about which they had reservations.

Treatment. There were three subsequent family meetings in which Liam and his parents were presented with the formulation and offered an opportunity to discuss their doubts about it. Both parents were trained to help Liam enter a light trance, anaesthetize his leg and walk unaided. They conducted this procedure at home with Liam on a regular basis, gradually extending the distance walked. Liam discarded his crutch and began to walk with a stiff leg within a month of the first consultation. At follow-up a year later he was playing football again.

Box 14.4 A case of asthma

Referral. Conor, an 11 year old boy with a lifelong history of asthma, was referred because the frequency of his attacks had increased to two per month over the preceding year. Conor was an only child of high average ability who had an outstanding academic record. He was also an accomplished chess player. Despite his interest in soccer, his asthma prevented him from playing. However, when he did play he was very talented.



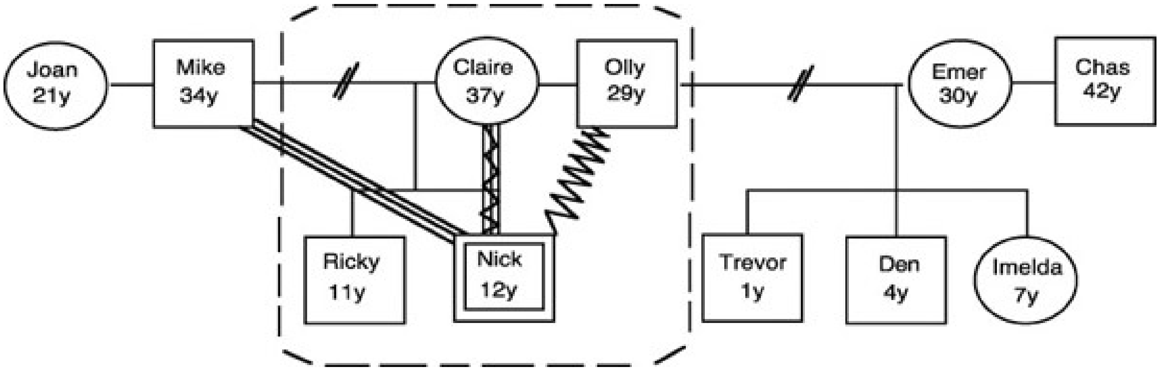
History of the problem. Conor's attacks occurred when he developed chest infections (which he often did) and when he engaged in physical exercise. He avoided situations where he would be exposed to dust and cats or dogs, since he was allergic to them. His mother, Rosarie, usually treated his attacks with oral corticosteroids and salbutamol delivered by inhaler or a nebulizer. She would sleep in his bed or keep an all-night vigil to ensure that he continued to breathe. She feared that he would have a hypoxic seizure. The father, Andrew, tolerated this approach but occasionally argued with Rosarie about it, since he thought that she was mollycoddling Conor and preventing him from becoming an athlete. On some of these occasions the couple would refer to conflicting advice given by the various child health professionals that they had consulted regarding Conor's condition. A stalemate would develop. Usually, Rosarie brought Conor to the family doctor or the hospital alone, and Andrew would withdraw into his work responsibilities.

Family history. During a family assessment interview, it became clear that Rosarie's fears about Conor were based on the experience of the exacerbation of her own asthma which occurred during her pregnancy with Conor. She had a bad attack and on one occasion almost passed out from lack of oxygen. Andrew's views were based on the belief that illness is made worse by too much attention and that illness is a sign of weakness. These were views held strongly by both of Andrew's parents.

Formulation. Conor presented with poorly controlled asthma. His referral was precipitated by an increase in the frequency of his asthma attacks. He was predisposed to asthma because of a genetically inherited physiological vulnerability and also because of the anxiety-laden and illness-sensitive family environment into which he was born. Episodes of asthma were precipitated by exercise-related arousal and infection. They were maintained by the emotionally intense interaction pattern of triangulation involving Conor and his parents. This in turn was maintained by conflicting views about the management of asthma given by other involved health professionals.

Treatment. The formulation was presented to Conor and his parents in a family session and subsequently the boy and the parents were seen separately for four sessions each. Conor was trained to independently manage his asthma on a day-to-day basis. This involved using his inhalers, avoiding precipitants, checking his peak flow meter and keeping a diary of these activities. Concurrently his parents were invited to explore ways that they could allow Conor to have increased independence in managing his asthma and ways in which they could minimize the degree to which they exposed Conor to their intense feelings of concern about his condition. They agreed to ban all talk of asthma in his presence unless he reported that his peak flow meter fell below a level set by the family doctor. Once this limit was breached, Andrew was to bring him to the family doctor for an immediate assessment. This plan was discussed and agreed with the family doctor and paediatrician. In addition, Rosarie was encouraged to join a support group for parents of children with asthma and use that forum to discuss her intense feelings about Conor's condition. The family doctor some months later reported that a reduction in the frequency of asthma attacks occurred.

Box 14.5 A case of poorly controlled diabetes



Referral. Nick, a 12 year old boy, was referred because of poor diabetic control. He refused to test his blood sugar level regularly, preferring to assess this by intuition alone. He also violated his diet frequently. These difficulties had emerged in the 6-month period before his parents' separation. The referral was made about a year following the separation, and was precipitated by a hospital admission following a hyperglycaemic crisis. Nick was shocked by the crisis but his anxiety about the episode was coupled with anger at his mother and step-father. He blamed them for the crisis. He was angry at his mother for not reminding him about his diet and angry at Olly, his mother's live-in boyfriend, for living in his house and occupying the centre of his mother's attentions.

Child's development and current status. Nick's developmental history had been normal. He and his parents had managed the control of his diabetes quite well until he was about 10 years old. His school performance and peer relationships had also been well within normal limits until that time. A psychometric evaluation using the WISC IV, the WRAT-3 and the Child Behaviour Checklist and the Teacher Report Form showed that Nick was of high average intelligence and his basic academic skills were within the normal range, but he displayed clinically significant internalizing and externalizing behaviours at home and at school. On a series of diabetes-related assessment instruments he showed adequate knowledge of the condition, but little belief that he could control his diabetes and a strong sense that his mother and step-father were unsupportive of his attempts to manage his condition.

Family development. When Nick was 10, his mother Claire found out that Nick's father, Mike, was having a clandestine affair with Joan, a 19 year old woman. An episode of intense marital conflict ensued which culminated in a separation after about six months. Nick and his younger brother Ricky remained living with their mother and visited with their father on a regular basis. Nick idolized his father and blamed the parental separation on his mother. When Olly appeared on the scene and moved into the house, Nick became extremely angry at him and his mother. This coincided with a radical deterioration in his diabetic control and academic performance.

Nick's parents each took a different approach to the issue of adhering to the diabetic self-care regime. His father, Mike, saw the regime as Nick's responsibility and so rarely even mentioned it. From time to time, without thinking, Mike would allow Nick to violate his diet. The mother, Claire, in contrast, worried about Nick's lax approach to adherence and regularly reminded him to do his tests and take his insulin. This often led to conflict between Nick and Claire. The ongoing acrimony between Claire and Mike prevented them from taking a co-ordinated approach to helping Nick develop better control over his condition.

Formulation. Nick was a bright 12 year old boy with poor diabetic control. The diabetic control had deteriorated significantly following Nick's parents' separation and his mother's new partner coming to live at his house. This poor control was due to Nick's personal beliefs about the uncontrollability of the condition and difficulties his separated parents and their new partners had in taking a co-ordinated, consistent, non-conflictual and supportive approach to helping him develop good diabetic self-care routines.

Treatment. Treatment in this case involved both individual and family sessions. A series of sessions with Nick and his father, Nick and his mother, and one session with Nick and both of his parents were held. Within these sessions, the focus was on helping both parents develop non-conflictual ways to check Nick's adherence to his regime regularly. The joint session focused on establishing a way for both parents to communicate with each other about Nick's adherence when he made transitions from one household to another. Within the individual sessions Nick was given space to ventilate his intense feelings about his parents' separation and to explore how these feelings interfered with adequate self-management of his diabetes. He also learned stress management skills to reduce arousal which adversely affected his diabetic control.

Management

The following general principles for the management of somatic problems based on the treatment outcome literature and clinical experience are presented (e.g. Carr, 2009; Eminson, 2007; Gledhill & Garralda, 2009; Roberts & Steele, 2009; Sandberg & Stevenson, 2008). In subsequent sections guidance will be given on how these general principles may be adapted for specific types of somatic problems, such as headaches or diabetes. A psychological approach to somatic complaints may include one or more of the following elements:

- close liaison with referring physician
- careful contracting for assessment
- thorough child and family assessment
- careful contracting for treatment
- family-based approach
- psychoeducation
- monitoring of symptoms
- relaxation skills training
- cognitive restructuring and self-instructional skills training
- coaching parents in contingency management
- relapse management training
- arranging family membership of a support group.

Liaison with referring physician

Work closely with the referring physician and other members of the medical team including the family physician, the paediatrician, nurses, physiotherapist and so forth. If possible, clarify the precise question to which the referrer requires an answer. In some instances these questions will be highly specific, for example, a request to help a youngster with diabetes improve adherence to a self-care regime. In others, requests may be more global, for example, a request to offer an opinion on the management of a child with recurrent abdominal pains and headaches. If possible, clarify the referrer's views of the somatic problem. For children to resolve somatization and conversion symptoms, to manage pain, or adhere to complex regimes in managing chronic illness, they need a clear, consistent message from all members of the family and health care network. Often they received conflicting and confused messages, with one parent or health care professional emphasizing the primary role of physiological factors while the other parent and other health care professionals may define the problem in intrapsychic terms. Given the child's need for clarity and the potential for confusion, it is essential that the referring physician and the psychologist understand each others' positions clearly and work towards a shared view of the problem and a shared management plan.

Contracting for assessment

Parents and children may have difficulty understanding the relevance of a psychological consultation when the chief complaint is somatic. This difficulty may be based on a belief that symptoms are either due to organic factors or psychological factors. Thus, part of the process of offering a contract for assessment involves inviting families to accept the view that in all illnesses both psychological and physiological factors contribute to the development of symptoms, the perception of symptoms, adherence to management plans, and adjustment to illness-related stresses. It is useful to use concrete examples to illustrate these points. For example,

- Stresses like changing jobs or going into a new class reduce the efficiency of the immune system in fighting infections.
- If people are engrossed in an activity like playing rugby, they may not perceive pain associated with injuries.
- If youngsters are sad, angry or confused about their illness and its treatment, they may not follow their treatment programme properly and so become worse.
- Illnesses may place a strain on all family members, and it may be useful to explore the best way to manage this stress.

If parents remain confused about the relevance of a psychological assessment, include the referring physicians in further contracting meetings and invite them to explain why a purely medical approach to the problem is not in the child's best interests.

Assessment

Unless a highly specific and focused referral question has been asked, conduct a thorough assessment of the child and family following the protocol set out in Chapter 4. Supplement this protocol with assessment procedures that have been developed for the specific somatic complaint with which the child presents. Details of areas of inquiry for clinical interviews for a variety of somatic complaints such as recurrent abdominal pain, headaches, asthma, and diabetes are given later in the chapter. Specific assessment instruments for various conditions are listed in Table 14.4.

If these assessment procedures suggest the presence of other difficulties such as learning problems, mood problems, risk of self-harm, the possibility of child abuse, or anticipatory grief associated with a life-threatening illness, extend the assessment to cover these issues which are described in other chapters.

Following assessment, construct a formulation outlining the predisposing, precipitating, maintaining and protective factors for the core problem. Then construct a psychological case management plan based on the formulation. This plan will usually include feedback to the referring physician and appropriate members of the treatment team, feedback to the family, and contracting for treatment.

Contracting for treatment

If the assessment sessions have been used as an opportunity to build a good working alliance with the child and the parents, and if a shared position has been developed by the psychologist and the other members of the multi-disciplinary team, particularly the referring physician, then contracting for further treatment is unlikely to be problematic. The most common problem which occurs at this point in the psychological consultation process is that the parents or the child are unable to accept a multi-factorial explanation of the presenting problems which includes both biological and psychosocial factors. The main pitfall to avoid when this happens is to become involved in a heated argument about the ‘truth’ or validity of the formulation. There are various ways to handle a family’s rejection of a formulation. One is to acknowledge that the formulation is tentative and that there may be other explanations for the child’s difficulties. The psychologist may then offer to help the child and family develop skills to better cope with the somatic complaint, regardless of its origins. Another option is to offer to meet the family again to discuss treatment options when they have obtained a second medical or psychological opinion. A third option hinges on the observation that the process of engaging in multiple medical investigations and seeking multiple second opinions probably reinforces MUSs and somatization problems. With this in mind, it may be useful in some cases to let families know this and acknowledge the dilemma they face. They may continue to seek further opinions and in doing so inadvertently reinforce the MUSs. Or they may accept a multi-factorial formulation, and risk leaving a potentially treatable medical condition untreated. Some families of children with MUSs do not engage in psychological treatment. Where families accept a contract for treatment, intervention may include psychoeducation, individual work for the child focusing on self-monitoring skills, and symptom management strategies and family sessions focusing on coaching the parents in contingency management and optimizing family support for the child.

Table 14.4 Psychometric instruments for the assessment of somatic complaints

Construct	*Instrument*	*Author and Date of Publication*
Health-related quality of life	Paediatric Quality of Life Inventory Version 4.0 (PedsQL 4.0)	Varni, J., Seid, M., & Kurtin, P. (2001). PedsQL 4.0: Reli of the Paediatric Quality of Life Inventory Version scales in healthy and patient populations. *Medical* PedsQL is available at http://www.pedsql.org/about_p
	Child Health Questionnaire (CHQ)	Landgraf, J., Abetz, L., & Ware, J. (1999). *The CHQ use second edition*. Boston: HealthAct. https://www.healthactchq.com/pdf/chq.pdf
Adjustment to		Stein, R., & Riessman, C. (1980). The development of t Family Scale: Preliminary findings. *Medical Care, 1*

chronic illness	Impact on Family Scale	Contained in Bennett Johnson, S. (1989). Chronic il E. Mash & L. Terdal, (Eds.), *Behavioural assessmen disorders* (pp. 491–527). New York: Guilford.
	Child Attitude Toward Illness Scale	Austin, J., & Huberty, T. (1993). Development of the C Toward Illness Scale. *Journal of Paediatric Psychol*
Pain	The Varni-Thompson Paediatric Pain Questionnaire	Varni, J., Thompson, K., & Hanson, V. (1987). The Varn Paediatric Pain Questionnaire: 1. Chronic-musculo-juvenile rheumatoid arthritis. *Pain, 28*, 27–38. Available at https://www.seattlechildrens.org/pdf/pediatric_pai
	Children's Comprehensive Pain Questionnaire	McGrath, P. (1987). The multidimensional assessment of recurrent pain syndromes in children. *Behaviour Therapy, 25*, 251–262. Hunfeld, J., Perquin, C., Duivenvoorden, H., Hazebroe Passchier, J., Suijlekom-Smit, L. et al. (2001). Chron

	impact on quality of life in adolescents and their fa *Paediatric Psychology, 26*, 145–153.
Pain Diary	Hunfeld, J.A.M., Perquin, C., Hazebroek-Kampschreur, A., Passchier, J., Suijlekom- Wouden, J. C. (2002). Physically unexplained chron impact on children and their families: The mother’ *Psychology and Psychotherapy, 75*, 251–260.
The Oucher	Beyer, J. (1984). *The Oucher: A user’s manual and tec* Evanston, IL: Hospital Play Equipment.
Faces Pain Scale – Revised (FPS-R)	Hicks, C., Baeyer, C., Spafford, P., Korlaar, I., & Good The Faces Pain Scale – Revised: Toward a commo paediatric pain measurement. *Pain, 93*, 173–183.
Pain Ladder and the Poker Chip Tool	Hester, N., Foster, R., & Kristensen, K. (1990). Measure children: Generalizability and validity of the Pain L Poker Chip Tool. In D. Tyler & E. Krane (Eds.), *Pae* *Advances in pain research and therapy* (Vol. 15, p York: Raven.
Observational Scale of Behavioural Distress	Elliott, C., Jay, S., & Woody, P. (1987). An observation measuring children’s distress during medical proc *Paediatric Psychology, 12*, 543–551.
Child–Adult Medical	Blount, R., Cohen, L., Frank, N., Bachanas, P., Smith, al. (1997). The Child-Adult Medical Procedure Inte

Procedure Interaction Scale	Revised: An assessment of validity. *Journal of Paed* *22*, 73–88.
Procedure Behaviour Checklist (PBCL)	Le Baron, S., & Zeltzer, L. (1984). Assessment of acute in children and adolescents by self-reports, observe behaviour checklist. *Journal of Consulting and Cli* *52*, 729–738.
COMFORT Scale	Ambuel, B., Hamlett, K. W., Marx, C. M., & Blumer, J. Assessing distress in paediatric intensive care envir COMFORT Scale. *Journal of Paediatric Psycholog*
Children's Hospital Eastern Ontario Pain Scale (CHEOPS)	McGrath, P., Johnson, G., Goodman, J., Schillinger, J., I Chapman, J. (1985). CHEOPS: A behavioural scale operative pain in children. In H. Fields, R. Dubner (Eds.), *Advances in pain research and therapy* (Vol New York: Raven.
Premature Infant	Stevens, B., Johnston, C., Petryshen, P., & Taddio, A. (

	Pain Profile (PIPP)	Infant Pain Profile: Development and initial validat *Journal of Pain, 12*, 13–22.
Headaches	Childhood Headaches Questionnaire	Labbé, E. Williamson, D., & Southard, D. (1985). Relial of children's reports of migraine headache sympto *Psychopathology and Behavioural Assessment, 7*, 3
	Headache Symptom Questionnaire	Mindell, J., & Andrasik, F. (1987). Headache classificat analysis with a paediatric population. *Headache, 27*
	Headache Diary	Richardson, G., McGrath, P., Cunningham, S., & Hum Validity of the Headache Diary for children. *Heada*
Somatization	Children's Somatization Inventory (CSI-24)	Walker, L. S., Beck, J. E., Garber, J., & Lambert, W. (20 Somatization Inventory: Psychometric properties o (CSI-24). *Journal of Paediatric Psychology, 34*, 430-
	Somatic Symptom Checklist	Eminson, M., Benjamin, S., Shortall, A., & Woods, T. (symptoms and illness attitudes in adolescents: An e Study. *Journal of Child Psychology and Psychiatry*

	Illness Attitudes Scale	Kellner, R. (1987). *Abridged manual of the Illness Atti* Albuquerque, NM: Department of Psychiatry. Cont M., Benjamin, S., Shortall, A., & Woods, T. (1996). F and illness attitudes in adolescents: An epidemiolog *of Child Psychology and Psychiatry, 37*, 519–528.
Hypnotizability	Stanford Hypnotic Scale for Children	Morgan, A., & Hilgard, J. (1979). Stanford Hypnotic Sc *American Journal of Clinical Hypnosis, 21*, 155–16
Asthma	Childhood Asthma Questionnaires	Christie, M., French, D., Sowden, A., & West, A. (1993 child-centred disease specific questionnaires for liv *Psychosomatic Medicine, 55*, 541–548. French, D., Christie, M., & Sowden, A. (1994). The rep childhood asthma questionnaires. *Quality of Life R International Quarterly Journal of Quality of Life Treatment, Care and Rehabilitation, 3*, 215–224.
	Life Activities Questionnaire for Childhood	Creer, T., Wigal, J., Kotses, H., Hatala, J. et al. (1993). A Questionnaire for Childhood Asthma. *Journal of A*

	Asthma	
	Self-Efficacy in Asthma	Schlosser, M., & Havermans, G. (1992). A self-efficacy and adolescents with asthma: Construction and val *Asthma, 29*, 99–108.
	Asthma Self-Management Interview	Taylor, G., Rea, H., McNaughton, S., Smith, L. et al. (1 measuring the asthma self-management competen *Journal of Psychosomatic Research, 35*, 483–491.
	Family Asthma Management System Scale (FAMSS)	McQuaid, E. L., Walders, N., Kopel, S. J., Fritz, G. K., & (2005). Paediatric asthma management in the famil Family Asthma Management System Scale. *Journa Psychology, 30*, 492–502.
Diabetes	Diabetes Knowledge Scale	Beeney, L., Dunn, S., & Welch, G. (1994). Measuremen knowledge. The development of the DKN scales. I *Handbook of psychology and diabetes* (pp. 159–19

	Switzerland: Harwood.
Summary of Diabetes Self-Care Activities Questionnaire	Tootbert, D., & Glasgow, R. (1994). Assessing diabetes The Summary of Diabetes Self-Care Activities Que Bradley (Ed.), *Handbook of psychology and diabet* Chur, Switzerland: Harwood.
Barriers to Diabetes Self-Care Scale	Glasgow, R. (1994). Social environmental factors in dia diabetes self-care. In C. Bradley (Ed.), *Handbook o diabetes* (pp. 335–350). Chur, Switzerland: Harwoo
Adjustment to Diabetes Scale (ATT39)	Welch, G. (1994). The ATT39: A measure of psycholog diabetes. In C. Bradley (Ed.), *Handbook of psychol* (pp. 291–334). Chur, Switzerland: Harwood.
Perceived Control of Diabetes	Bradley, C. (1994). Measures of perceived control of d Bradley (Ed.), *Handbook of psychology and diabet*

Scale	Chur, Switzerland: Harwood.
Diabetes Quality of Life Measure	Jacobson, A. (1994). The Diabetes Quality of Life Mea (Ed.), *Handbook of psychology and diabetes* (pp. 6 Switzerland: Harwood.
Diabetes Family Behaviour Checklist	Schafer, L., McCaul, K., & Glasgow, R. (1986). Support supportive family behaviours: Relationships to adh metabolic control in persons with Type 1 diabetes. 185.
Diabetes Family Conflict Scale (DFCS)	Hood, K., Butler, D., Anderson, B., & Laffel, L. (2007). revised Diabetes Family Conflict Scale. *Diabetes C*
Diabetes Family Responsibility Questionnaire (DFRQ)	Anderson, B., Auslander, W., Jung, K. C., Miller, J., & S Assessing family sharing of diabetes responsibilitie *Paediatric Psychology, 15*, 477–492.

	Diabetes Social Support Questionnaire – Family Version (DSSQ)	La Greca, A., & Bearman, K. (2002). The Diabetes Soc Questionnaire Family Version: Evaluating adolesce specific support from family members. *Journal of* *Psychology, 27,* 665–676.
Cancer	Fatigue Scale	Hockenberry, M., Hinds, P., Barrera, P., Bryant, R., Ad Hooke, C.,…Manteuffel, B. (2003). Three instrumen in children with cancer: The child, parent and staff *Journal of Pain and Symptom Management, 25,* 31

Family-based treatment approach

A family-based approach to illness management aims to help family members communicate clearly and openly about the illness, symptoms and related issues; to make clearer family boundaries and increase the autonomy of child in symptom management; to decrease the emotional intensity of parent–child interactions related to symptoms; to encourage joint parental problem solving with respect to symptom management; to optimize the parent's support of the ill child and siblings; and to optimize parents use of health care resources and support groups.

To achieve these aims some treatment sessions may be conducted with children to help them develop symptom management skills such as relaxation exercises, breathing exercises, visualization, distraction and self-instruction. However, other treatment sessions should involve the parents and siblings who may become marginalized as family life becomes organized around the ill child.

Where fathers are unavailable during office hours, it is worthwhile making special arrangements to schedule at least a couple of family sessions which are convenient for the father, since the participation of fathers in family therapy is associated with a positive outcome (Carr, 2012). Where parents are separated or divorced, it is particularly important to arrange some sessions with the non-custodial parent, since it is vital that both parents adopt the same approach in understanding and managing the child's somatic difficulties.

Psychoeducation

In psychoeducational sessions parents, ill children and their siblings are given both general information about the illness and specific information about the symptomatic child's particular illness. Information on clinical features, predisposing, precipitating, maintaining and protective factors should be given along with their impact on cognition, behaviour, family adjustment, school adjustment and health over the lifespan. Details of the medical treatment programme covering medication, exercise, physiotherapy, diet, tests and medical crisis management and so forth should be given both orally and in written form in a way that is comprehensible to the parents and the child. Psychoeducation may be offered in individual sessions, family sessions or group sessions. For many illnesses such as diabetes and asthma, interactive instructional software programmes are now available that permit children to learn about their illness at their own pace. These have the advantage of being highly motivating for children and exciting to use. However, such programmes should ideally be supplemented with individual consultations to answer the child's specific questions. Family psychoeducation sessions allow the family to develop a shared understanding of the illness. Group psychoeducation offers a forum where children and parents can meet others in the same position and this has the benefit of providing additional support for family members.

Monitoring of symptoms

For all somatic complaints, it is useful to train children and/or parents to regularly record information about the symptom, the circumstances surrounding its occurrence and treatment adherence. Intensity ratings, frequency counts, durations and other features of symptoms may be recorded regularly. Intrapsychic and interpersonal events that happened before, during and after the symptoms may also be noted. The amount of medication used, particular foods that were eaten, particular exercises that were completed, and results of tests such as blood sugar or peak flow meter readings may all be monitored in standard ways on a regular basis. When inviting parents and children to use a monitoring system, the chances of them co-operating is better if a simple system is used to start out with. Later, more complex versions of it may be developed. For example, children with headaches may record the intensity of their pain three times a day for a week to start out with. Later, when they have become used to the practice of self-monitoring, they may be invited to also record information about medication usage. A page from a pain diary that may be used with headaches, abdominal pains and other types of pain is presented in Figure 14.3. Simplified versions of this may be used earlier in the monitoring process. A self-monitoring chart for physical illness is presented Figure 14.4. It may be used to monitor fluctuations in symptomatology and adherence to health care regimes involving medication, diet and exercise programmes.

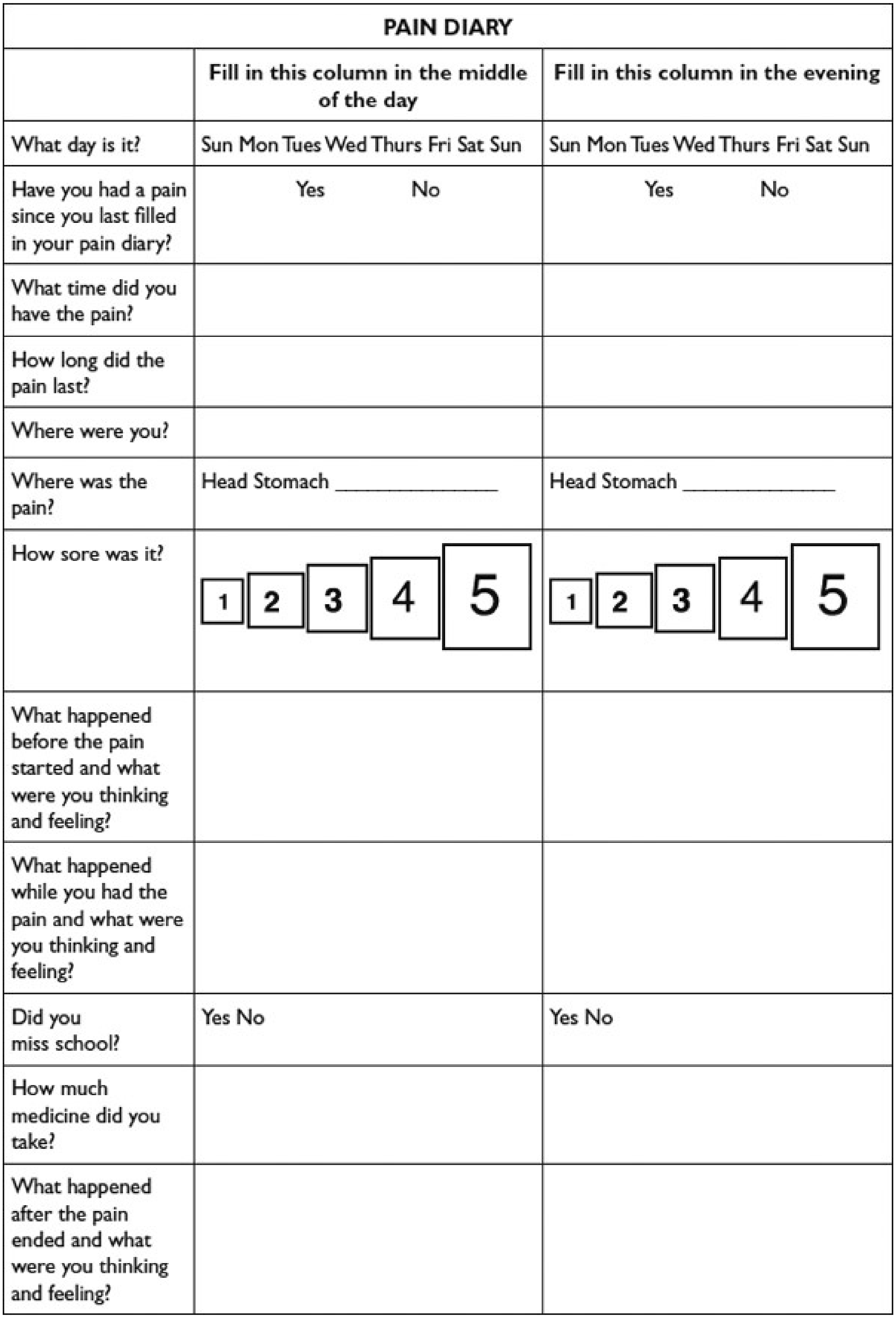
Relaxation skills training

Stressful events which increase physiological arousal may precipitate, maintain or exacerbate many symptoms including pain, asthma attacks, epileptic seizures and changes in diabetic blood sugar levels. For this reason, training in tension reduction skills is a core element of most treatment programmes described in this chapter. The progressive muscle relaxation exercise, breathing exercises and visualization skills described in Chapter 12 may be taught to children who present with somatic complaints.

Cognitive coping strategies

The degree to which children focus their attention on their symptoms, the way in which they evaluate them, and the behavioural and interpersonal patterns that they develop related to their symptoms all influence children's overall psychological adjustment to somatic complaints. In certain situations, it may be appropriate for children to learn to distract themselves from their symptoms by thinking about something else or becoming engrossed in an activity that prevents them from thinking about their condition. Distraction may be useful in coping with various types of pain, particularly recurrent abdominal pain, which may arise from focusing on minor fluctuations in internal physiological states and catastrophizing about these. Children may be helped to develop their own distraction routines, such as listening to their favourite music or story on a personal stereo, playing with a favourite toy or computer game or reciting favourite poems.

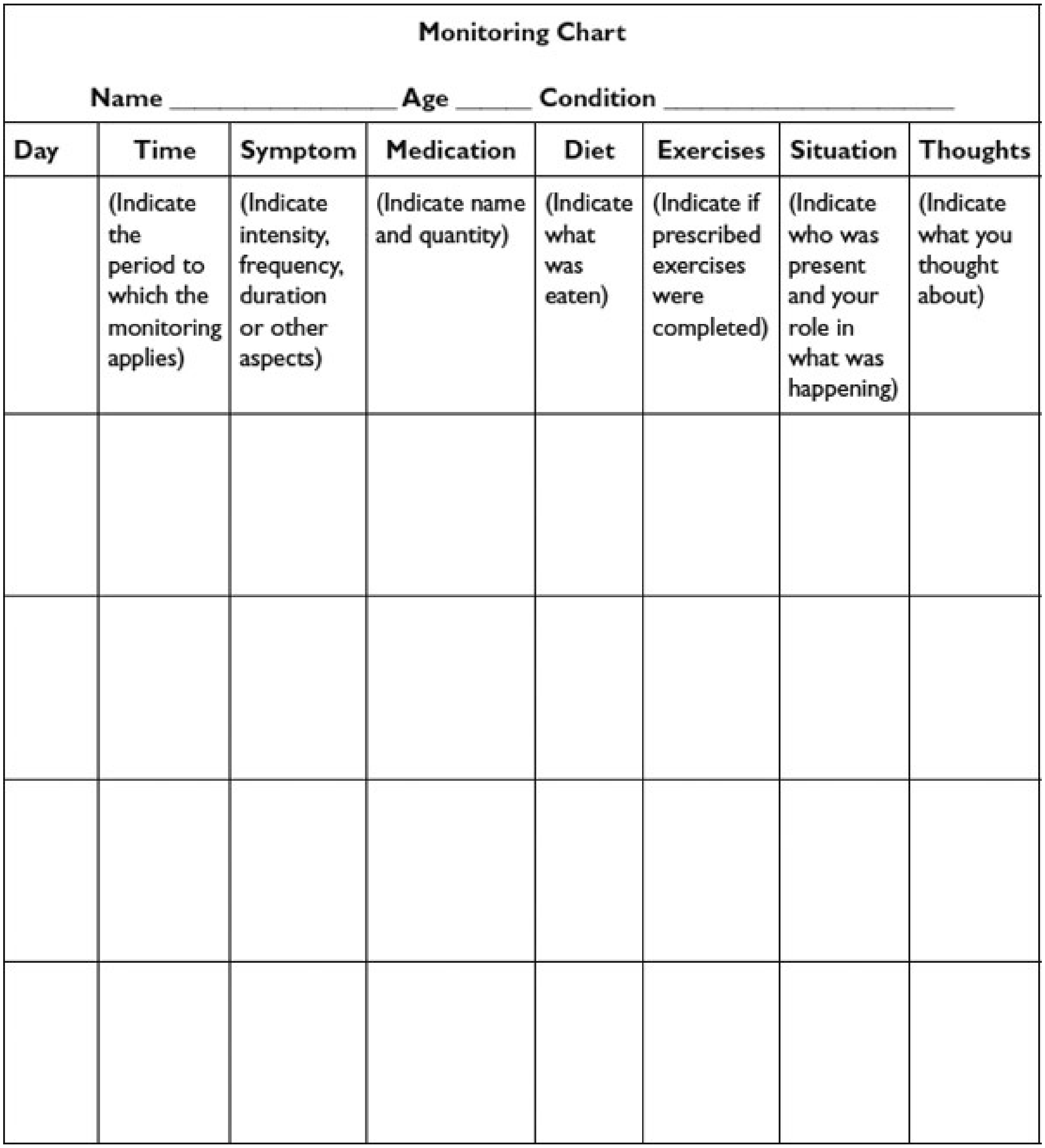
Where children have developed a habit of catastrophizing about symptoms or misinterpreting benign bodily sensations, they may be trained to challenge these negative thoughts in the way described in Chapter 12. In CTR self-instructional training children are invited to **C**hallenge these catastrophic thoughts by asking themselves what the other possible interpretations of the situation are; to **T**est out what evidence there is for the catastrophic outcome and the other less threatening outcomes; and to **R**eward themselves for testing out the less catastrophic interpretation of the situation.



PAIN DIARY

	Fill in this column in the middle of the day	Fill in this column in the evening
What day is it?	Sun Mon Tues Wed Thurs Fri Sat Sun	Sun Mon Tues Wed Thurs Fri Sat Sun
Have you had a pain since you last filled in your pain diary?	Yes No	Yes No
What time did you have the pain?		
How long did the pain last?		
Where were you?		
Where was the pain?	Head Stomach _______________	Head Stomach ______________
How sore was it?	1 2 3 4 5	1 2 3 4 5
What happened before the pain started and what were you thinking and feeling?		
What happened while you had the pain and what were you thinking and feeling?		
Did you miss school?	Yes No	Yes No
How much medicine did you take?		
What happened after the pain ended and what were you thinking and feeling?		

Figure 14.3 Pain diary



Monitoring Chart

Name ________________ **Age** _____ **Condition** ____________________

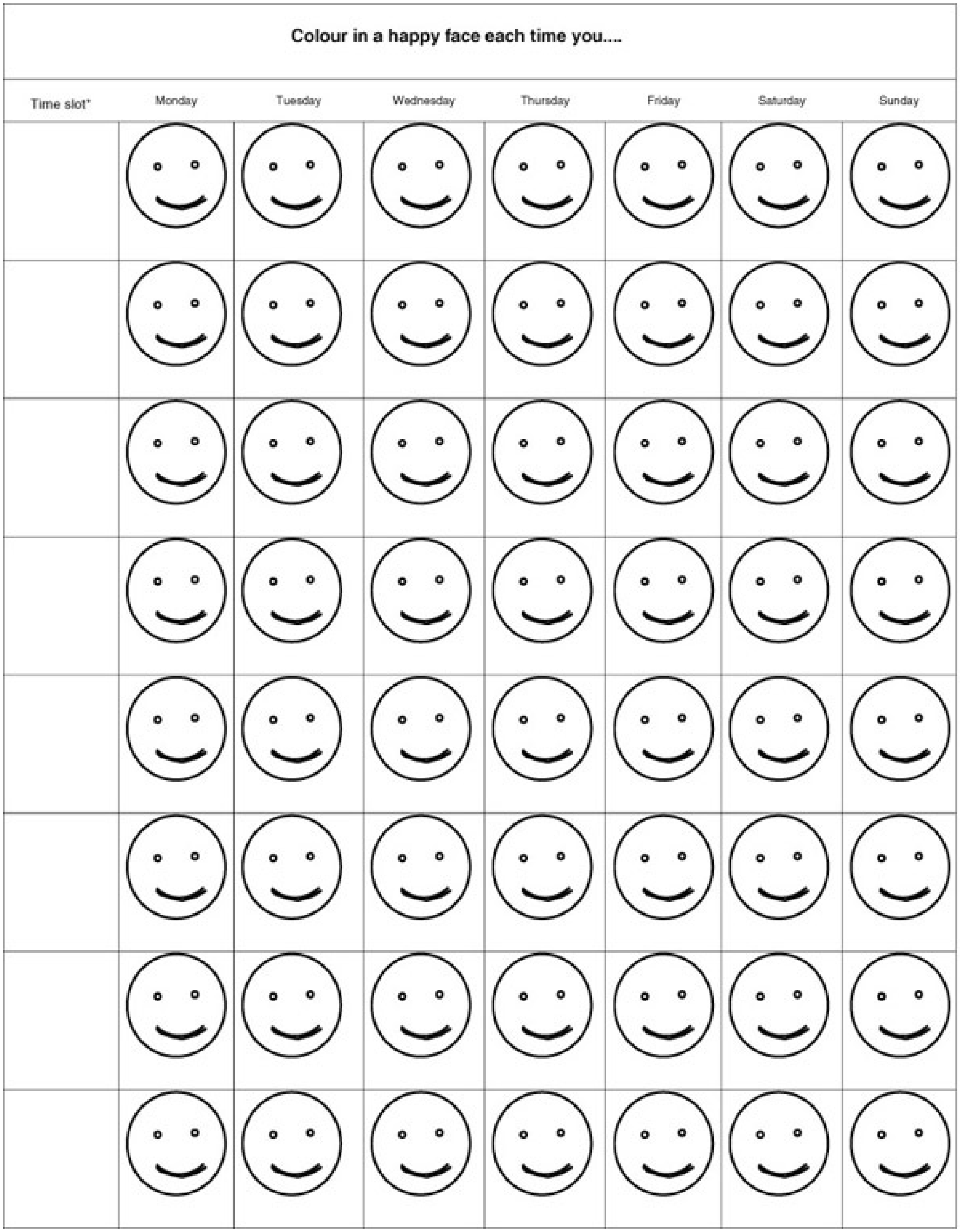
Day	**Time**	**Symptom**	**Medication**	**Diet**	**Exercises**	**Situation**	**Thoughts**
	(Indicate the period to which the monitoring applies)	(Indicate intensity, frequency, duration or other aspects)	(Indicate name and quantity)	(Indicate what was eaten)	(Indicate if prescribed exercises were completed)	(Indicate who was present and your role in what was happening)	(Indicate what you thought about)

Figure 14.4 Self-monitoring system for physical illnesses

Where children have developed debilitating behaviour patterns and interpersonal routines in response to their symptoms, they may be helped to break out of the sick role by planning alternative ways of acting and managing their interpersonal relationships. That is, they may be invited to plan ways to replace illness-behaviour or pain-behaviour with well-behaviour.

Contingency management

Contingency management programmes may be conducted on a hospital ward or in the child's home. For home-based programmes, parents require guidance on using reward systems, such as that described in Table 4.5 in Chapter 4, to reinforce the child's well-behaviour. Ideally this reward system should be set up with the full participation of the child. A reward chart for use with children who present with somatic complaints is presented in Figure 14.5. With frequently occurring symptoms or illness-behaviours, well-behaviour should be rewarded more frequently, so briefer time slots need to be written into the left-hand column of the chart. In addition to the reward system, parents may be advised to ignore non-verbal illness-behaviours and use children's complaints about symptoms as opportunities to prompt them to use symptom-management skills.



Colour in a happy face each time you....

Time slot*	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday
	☺	☺	☺	☺	☺	☺	☺
	☺	☺	☺	☺	☺	☺	☺
	☺	☺	☺	☺	☺	☺	☺
	☺	☺	☺	☺	☺	☺	☺
	☺	☺	☺	☺	☺	☺	☺
	☺	☺	☺	☺	☺	☺	☺
	☺	☺	☺	☺	☺	☺	☺
	☺	☺	☺	☺	☺	☺	☺

Figure 14.5 Child's reward chart for use with somatic complaints

* Write the time period in this column. For symptoms or sick-role behaviour that occurs 3–4 times a week or less, a day is a useful time period to use for winning a smiling face for well-behaviour. For symptoms or sick-role behaviour that occurs 9–10 times a week, a half day is a good time period to use. For very frequent symptoms or sick-role behaviour, an hour may be the appropriate time period.

Relapse management training

Recurrence of illness-related adjustment problems is inevitable with chronic conditions such as asthma, diabetes, epilepsy and migraine. Planning how such recurrences will be managed should be covered in the final sessions of a time-limited episode of psychological intervention. The child and parents may be helped to predict the types of stressful situation in which the child may be at risk of relapsing and envisage how they will used the symptom management skills, contingency management procedures and clear communication to manage such relapses.

Support groups

For most chronic illnesses like epilepsy or asthma parents and children benefit from joining a support network of families containing children with similar problems. Such networks provide both social support and relevant information of the child's condition and available resources for its management. In most countries, national organizations for a wide variety of chronic illnesses have been established. Many of these have set up self-help support groups that meet regularly. Some arrange major annual summer camps for children and other highly supportive activities. It is useful to help families with chronically ill children make contact with these organizations and join appropriate support groups.

Recurrent abdominal pain

In recurrent abdominal pain (RAP), repeated stomach aches are the central complaint (Banez & Cunningham, 2009; Janicke & Finney, 1999; Sprenger et al., 2011; Weydert et al., 2003). A typical case of RAP is presented in Box 14.1. RAP may occur as part of a wider constellation of somatic complaints including nausea, vomiting, headache, and limb or joint pains. In Table 14.1, Achenbach's empirically derived somatic syndromes for pre-school and school-aged children and adolescents illustrates this type of presentation. RAP occurs in about 10% of school-aged children and accounts for 2–4% of paediatric consultations. It is most common in the 5–12 year age group and is equally common among boys and girls. Episodes of abdominal pain may vary in length from a few minutes to a couple of hours and the frequency of such episodes may vary from more than one daily to a couple of times a month. Episodes of pain may occur at any time of the day but rarely at night. Sometimes episodes of pain occur in anticipation of separation from parents or going to school. In these instances, it is probable that separation anxiety is the central difficulty. Separation anxiety is discussed in Chapter 12. A full paediatric examination and laboratory investigations must be normal for a diagnosis of RAP to be made. RAP often begins with an episode of gastrointestinal illness with abdominal discomfort as one of the symptoms. There are three main courses for the condition. About a third of children with RAP have a good prognosis. About a third develop chronic tension or migraine headaches and about a third continue to have recurrent abdominal pain.

The causes of RAP are still unclear, and available evidence has not identified a single constellation of aetiological factors. However, clinical observations and the results of small uncontrolled studies have led to many interesting hypotheses (Banez & Cunningham, 2009; Garralda, 1999). Abnormal physiological processes which have been suggested to make children vulnerable to the condition include decreased gastrointestinal motility, chronic stool retention, lactose intolerance and irritable colon. Stressful life events have been posited as a possible aetiological factor for RAP. Anxiety, depression, difficult temperament, fastidiousness, high achievement orientation, dependency, and inadequate coping strategies are the principal personal characteristics that have been observed in some instances to characterize children with RAP. Hypotheses implicating parental anxiety, depression, preoccupation with health concerns, a family history of illness, and patterns of family interaction that reinforce illness behaviour have also been mentioned in the literature.

Assessment

A full medical paediatric examination should be conducted in all cases of recurrent abdominal pain. Medical conditions which may cause the abdominal pain need to be excluded. These include appendicitis, mesenteric adenitis, urinary tract infection and Crohn's disease.

The protocol set out in Chapter 4 and the framework given in Figure 14.2 may be used to assess youngsters where RAP is the central complaint. Pain diaries (such as that presented in Figure 14.3) may be used to monitor fluctuations in pain over the course of assessment and treatment. With such diaries the child or parent is invited to complete the diary between one and four times per day. On each occasion the severity, duration and location of the pain is recorded along with events that preceded and followed the episode of pain including medication usage. In such diaries pain intensity may be evaluated using visual analogue scales (such as the 5-point scale given in Figure 14.3) for children 7 and older. The faces pain scale is appropriate for children in the 5–7 age range (Hicks et al., 2001). Concrete pain rating methods such poker chips may be used for younger children (Hester et al., 1990).

Specific issues deserving assessment in the case of RAP are the location, frequency, duration, and intensity of the pain and associated features such as nausea, vomiting and other symptoms. A family history of illness, medical and surgical history, previous treatment for abdominal pain and its effectiveness all require evaluation. Children should be asked about the coping strategies they spontaneously use and the effectiveness of these. These may include various forms of distraction or the spontaneous use of tension reduction routines such as deep breathing or relaxation. The consequences of the abdominal pains and the pattern of social interaction that typically occurs with parents, teachers, friends and significant others requires careful scrutiny to assess the degree to which members of the child's family and network are inadvertently reinforcing the pain behaviour and related pain experiences.

Treatment

Results of the assessment should be integrated into a concise formulation where predisposing, precipitating, maintaining and protective factors are specified. A case management plan based on the formulation may then be developed. Such an intervention plan should be family based and may include psychoeducation, pain management skills training and contingency management. Well-designed controlled treatment outcome studies using such a package have shown that this type of behavioural family therapy is more effective in the management of RAP than routine paediatric care (Murphy & Carr, 2000; Sprenger et al., 2011). Such family-based behavioural programmes may usefully be supplemented with increased dietary fibre (Finney et al., 1989). Such dietary interventions should be arranged in consultation with a dietician.

Psychoeducation. Psychoeducation should begin by affirming the reality or validity of the child's experience of pain and dispelling the idea that because no current identifiable physiological basis for the child's pain can be found, the pain is therefore not real, feigned, imaginary or a sign of serious psychological disturbance. All pain has both a physical basis and a psychological basis. Physical factors that cause pain include muscle tension, tissue damage and infection. Psychological factors include the attention we give to the pain and our reactions to the sensations we perceive. Here is an example that may be used to explain the role of physical and psychological factors in pain perception. A sailor who is injured while sailboarding in high winds may feel no pain because he pays little attention to the sensation caused by the tissue damage. The same person may experience excruciating pain for weeks following a stomach upset because he expects to feel such pain and directs attention to the stomach. Thus, children with RAP usually have begun with a pain determined largely by gastrointestinal infection, tension or tissue damage. This pain then persists because they expect it to, and the expectation may cause tension which leads to further pain and patterns of behaviour that are used to deal with the pain, like focusing on the pain, talking about it and not engaging in distracting activities like playing or going to school. RAP and the patterns of behaviour associated with it, both the child's and the parents', are like a bad habit. RAP can therefore be managed like a habit. The child may be trained in skills to reduce tension and be distracted from the pain. The parents may be coached in how to reward the child for using these pain management skills.

Pain management skills. Pain management skills include self-monitoring, progressive muscle relaxation, breathing exercises, visualization, positive self-instructions, and distraction by engaging in competing activities. With self-monitoring, the child is taught how to use a pain diary of the type set out in Figure 14.3. This allows the youngster to see the links between the occurrence of the stomach pains, precipitating specific situations and possible reinforcing events that follow from the occurrence of the pains. They also learn what internal dialogues are associated with the occurrence of the pains.

The muscle relaxation, breathing and visualization exercises described in Chapter 12 for anxiety control may be used with children who have RAP. Youngsters may be trained to use the CTR approach to cognitive restructuring also described in Chapter 12 to help them cope with pain-inducing cognitions. They may also learn to praise themselves when they cope with pain successfully, by relaxing, challenging pain-inducing thoughts, or distracting themselves. Finally, youngsters may be helped to plan lists of competing activities in which they may engage when they experience pain.

Contingency management. Parents may be trained to reinforce all well-behaviour with praise and a structured reward chart points system such as that presented in Figure 14.5. They may also trained to ignore non-verbal pain behaviour and respond to verbal complaints of RAP pain by prompting the child to use pain management skills. With non-RAP pain, parents should be encouraged to respond with appropriate care and attention.

Relapse management. In the final sessions relapse management may be discussed and families may be encouraged to anticipate stressful situations where relapsed may occur and plan strategies for managing recurrences of abdominal pains.

Sanders et al. (1994) found that two key sets of skills that parents and children learned from behavioural family therapy using a programme like this predicted a positive response to treatment. These were the children's use of pain control skills and parents' use of contingency management skills.

When RAP occurs as part of a school-refusal syndrome, and extreme anxiety accompanies early morning episodes of abdominal pain, the approach to assessment and treatment set out in Chapter 12 for school refusal is more appropriate than the protocol offered here.

Headaches

Reviews of epidemiological data concur that headaches are common among children and adolescents (Abu-Arafeh et al., 2010; Sieberg et al., 2012). A distinction may be made between tension or migraine headaches. The estimated prevalence of headache in children and adolescents is 58% and of migraine is about 8%. Girls are more likely to have headaches and migraine than boys. Severe recurrent headaches may interfere with psychosocial and academic adjustment, and so it is not surprising that headaches account for 1–2% of paediatric consultations. Approximately 30–40% of children show spontaneous remission from headaches within 1 year. A case example of a child with severe migraine is presented in Box 14.2.

Tension headaches are very frequent, bilateral, accompanied by dizziness and are experienced as a tight band, a heavy weight or a fullness in the head. Tension headaches are usually associated with stressful anxiety-provoking situations at home or school. This leads to muscular tension in the muscles of the neck, shoulders and head which in turn leads to pain.

Migraine, is periodic, severe and unilateral accompanied by a visual aura, nausea, vomiting and photophobia. The exact incidence in unknown. A family history of migraine among children with migraine is very common. Migraine attacks usually follow a clear precipitant such as excitement, stress, eating certain foods such as chocolate or cheese, or exposure to stroboscopic effects such as TV, cinema or strobe lights.

Three phases may be distinguished in an episode of migraine (Williamson et al., 1993). In the first phase, vasoconstriction of the innervated cerebral vascular system and extracranial arteries occurs and leads to decreased oxygenation within these systems and increased serotonin levels in certain areas of the brain. This increase in serotonin is probably what underpins the prodromal symptoms of migraine. The vasoconstriction which occurs in the first phase of a migraine attack may be caused by any stimuli that lead to intense emotional experiences; by certain foods such as chocolate or cheese; or by stroboscopic effects. In the second phase rebound extracranial vasodilatation occurs in the non-innervated cerebral vascular system and the extracranial arteries. This is associated with the release of histamine and polypeptides that produce oedema and a reduction in pain threshold. These changes lead to distended arteries and inflammation of the nerves of the blood vessel so that with each pulse of blood thorough the artery there is a sharp throbbing pain. In the third phase, vascular and biochemical changes return to normal, but there may be temporary swelling and tenderness for some hours or days after the headache has cased.

The perceived intensity of headaches is moderated by three important psychological factors. First, exposure to people who model pain behaviour influences the level of perceived pain. Where children have grown up in families in which one or more members suffered from headaches or other painful conditions and displayed pronounced pain-related behaviours, youngsters will experience more intense migraine headaches. Second, the level of perceived pain is influenced by the coping strategies the youngster uses. Youngsters who use active coping strategies to reduce pain experience less intense migraines than youngsters that passively endure the pain. Third, the intensity of experienced pain is influenced by the amount of social reinforcement provided within the family, school and peer group for pain-related behaviour and complaints. Youngsters whose parents, friends and teachers express intense concern about migraine headaches experience more intense pain than those who receive less attention.

Distinguishing between migraine and tension headaches is usually difficult and in some instances both types of headache co-occur or children with tension headaches later develop migraine as well. The onset of migraine rarely occurs before 9 years, while tension headaches can occur in very young children. Some theorists reject the categorical classification of headaches and argue that tension and migraine headaches reflect two ends of a continuum (Williamson et al., 1993). The model of headaches set out in Figure 14.6 accommodates important aetiological factors that have been identified for both migraine and tension headaches and combined migraine and tension headaches. It is a useful guide for assessment, formulation and psychoeducation.

Assessment

A full medical paediatric evaluation is essential for children who present with headaches to rule out medical conditions which may underpin the headaches. These include infections, head trauma, intracranial pressure, toxic conditions, meningitis, encephalitis and a variety of neurological conditions.

Assessment following the protocol contained in Chapter 4 and the framework given in Figure 14.2 should be conducted and supplemented with information from structured self-report questionnaires such as the Childhood Headaches Questionnaire (Labbé et al., 1985) or the Revised Headache Symptom Questionnaire (Mindell & Andrasik, 1987) which are described in Table 14.4. Headache diaries, such as that presented in Figure 14.3, may be used to monitor fluctuations in pain over the course of assessment and treatment. With such diaries the child or parent is invited to make an entry between one and four times per day. On each occasion the severity, duration and location of the pain is recorded along with events that preceded and followed the episode of pain including medication usage.

Specific issues deserving assessment in the case of headaches are the location, precipitants, frequency, duration and intensity of the headaches and associated features such as prodromal signs, nausea, vomiting and other areas of pain, and potential reinforcers of pain experience and behaviour. A family history of headaches, medical and surgical history, previous treatments for headaches and their effectiveness all require evaluation. Particular attention should be paid to precipitants such as weather changes, allergic reactions, menstruation, changes in sleeping habits, changes in exercise pattern, dietary factors such as cheese and chocolate in the case of migraine, exposure to stroboscopic effects, constipation, a build-up of minor daily stresses, major stressful life events, and negative mood states. Children should be asked about the coping strategies they spontaneously use and the effectiveness of these. These may include various forms of distraction such as solitary play or playing with friends and siblings. Physical exercise, eating and sleeping may also be used by children to regulate pain. To cope with pain some children spontaneously use tension reduction routines such as deep breathing, relaxation to music and auto-hypnosis. These require routine evaluation. The consequences of the headaches and the pattern of social interaction that typically occurs with parents, teachers, friends and significant others requires careful scrutiny to assess the degree to which members of the child's family and network are inadvertently reinforcing the pain behaviour and related pain experiences.

Information from the assessment should be integrated into a concise formulation in which predisposing, precipitating, maintaining and protective factors are specified. A case management plan based on this formulation may then be developed.

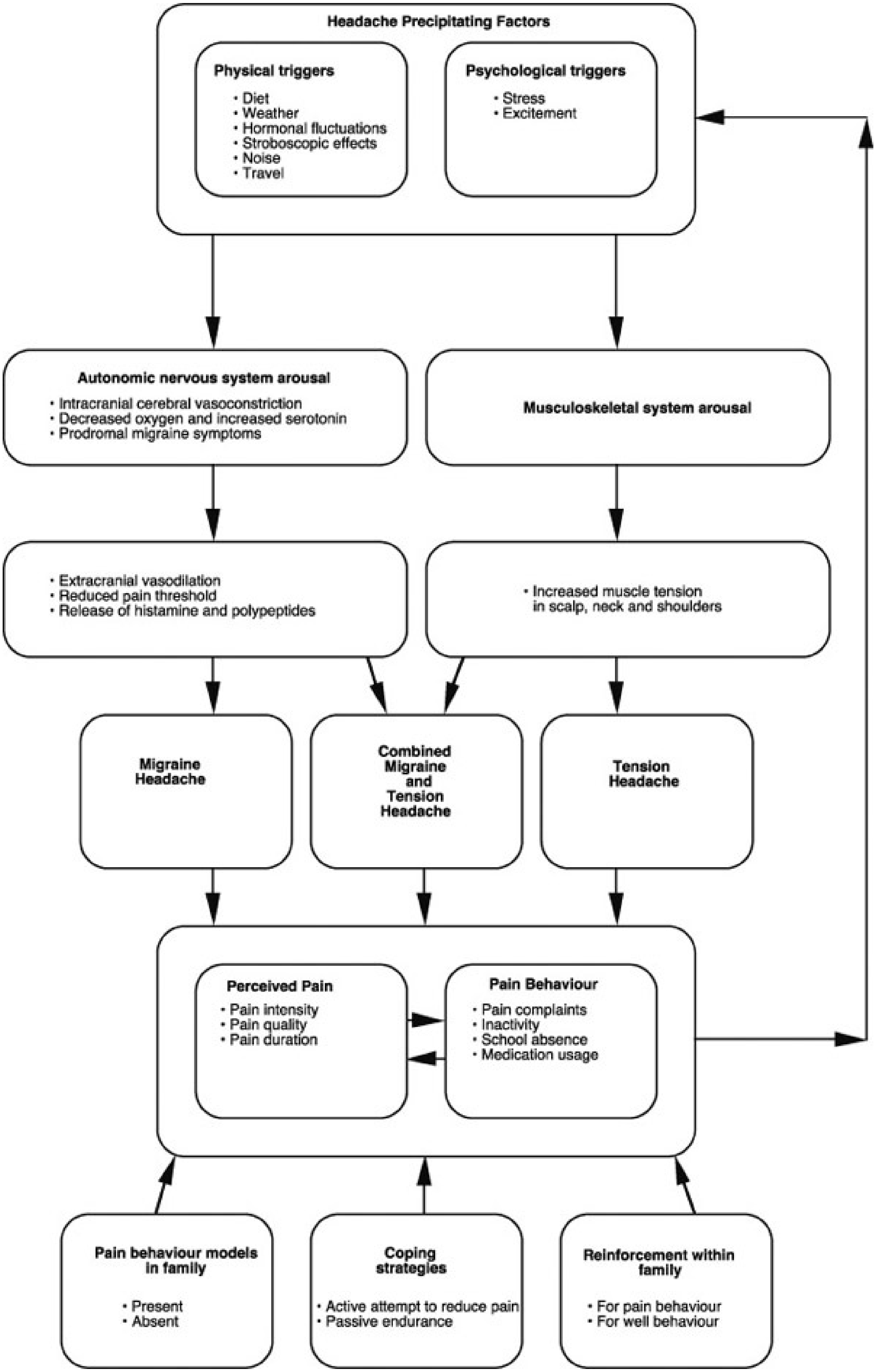


Figure 14.6 Aetiological factors for headaches

Treatment

Results of treatment outcome studies of headaches and other types of childhood pain suggests that effective treatment for tension headaches in children should be based on a multi-modal family based approach which includes psychoeducation; a reduction of environmental stresses within the family, school and peer group; family-based contingency management; and cognitive-behavioural pain management skills training (Andrasik & Schwartz, 2006; Hermann et al., 2011; Palermo et al., 2010; Sieberg et al., 2012).

Psychoeducation. For psychoeducation, a simplified version of the explanation of tension headaches or migraine headaches presented earlier and in Figure 14.6 may be offered to the child and parents. This input may be made when explaining the formulation of the child's problem.

Stress reduction. Stress reduction within the family, school and peer group involves targeting those stresses identified during the assessment and exploring ways that these stresses may be reduced in meetings with relevant members of the child's social network.

Contingency management. In setting up a home-based contingency management programme, parents require guidance on using praise and reward system such as that described in Table 4.5 in Chapter 4 to reinforce the child's well-behaviour and the child's independent use of pain management skills. Ideally this reward system should be set up with the full participation of the child. The older the child the more important this participation becomes. In addition to the reward system an agreement should be reached with the parents and child that non-verbal pain behaviours will be ignored, and children's complaints about experiencing pain should be used as opportunities to prompt them to use pain management skills. Parents (and teachers) may be advised to encourage children to engage in normal activities (such as attending school and participating in leisure activities) during episodes of pain, unless the pain is very severe. In such instance the child should be confined to bed, treated as very ill, and not permitted to watch TV, use video games or to receive special care and attention from family or friends. Parents may be advised to refrain from regularly asking children about whether they have headaches and how severe these are. Reliance on pain medication should be discouraged by only offering medication to the child as prescribed.

Pain management skills. For tension headaches children may be taught the progressive muscle relaxation, deep breathing skills and visualization techniques described in Chapter 12. Electromyography (EMG) biofeedback may also be used to reduce tension but it is no more effective than technologically unaided tension reduction methods. In addition to these tension reduction techniques, youngsters may be coached in the use of cognitive strategies such as distraction, engaging in competing activities and positive self-instructions.

For migraine a similar programme may be used but with some modifications. Particular attention should be paid to eliminating dietary and other triggers such as exposure to stroboscopic effects. Migraine specific medication such as ergotamine and thermal biofeedback may also be incorporated into the overall management plan.

Conversion symptoms

Conversion symptoms are motor or sensory symptoms which occur in the absence of a clearly identifiable underlying organic pathology or injury. They are also referred to as functional somatic symptoms and MUSs. (Campo, 2012; Eminson, 2007; Gledhill & Garralda, 2009; Husain et al., 2007). Conversion symptoms usually follow an injury, illness or accident in which a sensory or motor function was impaired. The loss of function continues despite the absence of an organic basis for the continued dysfunction. The presentation mimics the child's conception of a disorder. Children who develop conversion symptoms have often been sensitized to health problems through family or school-based experiences. The dysfunction may not correspond to the known anatomical pattern of innervation of the affected organs. For example, children may present with *glove* or *stocking* anaesthesia. Common example of conversion disorder in children include limb pain with gait abnormalities, numbness or paralysis (following limb injury or accident), chronic cough (following influenza), and pseudoseizures (with epilepsy). Both parents and children are usually strongly opposed to a psychological explanation for the physical symptoms and point to the genesis of the disorder in a well-founded organic illness or physical injury. Thus conversion symptoms are often are maintained by the way in which the child is treated by family members and other members of the child's social network and by the payoffs associated with the conversion symptoms for the child. Thus, the parents and other members of the child's social network may inadvertently reinforce the child's illness behaviour by offering the child subtle privileges for behaving in a way consistent with a physical illness. The child may unconsciously adopt the symptoms to avoid a feared, conflictual or challenging situation and so reduce negative affect. For example, symptoms may permit the expression of socially unacceptable aggression or dependency without having to reap the consequences of expressing such emotions. Conversion disorder has a favourable outcome but residual mood and anxiety disorders may persist after recovery from conversion symptoms. A history of severe physical or sexual abuse and hypnotic suggestibility are both predisposing risk factors for developing conversion symptoms (Roelofs, Hoogduin et al., 2002; Roelofs, Keijsers et al., 2002). Children with a high level of hypnotic susceptibility have a greater ability to dissociate. They or their parents can suggest that they have physical complaints and the children genuinely experience these physical symptoms. However, they lack insight that the symptoms arise from suggestion rather than a predominantly physical aetiology. Children exposed to abuse who later develop conversion symptoms probably used dissociation as an effective short-term method for coping with trauma-related negative affect, and in later life continue to unconsciously use dissociation and conversion to cope with challenging situations to reduce negative affect. However, many children with conversion symptoms have not experienced abuse. An example of a case of conversion hysteria is presented in Box 14.3.

Assessment

Close liaison between the clinical psychologist, the family doctor and all members of the paediatric medical team is essential in the management of cases of conversion disorder. A thorough paediatric medical evaluation should be conducted and a full child and family assessment following the guidelines set out in Chapter 4 and the framework given in Figure 14.2. Specific attention should be paid to the avoidance function of the symptom, the communicative function of the symptom, and patterns of social interaction that maintain the symptoms.

As part of the assessment process, the degree to which the child's symptoms may be altered through suggestion may be evaluated. The child is helped to enter a trance and then to perform actions that involve either losing the symptom (for example, moving a paralysed limb) or making the symptom occur (for example, having a pseudoseizure) while in the trance. This may be accomplished by helping the child achieved a relaxed state, using the relaxation and visualization routine described in Chapter 12, and then helping them enter a light trance using the hot air balloon method. Here the child is invited to imagine that he or she is in a hot air balloon, and as the balloon rises up off the ground and flies higher and higher into the sky, the child's trance deepens. Once children can clearly visualize that they are in the balloon and stationary over their own house or school, they should indicate this by moving the index finger. The child may then be invited to do an action within the hot air balloon that involves them losing their conversion symptom. For example, a child with an arm paralysis may be asked to wave to the people below the balloon on the ground. A child with leg paralysis may be invited to stand up and look over the edge of the balloon's basket so that he or she can see the house below. A child who has pseudoseizures may be invited to lie down on the floor of the hot air balloon basket and have a seizure and then to terminate the seizure at will (Levine, 1994). Particular care needs to be taken in this type of assessment to ensure the child's safety. At the end of the assessment, the child may be asked to land the balloon gently and open his or her eyes.

My own practice is to conduct this part of the assessment in a family interview so the parents and siblings can see the degree to which the symptoms are influenced by suggestion. However, it should be stressed to parents that this is only an assessment, not treatment. Any alteration in conversion symptoms that occurs during such assessment exercises is temporary.

A comprehensive formulation in which predisposing, precipitating, maintaining and protective factors are specified should be drawn up on the basis of salient features drawn from the assessment. A treatment plan based on the formulation may then be developed.

Treatment

Once the team has reached agreement on the diagnosis of conversion disorder and developed a formulation, arrangements should be made to communicate this diagnosis and formulation and the team's agreement about it to the child and family.

Presenting the formulation. This feedback process should be arranged so that a number of goals are met. First, the child's experience of the symptoms as real (rather than imaginary or feigned) should be affirmed. There should be no argument about the fact that children experience the paralysis or seizures or whatever the symptoms may be as outside their control. Second, the parents' management of the symptoms should be affirmed. Thus, they need to be told that they have done a good job of coping with a confusing set of symptoms that have baffled other health care professionals. Third, the organic basis for the physical illness that preceded the development of the conversion symptoms should be highlighted. Fourth, the fact that the infection, tissue damage, muscle tension or other organic factors that underpinned these symptoms are now absent should be made clear and the fact that this is very good news and bodes well for the child's recovery. Fifth, the current symptoms may be described as an after-effect of the organic illness that has persisted as a set of habits and that the child's body needs to learn how to break these habits by gradually resuming a normal lifestyle. Sixth, the parents' role in helping the child assume this lifestyle may be defined in light of the formulation, although explicit reference to it may not be necessary or appropriate in all cases.

Contingency management. The parents' role, it may be explained, is to supervise and reward the child for developing a symptom-free lifestyle. This involves them encouraging the child to achieve age-appropriate autonomy and to express concern about issues that trouble them, since bottling these up may cause stress and make the symptoms return. These issues, it may be explained, probably include the child's perception of parental conflict or the child's perceptions of parental expectations for achievement. The importance of discussing the discrepancy between children's perceptions of such issues and parental perceptions of such issues should be noted. A series of sessions of psychological consultation may be offered to the parents and the child in which discussions of these discrepancies are facilitated and which have the explicit aim of supporting the parents in achieving these goals of helping the child give up the sick role, communicating more clearly and drawing age-appropriate boundaries between parents and children.

Parent–child tasks. Within subsequent sessions, for motor conversion symptoms and paralysis parents may be invited to supervise the child carrying out daily exercises prescribed by the physiotherapist. Parents may be advised to use a reward system to motivate their child to complete their daily exercises. Successive approximations to asymptomatic behaviour may be rewarded. For pseudoseizures, parent may be trained to help their children to gain control over these. Daily practice sessions may be arranged within which the parent helps the child to plan to have seizures by closing their eyes and willing the seizure to occur after a count of 3 and then wakening from the seizure after a further count of 3. Once children learn to induce the seizures, they have a sense of control over them and so can learn to prevent them.

Pitfalls. The main pitfall with this type of approach is to offer the family the opinion of the team before there is complete agreement among members of all disciplines that the diagnosis is a conversion disorder. Lack of consensus on the part of team members may fuel the family's confusion about the condition and entrench the patterns of interaction that maintain the child's problems. The second pitfall is to offer to conduct further medical investigations when all team members are confident that the results will be negative. If the team have reached an opinion based on a thorough multi-disciplinary assessment, then they should not confuse the family by saying on the one hand that they are certain and on the other that they want to do more tests. The third pitfall is to enter into a symmetrical battle with the parents or the child about the reality of the symptoms or the validity of the diagnosis. The team should adopt a clear position that the symptoms are real (not imaginary or feigned) and the diagnosis is valid, but respect the family's right to reject this viewpoint and to seek a second opinion. Attempts to convince the family of the validity of the diagnosis or to coerce them into accepting it tend to confuse and upset parents and children. For a proportion of cases it will not be possible for parents and children to accept a diagnosis of conversion disorder and the child will become socialized into the role of a chronic invalid.

In a minority of cases where conversion symptoms occur as a reaction to child sexual abuse, local child protection procedures should be followed. The management of child sexual abuse is described in Chapter 21.

Chronic fatigue syndrome

Chronic fatigue syndrome is characterized by persistent physical and mental fatigue which is made worse by exercise for 6 months or more, for more than 50% of the time accompanied by a range of other symptoms including low activity levels, social withdrawal from peer group activities, school non-attendance, poor concentration and attention, low mood, headaches and muscle pains, sore throat and flu symptoms, insomnia or hypersomnia, and loss of appetite (Castell et al., 2011; Chalder, 2005; Garralda & Chalder, 2005; Garralda & Rangel, 2002; Lievesley et al., 2014; NICE, 2007a; Richards, 2000). In children and adolescents prevalence rates range from 0.18–2.3%. The condition is more common in girls than boys at a ratio of 3:1. About 50% of cases meet the diagnostic criteria for anxiety or depression. In the past, the condition was known as chronic fatigue immune dysfunction syndrome, fatigue dysphoria syndrome, post-viral-fatigue syndrome, myalgic encephalomyelitis, epidemic neuromyasthenia, and neurasthenia, although in ICD-10 neurasthenia is distinguished from chronic fatigue syndrome. The degree of disability shown by children suffering from fatigue syndromes is extraordinary and may exceed that shown by children with juvenile arthritis or cystic fibrosis. Chronic fatigue syndrome usually develops during a viral illness but remains after the illness has cleared. So, viral illness is the most common precipitating factor. Typically medical and laboratory investigations are negative. A personal coping style characterized by emotional sensitivity, anxiety, rigidity, conscientiousness, over-dependency and over-conformity with parental authority; a build up of life stresses at home, school and in the peer group with which the child has difficulty coping using these strategies; and consequent immunosuppression are possible predisposing factors. The build-up of stresses may involve fear of academic, athletic or social failure. These fears may be associated with inappropriately high personal or family expectations. Possible maintaining factors include the absence of good personal and family coping skills; exclusively biological attributions for the child's experience of chronic fatigue and related symptoms; fear that the condition may deteriorate further and consequent avoidance of activity which exacerbates fatigue; inadvertent parental reinforcement of children's inactivity; and poor co-ordination and lack of consistency in the formulation and management offered by the professional network. Better outcome occurs in cases of high socio-economic status; where the there is a clear precipitating factor; when the onset occurs in the autumn; when the duration of fatigue is less than a year; and where active coping that counters the cycle of avoidance, such as carefully planned home tuition are present; and where the professional network offers a clear coherent formulation and management plan. Best clinical practice involves thorough multi-disciplinary assessment and the implementation of a family-based treatment programme which includes psychoeducation; self-monitoring of activity, rest and sleep patterns; graded increase in activity levels and regularization of the sleep–waking cycle; contingency management; home–school liaison; and coping skills training. Recovery occurs in over two-thirds of cases.

Assessment

Close liaison between the clinical psychologist, the family doctor and all members of the paediatric medical team is essential in the management of cases of chronic fatigue syndrome to avoid giving children and families mixed messages about the diagnosis and management plan. A thorough paediatric medical evaluation should be conducted and a full child and family assessment following the guidelines set out in Chapter 4 and the framework given in Figure 14.2. Specific attention should be paid to the role of the predisposing precipitating, maintaining and protective factors mentioned in the previous section. A comprehensive formulation in which predisposing, precipitating, maintaining and protective factors are specified should be drawn up on the basis of salient features drawn from the assessment. A treatment plan based on the formulation may then be developed.

Treatment

Once the multi-disciplinary team has reached agreement on the diagnosis of chronic fatigue syndrome and developed a formulation, arrangements should be made to communicate this diagnosis and formulation and to highlight the team's agreement about it to the child and family. In light of this, a management plan may be offered (Chalder, 2005).

Psychoeducation and presentation of the formulation. This feedback process should be arranged so that a number of goals are met. First, the child's experience of fatigue should be affirmed as distressing and the lack of engagement in activities as understandable. Second, the parents' management of the symptoms should be affirmed. Their tendency to support the child's inactivity because of the apparent negative consequences of exercise, and academic and social activities should be described as understandable and a legitimate response to the condition. Parents need to be told that they have done a good job of coping with their child's fatigue and related symptoms. Third, the build-up of stresses in the school, the peer group and at home, and the ways in which these were coped with by the child and the probable under-functioning of the child's immune system should be proposed. Fourth, the key role of viral infection in triggering the flu-like symptoms and fatigue should be identified as the starting point of the chronic fatigue syndrome. Fifth, the current symptoms may be described as an after-effect of the viral infection and under-functioning of the immune system which is partly maintained by lack of exercise, lack of engagement in school and peer group activities, and a disrupted sleep–waking cycle. Sixth, the slow and gradual return to a normal lifestyle involving a regular sleep pattern and a gradual increase in activity should be presented as the central focus of the management plan. An analogy may be drawn with an athlete who has become unfit after an injury and who requires a careful programme of graded exercise to regain peak fitness. Seventh, the parents' role in supporting the child's gradual and graded return to normal activity level may be highlighted. An analogy may be drawn with the role of a coach in helping an unfit athlete return to peak fitness though facilitating a gradual daily increase in exercise and a gradual regularization of sleep and dietary patterns. The programme may be offered as a series of 15–20 family sessions spaced at weekly, fortnightly and later monthly intervals over a period of 9–12 months. Self-help reading material may be given to the family (Campline & Sharpe, 2008; Chalder, 1995; Chalder & Hussain, 2002).

Self-monitoring and goal setting. Children and parents may be invited to keep a daily diary in which a detailed record is kept of the child's activity, rest and sleeping patterns. This diary should be kept throughout treatment to monitor progress. Following a 1- or 2-week baseline period, an estimate may be made of the amount of time spent each day engaging in activities, resting and sleeping. In light of this information overall long-term treatment goals may be set as well as short-term weekly targets. Weekly targets should aim to gradually increase the amount of time engaged in specific physical, academic and peer group activities and decrease the amount of time resting each day by a specified set amount. The longer-term goal should be to restore a reasonable level of daily activity with short rest periods. Weekly targets for regularizing the sleep–waking cycle should also be set with the long-term aim of helping the child establish a pattern of sleeping 8–10 hours per night with regular retiring and waking times.

Graded increased activity scheduling. Over the course of treatment daily targets should be set to gradually increase activity levels, decrease rest periods, eliminate catnaps, and routinize the timing and duration of night-time sleep. Specific daily targets should cover physical exercise (e.g. walking for 10 minutes twice a day and keeping going even when this is very challenging); academic activity (e.g. attending school for an hour a day or doing 30 minutes supervised study per day); peer group activities (e.g. having friends round for an hour a day); resting (e.g. resting without catnapping during the day); and sleeping (e.g. retiring at 11 and rising at 8 each day).

Contingency management. The parents' role, it may be explained, is to supervise and reward the child for developing a lifestyle that includes gradually increasing levels of activity, shorter rest periods, a regular sleep–waking cycle, and a reduced conversational focus on health issues. Smiling face charts like that in Figure 14.5, a points system or a token system may all be used to reward children regularly for achieving daily activity targets, rest and sleep targets. These daily points, tokens or smiling faces may be accumulated and exchanged for valued rewards on a weekly basis.

Home–school liaison. Meetings involving the child, parents and relevant school staff and home tutors (if such tutors are involved) should be set up to plan a gradual increase in the child's school attendance and activity level while in school.

Coping skills training. Children with chronic fatigue syndrome may have developed avoidant coping strategies (such as avoiding exercise) and hold unhelpful beliefs such as 'my fatigue is due to biological factors and so requires a medical cure'; 'I can't increase my activity levels or I will become exhausted'; 'I must be very good a sports or schoolwork otherwise I will be failure'; 'I'm so far behind in my schoolwork, there is no point in returning now.' In place of avoidant coping strategies, children may be encouraged to carefully plan a graded increase in activity. Maladaptive beliefs may be countered using the CTR method described in Chapter 12. Where children have co-morbid anxiety or depression, treatment protocols described in Chapters 12 and 16 may be used.

Preparation for painful medical and dental procedures

In a paediatric setting clinical psychologists may be asked to consult to cases where children are undergoing painful medical procedures. These include routine injections and more complex painful procedures such as the management of burns, bone marrow aspirations and lumbar punctures. In dental settings, fear of pain associated with drilling and extractions may lead to a referral to psychology (Blount et al., 2009; Kazak, 2005; Murphy & Carr, 2000).

To help children to manage painful medical and dental procedures a number of psychological interventions have been shown to be useful. All of these have maximum benefit when learned and used within the context of a supportive network which ideally should include the child's parents as well as the psychologist and other members of the treatment team. The specific pain control techniques include preparatory psychoeducation, modelling and desensitization; giving the child some degree of control over the procedure; giving the child permission to cry and express distress, distraction, relaxation, visualization, auto-hypnosis, re-framing and self-instruction; reward systems; and parental involvement.

Psychoeducation. With preparatory psychoeducation, the central feature of treatment is giving children both objective procedural information about the specific medical or dental procedure they will undergo and subjective sensory information about the sensations they will experience when undergoing the procedure. With an injection, procedural information includes the fact that the skin will first be disinfected, the needle will be inserted, the plunger of the syringe will be pushed slowly, the needle will be withdrawn, a small piece of cotton wool will be placed over the little needle hole, and it will be secured with an elastoplaster. Sensory information about the same event would be that the disinfectant will be cold. The insertion of the needle will be like a small pinch. When the plunger is being depressed, they will not feel much but when the needle is withdrawn and a bandage put on the injection site, it will feel a bit tight for a few minutes. It is crucial that the psychologist be fully familiar with the procedure in order to give children accurate sensory and procedural information. Pictures, diagrams and videotapes may be used to give this procedural and sensory information to the child.

An important issue is the most effective way to give sensory and procedural information to children. While there is little literature on this issue for paediatric populations, the literature on pain management in adults indicates that people tend to have a preference for one of two broad coping strategies when faced with painful medical and dental procedures. In the first of these, the patient actively seeks information about the anticipated procedure and uses this information to rehearse the way in which they will cope with the painful event. The second strategy is to passively avoid information and engage in distracting activities. Patients who habitually use a passive, avoidant coping style require more frequent and intensive exposure to procedural and sensory information, to desensitize them to it and equip them to use more active coping strategies when they face a painful medical procedure (Sarafino & Smith, 2014). Brief psychoeducational interventions with people who habitually use a passive, avoidant coping style may sensitize them to the painful medical procedure and they may actually experience more pain than if they were given no information! The implications of this interpretation of available data on coping styles for the management of children is as follows.

A careful assessment of whether children typically use an active and passive coping style should be incorporated into the psychoeducational intervention. Where children indicated that they would rather not think about the procedure, additional time may be scheduled to allow them to overcome this avoidance and to familiarize themselves extensively with the relevant procedural and sensory information.

Modelling and rehearsal. With modelling, children are offered an opportunity to see another child or surrogate going through the medical procedure for which they are being prepared. Videotapes of other children going through similar procedures, puppets or dolls may be used as models. It is important for the models used in demonstrations of the procedures to make statements about their sensory experiences and to give an account of their coping strategies. Modelling is usefully coupled with rehearsal where the child role-plays going through the procedure using coping strategies to manage the pain. An alternative to role-play is for the child to enact the procedure with dolls or puppets and verbalize the experiences and coping strategies used by the doll or the puppet. For example, injection procedures may be modelled using a doll and a toy syringe set. Following this the child may re-enact the injection procedure and take the role of the nurse giving the doll the injection and instructing the doll in how to cope with the procedure (Ioannou, 1991).

Giving control. Giving children a sense of control over some aspect of the procedure reduces pain. The psychologist may find out from the members of the medical or dental team what aspects of the procedure may be placed under the child's control and incorporate this into control training. For example, children facing painful dental procedure may be informed that there is a red button on the arm of the dentist chair and if they push this, the drill will stop. Thus, they can be reassured that they will never have to face more discomfort than they can withstand. Another way in which children may be offered control is to give them permission to cry as loud as they wish and to express as much distress as they wish without fear of embarrassment or disapproval.

Distraction. Helping the child to focus on something other than the medical or dental procedure and the related pain sensations is the key feature of distraction. It is important that the distracting stimuli be complex and interesting enough to hold the child's attention and that the stimuli be age appropriate. Pre-schoolers may be distracted by nursery rhymes, particularly those involving distracting sensory routines such as round-and-round-the-garden-goes-the-teddy-bear. For pre-schoolers, toys that engage the child's attention for a few minutes at a time and require little activity, such as a jack-in-the-box, are useful distracters. Storybooks with pictures are also useful distracters for the younger child. With school-going children handheld videogames are sufficiently engrossing to distract many youngsters from painful medical procedures. Number games, such as counting by fives or doing mental arithmetic are also possible distracters.

Relaxation. An approach to teaching children progressive muscle relaxation, breathing and visualization skills is presented in Chapter 12 which deals with anxiety. Youngsters who are facing painful medical procedures may be coached using similar techniques.

Auto-hypnosis. There is substantial evidence to show that hypnosis may be used to manage pain and related anxiety (Accardi & Milling, 2009; Gold et al., 2007). The more hypnotizable the child, the better the outcome for acute pain. Hypnotizability may be assessed using the Stanford Hypnotic Scale for Children (Morgan & Hilgard, 1979). There are many induction techniques (Cohen & Olness, 2011; Sugarman & Webster, 2012). With pre-adolescent children, I use a technique where children close their eyes and imagine themselves going on a journey in a hot air balloon and leaving the pain and anxiety behind. The suggestion of rising in the balloon and flying further away is used to help youngsters deepen their trance. They are then invited to imagine that the particular area where the pain will be localized has become as cold as ice and then that it has become completely numb. This suggestion is repeated a number of times. This procedure can induce a marked degree of anaesthesia. Significant skill in inducing such anaesthesia may be learned in a couple of pre-procedural sessions, and tape-recording therapy sessions may be used to help children develop self-hypnosis skills which they can then use during painful medical and dental procedures.

Re-framing and self-instruction. With re-framing the child is coached in how to imagine that the painful procedure is occurring within a context that is less pain-inducing than the medical or dental setting (such as receiving an injury while scoring a goal in a football match) or that the experience is not pain but some other sensation (such as tightness). Children may be shown how to use self-instructions to redirect their attention (e.g. 'I'm thinking about my holidays.'); to define themselves as coping adequately (e.g. 'I'm doing well. I'm brave.'); and to reward themselves for coping (e.g. 'Great! I did it.').

Desensitization. For children who show high levels of fear and avoidance of dental or medical procedures, a hierarchy of approximations to the procedure may be developed and the child may be offered an opportunity to cope with each of these using relaxation and other coping skills. For example with a needle phobia, the steps of the hierarchy may include

- looking at an encased needle
- touching an encased needle
- touching a needle which has been removed form its case
- placing the needle on the skin
- piercing the top layer of tough skin of the index finger with the needle
- placing the tip of the needle at the injection site
- receiving an injection.

Throughout each desensitization session the child should be instructed to regularly report his or her anxiety level on a 10-point scale. The child may progress from one step in the hierarchy to the next when their anxiety level has reached a peak and then declined significantly. If children attempt to cope with a step in the hierarchy but then withdraw before their anxiety has reached a peak and begun to decline, they become sensitized to the feared stimulus and the treatment programme actually makes their anxiety increase rather than decrease. In light of this, it is critical to explain all this to parents and children before contracting to complete a desensitization programme. Children should feel confident that they have mastered relaxation, distraction and self-instructional coping skills before beginning a desensitization session.

Reward systems. Children may be rewarded for all approximations to adequate coping with praise and approval throughout the process of psychoeducation; while coaching children in pain management prior to a painful procedure; and when managing pain during the procedure. Where children have particularly strong fears of the procedure and desensitization is necessary, a reward system may be used where the child is rewarded with points or tokens for each step in the desensitization programme, and these points may be used for obtaining valued reinforcers. Finally, a highly valued prize may be awarded for having the courage to complete the medical or dental procedure. This type of reward will have maximum benefit as a pain management strategy, if the child selects the prize before event and is encouraged to anticipate receiving it during the procedure.

Family involvement. Except in instances where parents are very anxious about medical or dental procedures, complete parental involvement in pain management programmes is advised, since the feelings of safety and security associated with proximity to attachment figures reduces pain. Parents may attend all sessions and be shown how to engage the child at home in practicing the skills learned in the sessions.

Asthma

Asthma is a reversible reactive airway disease. About 6.9% of children have asthma and most asthmatics have their first episode in childhood (Wennergren, 2011). About 50% of asthmatic children grow out of their condition by adulthood. However, there is no way to tell who will grow out of asthma and who will not. A small but significant proportion of children die from asthma and this number is increasing every year. A case example of asthma is presented in Box 14.4.

The central feature of an asthma attack is bronchial constriction (McQuaid & Walders Abramson, 2009). Asthma attacks begin when the immune system produces antibodies that cause the bronchial tubes to release histamine. Histamine causes the smooth muscles in the walls of the smaller air passages of the lungs (bronchi and bronchioles) which are controlled by the autonomic nervous system to become inflamed, contract and produce mucus. These secretions in the air passages of the lungs accumulate and the walls of the air passages swell.

Tissue damage may occur as a result of this swelling and make future attacks more likely. The child has difficulty breathing and coughing up the secretions. The lungs tend to become overfilled with air and the chest cavity becomes over-expanded. As the attack continues, the child has more and more difficulty breathing. Wheezing occurs. Less and less oxygen is taken in. The child becomes pale and the lips take on a blue tinge. If the attack persists without treatment, the child becomes unconscious, develops seizures due to lack of oxygen and may suffer brain damage due to hypoxia. Severe attacks of asthma may be fatal. In recent years fatalities due to asthma have increased and deaths are associated with hypoxic seizures, previous respiratory arrest, non-adherence to medication regime, poor self-care and family dysfunction.

A range of factors are involved in the aetiology of asthma (Drotar & Bonner, 2009; Lehrer et al., 2002; McQuaid & Walders Abramson, 2009; Miller & Wood, 1991; Tibosch et al., 2011). Both physiological and psychosocial predisposing factors have been identified. At a physiological level, children may be genetically predisposed to developing asthma. Such children typically have relatives who have suffered from asthma, allergies, hay fever or eczema. All of these conditions reflect the presence of an atopic constitution. Evidence is growing that the IgE antibody plays a central role in the mechanism under-pinning symptom expression in asthma and that the regulation of IgE antibody level is under genetic control. A history of viral respiratory infections in infancy may also predispose youngsters to developing asthma. Such infections may damage the respiratory system, rendering it sensitive to certain triggering conditions. At a psychological level, parental beliefs about asthma may lead them to interact with their children and other family members in anxiety-provoking ways. High levels of child and parent anxiety may predispose youngsters, particularly those with a genetic vulnerability to developing asthma. Parents who have suffered from asthma themselves or who have watched their siblings or parents cope with asthma may have developed inaccurate and unhelpful beliefs about the condition. For example, many mothers with severe asthma experience a worsening of their condition during pregnancy. This first-hand experience of severe asthma may lead such mothers to believe that their child is in constant danger of respiratory arrest and therefore warrants continual monitoring and very close supervision. On the other hand, parents who have not experienced asthma themselves but who have grown up in families where siblings have suffered from asthma may harbour considerable hostility towards the siblings for claiming the lion's share of parental attention. When they find that their own children suffer from asthma they may adopt a critical stance and view the symptoms as a sign of weakness or attention-seeking behaviour. Suggestibility may also be a predisposing factor since there is clear evidence that bronchodilation and constriction may be influenced by suggestion, particularly in suggestible youngsters (Isenberg et al., 1992).

Asthma attacks may be precipitated by allergy, infection, physical exercise and cold air or psychological factors that lead to autonomic arousal. Common allergens that cause asthma attacks are dust, pollen, cat and dog hair, air pollution and house mites. Psychological factors which may lead to hyperarousal and precipitate an asthma attack include stresses within the family, school or peer group that pose an immediate threat to the person's perceived safety or security and so cause anger or anxiety. These stresses include rigid, repetitive patterns characterized by enmeshment or over-involvement with a highly anxious parent; triangulation where the child is required, usually covertly, to take sides with one or other parent in a conflict; or a chaotic family environment where parents institute no clear rules and routines for children's daily activities or medication regime when asthma attacks are likely to occur.

The child's breathing difficulties during an attack may be extremely distressing both for the child and the parents. The distressing nature of the respiratory symptoms and the fact that asthma may be fatal may lead some children and their parents to respond to asthma with considerable anxiety, which in turn may exacerbates or maintains the symptoms. Alternatively, where parents view asthma as a sign of weakness or attention-seeking, the child's anticipation of the parents' punitive or neglectful response to the attacks may exacerbate or maintain the attacks. There is also considerable variability in the ways in which family physicians and paediatricians respond to asthma. Some intervene early with aggressive treatment while others intervene later with a less intensive approach. Such variability may be confusing for parents, who themselves are uncertain how to proceed when an attack begins. This confusion fuels parental anxiety, which in turn increases the child's arousal level and exacerbates or maintains the condition.

Asthma may lead to learning difficulties, particularly if it is poorly controlled (Annett, 2004; Bender, 1999). Factors that contribute to such difficulties in children with asthma include the iatrogenic effects of oral steroids, poor management of the disease and stress associated with having a chronic illness.

Routine paediatric treatment of asthma includes the administration of steroids (such as Becotide) and bronchodilators (such as Ventolin) in relatively high doses during an attack. Bronchodilators open the constricted airways. Steroids reduce inflammation. Asthma is an episodic condition and in addition to avoiding situations that may trigger attacks and a regime of gentle exercise, typically maintenance doses of steroids and bronchodilators are prescribed between attacks. These are usually self-administered or administered by the parents using an inhaler. However, both have side effects. Excessive use of steroids renders the body vulnerable to infections and excessive use of bronchodilators leads to disinhibition.

Assessment

Where children with asthma have severe and frequent attacks, they may be referred for a psychological consultation. In assessing such cases, predisposing, precipitating and maintaining factors outlined earlier should be added to the routine assessment protocol set out in Chapter 4 and Figure 14.2. A number of structured instruments that may be useful in assessing asthma symptomatology, its impact on quality of life, self-efficacy beliefs relevant to the management of asthma and family competence in managing asthma are set out in Table 14.4. Following formulation where predisposing, precipitating, maintaining and protective factors relevant to the specific case are specified, a case management plan may be developed.

Treatment

Case management for asthma should be family based and may include psychoeducation, relaxation training, self-management skills training, a reward programme to improve adherence and family work to disrupt patterns of interaction that maintain the condition (Brinkley et al., 2002; Guevara et al., 2003; McQuaid & Walders Abramson, 2009).

Psychoeducation. Within the psychoeducational aspect of treatment, the symptoms of asthma and the predisposing, precipitating and maintaining factors that may underpin the condition should be explained. In light of this the specific factors relevant to the case should be described within the context of a formulation. The importance of self-monitoring of respiratory functioning, avoiding triggers, using medication appropriately and practicing relaxation should be highlighted.

Self-management skills. Self-management skills of particular importance for youngsters with asthma are self-monitoring, environmental control, relaxation and cognitive restructuring. For self-monitoring, the chart presented in Figure 14.4 may be adapted so that youngsters may record the medication that they have taken, the status of their symptoms, the situations in which the symptoms occur with particular reference to allergens and emotionally arousing family interactions, and the thoughts (both anxiety-generating and anxiety-reducing) that they have in these situations. Daily peak flow meter readings are a reliable index of symptomatology. A peak flow meter is a device to assess the efficiency of the child's lungs. Increases in peak flow meter readings are an objective index of improvement in respiratory functioning.

With respect to environmental control, youngsters should be encouraged to learn from their self-monitoring charts situations that lead them to have respiratory difficulties and those that do not. They should then be helped to plan to avoid physical environments that precipitate asthma attacks, such as dusty rooms or gardens where there are high levels of pollen. There may also be psychosocial situations that precipitate attacks such as becoming involved in intense three-way interactions with both parents. These may be dealt with in family sessions specifically aimed at disrupting such transactions.

The relaxation and cognitive restructuring skills described in Chapter 12 for anxiety management, may be incorporated into treatment programmes for asthmatic youngsters. Youngsters may be trained in how to use progressive muscle relaxation, breathing exercises and visualization to reduce physiological arousal and manage asthma symptoms. Cognitive restructuring may be used to modify the anxiety-provoking thoughts that increase arousal and exacerbate asthma symptoms.

Family work. Family intervention should aim to disrupt interaction patterns that maintain symptoms (Lask & Fosson, 1989). These fall broadly speaking into two categories. First, there are those interaction patterns that increase autonomic arousal, which in turn leads to bronchial constriction and eventually to asthma attacks. Second, there are interaction patterns which do not facilitate adherence to the medication regime and the avoidance of environments that constrain allergens that precipitate asthma attacks.

Intense, intrusive emotional interactions between an over-involved parent and an asthmatic child may increase arousal. Such interactions often occur as part of a pattern of triangulation, where the child is involved in an intense relationship with one parent and a distant relationship with another and the parents have a weak inter-parental alliance. In such instances, the less involved parent may be invited to take on the role of managing the child's asthma, with the rational that this may give the other parent a well-deserved break (Minuchin et al., 1978). Alternatively, both parents may be invited to spend 30 minutes each night, without the child present, reviewing the child's progress and planning how to manage the next day. Both of these types of intervention reduce the emotional intensity of the asthma-related interactions in which the child is engaged. They also create opportunities to discuss the beliefs that underpin the over-involved parent's intense emotional reactions within family sessions. Providing opportunities for parents to express their worst fears about their child's fate as a victim of asthma and the ways in which these fears have evolved within family sessions sets the stage for altering these anxiety-provoking belief systems. Within family sessions, parents may be invited to re-evaluate these catastrophic beliefs and to develop low-anxiety strategies for managing asthma attacks. With families that display such emotionally intense interaction patterns, adherence and avoidance of allergenic environments are rarely major problems. So, planning low-anxiety strategies for asthma management should focus on giving the child more autonomy for the self-management of asthma. That is, using self-monitoring, relaxation and cognitive restructuring to reduce arousal and decrease the probability of asthma attack. It is therefore useful to engage the child in concurrent individual sessions to teach these skills and foster increased autonomy.

Interaction patterns that do not facilitate adherence to the medication regime and the avoidance of environments that contain allergens which precipitate asthma attacks tend to occur in chaotic or neglectful families. In these families, raising awareness that asthma can be fatal is a useful way to help parents and children focus their efforts on avoiding precipitants and increasing compliance. Here, it is useful to explain the formulation in detail and to logically outline how starving the body of oxygen can eventually lead to hypoxic seizures, respiratory arrest, unconsciousness and death. Where parents have difficulty understanding just how debilitating asthma can be, simulation exercises may be set up to help them empathize with their children. For example, parents may be given a straw to breathe through and then be invited to do some gentle exercise like jogging on the spot for a couple of minutes while only breathing through a straw. The breathlessness that this exercise induces and the sense of oxygen starvation allows parents to understand the sort of discomfort their children are suffering during an asthma attack.

Next, the parents and children may be helped to construct a poster for the kitchen with a list of Dos and Don'ts on it. This poster may include in the Dos column: Do take 3 puffs of Ventolin 3 times a day. Do remember to take puffer to school. Do get a smiling face on the reward chart each night you do this. Do call your parents if you get a tight chest at night. In the Don'ts column, the following list may appear: Don't stroke cats or dogs; Don't go into dusty places; Don't play in the hayfield. Don't say it will go away if I ignore it. Alongside the Dos and Don'ts poster, a reward chart should be set up like that presented in Figure 14.5. Each time children take their medication as prescribed they colour in a smiling face, and a number of these can be cashed in for a prize at the end of the week. Finally, an emergency routine needs to be established, stating each person's responsibility when an acute attack occurs. The family should be helped to write this routine on a poster to be hung in the kitchen. The routine should be rehearsed a couple of times in family sessions.

Epilepsy

Epilepsy is a condition marked by recurrent seizures that result from electrophysiological disturbances in the cerebral cortex (Deidrick et al., 2009; Harris, 2008). The period of abnormal electrical activity is referred to as the *ictus*. Typically a diagnosis is reached on the basis of full clinical examination in conjunction with EEG results. Epileptic seizures are distinguished from febrile convulsions which occur during a febrile illness, hypoglycaemic seizures associated with diabetes, and hypoxic seizures that occur during breath-holding or an asthma attack. Epileptic seizures are also distinguished from fainting and pseudoseizures or those that occur in non-epileptic attack disorder which mimic epileptic seizures but are not accompanied by EEG abnormalities. However, it should be kept in mind that co-morbid epileptic seizures and pseudoseizures are not uncommon.

The prevalence of epilepsy in the general population is about 1% and it is associated with multiple co-morbidities (Russ et al., 2012; Verrotti et al., 2014). The peak age of onset for epilepsy is in early childhood, except in children with autism spectrum disorder (ASD), where onset typically occurs in late adolescence. Epilepsy is more common in lower-income families. One-third to three-quarters of children with epilepsy have co-morbid psychological problems including intellectual disability, ADHD, conduct problems, anxiety, depression, ASD, headaches and school-based learning difficulties.

Epileptic seizure disorders have been sub-classified in various ways. Traditionally a distinction has been made between grand mal and petit mal seizures. Grand mal (or tonic-clonic) seizure is the term given to a condition where seizures of a couple of minutes duration are preceded by an aura in which unexplained sounds, smells or other sensations occur. During the subsequent, very brief tonic phase of the seizure, breathing ceases and consciousness is lost. In the clonic phase which follows, twitching and muscle spasms occur. In the last stage the person drifts into a relaxed comatose state until awakening. During a petit mal attack, there is a momentary *absence* which involves diminished consciousness. During this no movement occurs or it may be accompanied by slight facial twitching. After the attack the children carry on with whatever they were doing beforehand, often not noticing that they have been absent.

While the distinction between petit mal and grand mal seizures is still widely used clinically, the Commission on Classification and Terminology of the International League Against Epilepsy (Berg et al., 2010) has argued that a more sophisticated classification system is required which takes account of the aetiology and underlying electrophysiological basis for seizures rather than classifying on the basis of observable symptomatology alone. With respect to underlying brain activity as assessed by EEG, a basic distinction is made between focal and generalized seizures. Focal seizures are confined to one cerebral hemisphere whereas generalized seizures spread to both hemispheres. With respect to aetiology, a distinction is made between epilepsies arising from genetic factors and from structural or metabolic factors.

Temporal lobe epilepsy is of concern to clinical psychologists because this disorder may be associated with more pronounced psychological adjustment problems, particularly anger control, inattention and over-activity. Temporal lobe epilepsy begins with an epigastric aura, dizziness and flushing. In adults but not children these may be accompanied by déjà vu–distorted perceptions and hallucinations. The aura is typically experienced as extremely frightening. The seizures are of the grand mal, tonic-clonic variety. While many children with temporal lobe epilepsy develop into well-adjusted adults, temporal lobe epilepsy is a risk factor for a schizophrenia-like condition (inter-ictal psychosis) in adult life, with up to 10% developing this psychotic condition. Also, boys with temporal lobe epilepsy are likely to be sexually inactive and remain unmarried.

Frontal lobe epilepsy is of interest to psychologists because this condition may be misdiagnosed as pseudoseizures or parasomnias. These seizures which occur primarily during sleep are characterized by complex movements including punching with the arms, cycling with the legs, torso twisting and vocalizations including shouting or swearing. The seizures begin and end abruptly, tonic-clonic movements are absent and there is a rapid return to responsiveness. Frontal lobe seizures are often mistaken for pseudoseizures because of the complexity of the movements, the vocalizations and the abrupt return to responsiveness.

The evaluation of children with epilepsy invariably involves an EEG in addition to a routine paediatric neurological evaluation. Treatment involves a long-term regime of anticonvulsant medication. Common anticonvulsants include sodium valproate, carbamazepine, oxcarbazepine, lamotrigine and phenobarbitone (Wheless et al., 2007).

Epilepsy and associated co-morbid psychological problems may cause high levels of psychosocial difficulties for children with seizure disorders and their families. These include stress, stigmatization, restriction of children's social activities, family conflict, peer-relationship problems and school difficulties (Pinikahana & Walker, 2011; Russ et al., 2012). The quality of family support of the child may be an important intervening factor between epilepsy and the child's overall adjustment.

Assessment

Children with seizure disorders may be referred for psychological consultation to help with the differential diagnosis of seizures and pseudoseizures to assess cognitive impairment associated with epilepsy or anticonvulsant medication, and to help youngsters and their families adjust to the seizure disorder and avoid situations that may precipitate seizures, to adhere to treatment regimes and address co-morbid psychological problems.

Differential diagnosis of pseudoseizures. Making the differential diagnosis of pseudoseizures (also known as psychogenic non-epileptic seizures; La France et al., 2013) poses a diagnostic challenge because most youngsters with pseudoseizures also present with epileptic seizures, both types of seizures are typically precipitated by a build-up of stress, and both may be associated with personal and family-based adjustment problems. However, with video-EEG telemetry and careful history taking a differential diagnosis of seizures and pseudoseizure may be made. Harris (2008) listed criteria which may distinguish between seizures and pseudoseizures: they occur on video in the absence of EEG abnormalities; the onset is triggered by stressful events and is gradual rather than abrupt; they follow a non-physiological progression or pattern with variable involvement of various part of the body; quivering and flailing but not a true clonus occurs; dramatic screaming accompanied by semi-purposive movements occur; painful stimuli and serious injury are avoided; they are similar to seizures the child has witnessed in others; there is prompt recovery following what looks like a generalized grand mal seizure; and they end abruptly with a complete return to an alert state of consciousness. It is possible to induce pseudoseizures through suggestion while the child is in a light trance (La France, 2013). Children who present with pseudoseizures may have a history of other MUSs. Where children have pseudoseizures, they may be managed following the guidelines set out for conversion symptoms in an earlier section of this chapter.

Assessment of cognitive impairment. Children with seizure disorders may show cognitive impairment on intelligence, attainment and neuropsychological tests, this may be associated with intellectual disability, ADHD, ASD and specific learning disorders which are more common among children with epilepsy (Braakman et al., 2011; Russ et al., 2012). However, anticonvulsant medication may impair cognitive functioning. Where children with epilepsy are referred for psychological assessment of cognitive abilities, a full assessment of attainment, intelligence and neuropsychological functioning may be conducted while on anticonvulsant medication. Appropriate standardized tests for assessing these functions are described in Chapter 8. However, if the concern is the impact of the medication on academic performance, an assessment during a low-stress 'medication holiday' should be arranged. Sufficient time should be allowed to pass for the anticonvulsants to wash out of the child's system. Where possible, parallel forms of cognitive and attainment test should be used to minimize learning effects from the first to the second assessment.

Treatment

Psychoeducation, illness management and the provision of support or arrangement for support group membership are the principal components of psychological treatment packages for children with epilepsy and their families.

Psychoeducation. Children with epilepsy and their parents require an opportunity to be given up-to-date and accurate information about medical, psychosocial, legal and historical aspects of epilepsy. At a medical level information should be given on the specific form of epilepsy that the child has; the EEG results and aspects of the history that have been taken into account in making the diagnosis; the factors that may precipitate seizures; the appropriate use of medication; and possible cognitive and other side effects of medication. A clear distinction between epilepsy and psychosis needs to be made since there are many myths about epilepsy and madness propagated through folklore and the media. Information on the law relating to epilepsy, driving and operating heavy machinery should be given. In most countries, people with a diagnosis of epilepsy are not permitted to drive a car unless they have been seizure-free for a period of months. Also, some career options, such as being an aircraft pilot, are closed to people with epilepsy. It may also be useful to reduce negative impact of the diagnosis by pointing to the many talented people who have had epilepsy including the Russian novelist Dostoevsky, the musicians Neil Young and Prince, and the French heroine Saint Joan of Arc.

Illness management skills. Children with epilepsy and their parents require training in monitoring the occurrence of the seizures, the precipitants of the seizures, adherence to the medication regime and the side effects of medication including drowsiness and impaired cognitive or academic performance. The monitoring chart presented in Figure 14.4 may be useful for this. Where increased arousal precipitates seizures, training in relaxation skills, such as those outlined in Chapter 12, may be conducted to equip children to reduce arousal in situations where seizures occur. Reward systems, described in Table 4.5 in Chapter 4, may be used by parents to help children adhere to their medication regimes and avoid situations that precipitate seizures.

Support groups. Youngsters and their parents may be given information on local and national epilepsy support groups and organizations. Contact with such organizations reduces the sense of stigmatization and isolation that children and families may feel as a result of the seizure disorder.

Co-morbid problems: Where young people with epilepsy present with co-morbid psychological problems (for example, intellectual disability, ADHD, conduct problems, anxiety, depression, ASD, headaches and specific learning disorders), these may be treated following protocols in other chapters relevant to these conditions.

Diabetes mellitus

Juvenile-onset insulin-dependent diabetes mellitus is a complex condition which affects under 0.2% of school-age children and adolescents (Christie & Martin, 2012; International Diabetes Federation, 2011; NICE, 2004a; Wysocki et al., 2009). A case example of diabetes is presented in Box 14.5. Diabetes has changed as a result of advances in its medical management, from being a brief fatal condition to being a chronic illness requiring careful management if long-term negative consequences are to be avoided. The disease affects islet cells of the pancreas and is characterized by a deficiency in insulin production, a deficiency that may now be corrected through careful monitoring of blood sugar levels and a regular intake of insulin. In the short term, failure to adequately monitor blood sugar levels and take appropriate amounts of insulin may lead to a coma induced by hyperglycaemia or hypoglycaemia. In the long term, poorly controlled diabetes may lead to neuropathy and retinopathy with increased risk of heart disease, kidney disease, blindness and lower limb infections leading to gangrene. In such instances amputation may be necessary. Men with a history of poorly controlled diabetes are at risk for impotence associated with neuropathy. A significant proportion of people with diabetes develop obesity in adulthood. Routine medical treatment for diabetes involves (1) regular blood sugar tests; (2) regular intake of insulin by tablet or injection; (3) a low-sugar, low-fat, high-fibre diet; and (4) a moderate amount of daily exercise at times that will not have a negative effect on blood sugar levels.

Psychological factors influence the course of diabetes (Christie & Martin, 2012; Wysocki et al., 2009). Certain psychological characteristics of children and their families are associated with adherence to the diabetic regime and to good glycaemic control. Extensive empirical research has shown that these personal and family characteristics tend to be highly specific to diabetes and that more general indices of personal and family functioning are only associated with glycaemic control in extreme cases. Personal characteristics associated with glycaemic control and adherence include knowledge about diabetes, diabetes self-care skills, beliefs about the controllability of diabetes through the careful use of self-care skills, and anxiety usually associated with fear of short and long-term consequences of poor glycaemic control. The developmental stage of the child also has a bearing on glycaemic control, with adolescents showing more adherence problems and poorer control. Parent–adolescent conflict about autonomy-related issues may become focused on adherence to the diabetic regime and poor glycaemic control may result from this unfortunate state of affairs.

Family characteristics associated with good adherence and glycaemic control include parental support of the child, the absence of extreme anxiety about diabetes and good joint parental problem-solving skills with specific reference to diabetes management. These skills include monitoring adherence-related behaviours; promoting the use of appropriate diabetic self-care skills in the areas of diet, exercise, testing and insulin administration; offering positive reinforcement and praise for using self-care skills; and avoiding nagging, threatening, catastrophizing and criticizing for poor adherence.

High levels of adherence and glycaemic control are associated with characteristics of the wider health care network. Specifically good adherence is associated with congruence between the physician's, parents' and children's treatment regime adherence goals. This type of congruence is associated with psychoeducational strategies that take account of parents' beliefs about diabetes and children's level of cognitive development. A build-up of life stress either through exposure to many daily hassles or a smaller number of major life changes may precipitate episodes of poor glycaemic control.

Diabetes may have effects on many areas of the child's life (Christie & Martin, 2012; Wysocki et al., 2009). It may affect children's view of themselves, their cognitive abilities and academic achievements, their family and peer relationships, and their leisure activities. As with all chronic illnesses, the child is at risk for developing a negative self-image and low self-esteem because of their illness and the constraints it places upon them. This may be reinforced by critical or over-protective parental attitudes. Poor glycaemic control is associated with cognitive impairment and the development of learning difficulties. Thus, some youngsters with diabetes have attainment problems in school. Because exercise and diet must be carefully controlled in diabetes, youngsters with the condition may encounter problems in peer-group situations and leisure activities where there are pressures to, for example, eat sugar-based sweets or candy and engage in excessive physical exercise. In late adolescence and adulthood diabetes may also have an impact on vocational adjustment, and for men diabetes-related impotence may have a negative effect on sexual functioning in intimate relationships.

Assessment

Psychological consultation to youngsters with diabetes and their families should begin with thorough assessment of psychosocial, cognitive and academic functioning following the guidelines set out in Chapters 4 and 8 and the framework given in Figure 14.2. Additionally, instruments listed in Table 14.4 for assessing the following areas may be used: quality of life related to diabetes, knowledge about diabetes, beliefs about the controllability of diabetes, family diabetic-related behaviours, and adherence to the diabetes self-care regime. Salient features from the assessment may be integrated into a concise formulation in which predisposing, precipitating and maintaining factors are specified along with protective factors and family strengths that may be relevant to disease management.

Treatment

Effective psychological interventions for diabetes involve psychoeducation for the child and family, self-monitoring training, stress-management training, and family work aimed at helping the parents support the child in developing autonomous control over the self-care regime (Farrell et al., 2002; Hood et al., 2010; McBroom & Enriquez, 2009; Winkley et al., 2006)

Psychoeducation. Parents and children need a simple explanation of the complex relationship between blood sugar levels and insulin intake, diet and exercise. The short- and long-term effects of poor glycaemic control need to be highlighted. The importance of regular blood sugar testing as a way of optimizing control should be clarified. A wide range of self-help books and educational interactive software programmes are available to help young people and parents master this information.

Self-monitoring. Young people with diabetes are typically required by the paediatric clinic to regularly complete a self-monitoring chart on which they record the results of their blood sugar tests and the times at which they took insulin injections or tablets. Where young people have problems with glycaemic control, it is critical that they be trained in accurate self-monitoring, and in some instances a reward system may be used by parents to motivate them to take on the responsibility of self-monitoring.

Stress management. A high level of physiological arousal can reduce glycaemic control which in turn may lead to further anxiety and arousal. So, for some young people with diabetes a vicious cycle develops. One way to empower youngsters to break this cycle is to teach them the relaxation, breathing and visualization skills described in Chapter 12. However, relaxation can markedly reduce blood sugar, so exercises should not be practiced when blood sugar is below 4 mmol/l (Bradley, 1994). Where young people catastrophize about their diabetes, they may be taught to challenge these arousal producing cognitions using the CTR method described in Chapter 12.

Family work. The principal aims of family work in cases where children have poorly controlled diabetes are to increase the child's degree of autonomy in managing the illness, reduce the emotional intensity of parent–child interactions related to illness, coach parents and children in using clear supportive communication, and help all family members develop effective problem-solving routines for managing illness-related stress. Guidelines for training in communication and problem-solving skills are given in Table 4.2 in Chapter 4.

Cancer

Leukaemia and brain tumours are the most common types of paediatric cancer. In recent years with advances in treatment methods survival rates from childhood cancer have increased to 60–70% (Sandberg & Stevenson, 2008; Vannatta et al., 2009). For children with a poor prognosis, the central psychological issue is the process of anticipatory grieving through which the child and family pass prior to the child's death. Grief and loss are discussed in Chapter 24. In this chapter the concern is with psychological strategies for improving the quality of life of paediatric cancer survivors.

Leukaemia is a malignancy of the bone marrow characterized by unregulated rapid proliferation of malignant white blood cells (lymphoblasts). Lymphoblasts gradually replace healthy white blood cells and this results in anaemia, infection and haemorrhage. The most common overt signs are fatigue, fever, bruising and bone pain. Painful bone marrow aspirations are conducted to assess if lymphoblasts are present in the bone marrow. A lumbar puncture (spinal tap) is conducted to assess if there are lymphoblasts in the cerebrospinal fluid. Treatment is conducted over three phases. In the first phase (remission induction), over a 6-week period the child receives intensive chemotherapy which aims to destroy all lymphoblasts. The second phase (maintenance chemotherapy) involves a 30-month period of chemotherapy. In the third phase (prophylactic central nervous system treatment) chemotherapy is injected into the spinal canal (intrathecal therapy). It may be combined with cranial irradiation to destroy leukaemia cells in the brain. Progress is monitored over a 5-year period, and cases in remission at 5 years are considered cured.

The prognosis for brain tumours is not as good as that for leukaemia. Initial symptoms include headaches, nausea and vomiting. Later symptoms vary depending upon the site of the tumour. With cerebellar tumours, which are the most common in childhood, loss of balance may occur. Diagnosis is made on the basis of CT or MRI scans and a biopsy to determine the characteristic of the tumour. Treatment typically involves resection of the tumour followed by chemotherapy and/or cranial radiation therapy.

Chemotherapeutic agents interrupt the reproduction of cancer cells, but also have major side effects including abdominal pain, nausea, vomiting and hair loss. Many children undergoing chemotherapy develop anticipatory nausea and vomiting. Radiation therapy may also cause nausea, vomiting, inflammation, oedema and hair loss. In the longer term it may lead to neuropsychological deficits and infertility.

Paediatric cancer may be conceptualized within the stress and coping conceptual framework outlined earlier as a condition entailing many chronic strains for both the child and parents (Varni et al., 1996). These include treatment-related pain, nausea and vomiting; fatigue; visible treatment side effects such as hair loss, weight alteration, and physical disfigurement; and repeated absence from school and peer-group situations. Adjustment to these strains may be influenced by risk factors such as degree of disability, degree of functional independence and degree of stress. Adjustment may also be influenced by personal and contextual protective factors. Personal protective factors include coping strategies, easy temperament and problem-solving abilities. Contextual protective factors include intrafamilial and extrafamilial support.

Children who survive cancer and their families may present with psychological adjustment problems (Alderfer et al., 2010; Gibbins et al., 2012; Kestler & LoBiondo-Wood, 2012). These are due to the stress of cancer as a chronic life-threatening illness and the pain, discomfort and fatigue associated with its treatment. Learning difficulties may arise from both extended school absence and the impact of treatment, specifically cranial radiation therapy and intrathecal chemotherapy.

Assessment

In cases of paediatric cancer, where improving the child's quality of life is the central concern, a routine child and family assessment following the protocol described in Chapter 4 and the framework given in Figure 14.2 may be conducted and supplemented with inquiries about the impact of the diagnosis and illness-related stresses on family life and the child's adjustment. Deterioration in cognitive abilities due to treatment should be monitored through routine attainment and ability testing as described in Chapter 8. Educational intervention for learning problems should be arranged where appropriate. Formulation should take the child's central psychological difficulties such as pain control, mood regulation or educational problems and identify the predisposing, precipitating, maintaining and protective factors for these problems. Psychological management plans should focus on altering problem-maintaining factors.

Treatment

Results of systematic reviews indicate that treatment programmes for children with cancer may include psychoeducation and support for the child and family; pain-management skills training and graded increases in exercise to address fatigue for the child; support group membership for parents and children; and remedial educational input to compensate for time lost at school and learning difficulties that have developed due to treatment (Chang et al., 2013; Kazak, 2005; Meyler et al., 2010; Pai et al., 2006).

Psychoeducation. Psychoeducational sessions may focus on the nature of the child's illness, the medical treatment plan and the prognosis. Psychologists need to liaise closely with medical colleagues about such issues to minimize ambiguity and confusion about such information. Some families find it helpful to audiotape consultations with the oncologist so that they may replay them repeatedly and clarify important information about the child's condition.

Family work. In family sessions, one part of the psychologist's role is helping families communicate clearly with each other about practical issues and plans related to the child's care. Guidelines for communication training are given in Table 4.2 in Chapter 4. The other part is to help family members process the complex grief-related emotions that occur in response to living in a state of chronic uncertainty about the child's survival. Grief work is discussed in Chapter 24.

Pain and fatigue management. Pain management skills training for medical and dental procedures has been discussed in an earlier section and is appropriate to use in helping youngsters with cancer cope with pain. Programmes that help children engage in graded increases in exercise help overcome treatment-related fatigue. Such programmes may be developed and monitored in collaboration with physiotherapists.

Support group membership. National cancer organizations and many paediatric hospitals have set up self-help support groups for children with cancer and their parents. These groups are invaluable in the support they provide for children and parents, who may become isolated as a result of changes in routines brought about by the illness and by the difficulty many parents have in accepting support from those who have not had first-hand experience of cancer.

Remedial education. Youngsters with cancer may need remedial education to catch up on schoolwork following extensive absences during their treatment. They may also require remedial tuition to compensate for learning difficulties that have developed as a result of treatment.

Summary

Abdominal pain, headaches, polysymptomatic somatization and MUSs; chronic fatigue syndrome; preparation for anxiety-provoking medical and dental procedures; and adjustment to chronic illness are among the more common somatic complaints referred to clinical psychologists. Management of these problems should take account of the development of children's concepts of pain and illness, which is influenced by both cognitive maturity and exposure to illness and pain either personally or within the child's immediate social network. Within DSM and ICD diagnostic systems a number of disorders with somatic complaints as the central concern are classified, chief among these being somatization or somatic symptom disorder. In clinical practice it may be useful to conceptualize the factors involved in the aetiology of any somatic complaint as falling on a continuum from largely psychological to largely physiological and for symptomatology to fall along a similar continuum. The prevalence rate for somatization in children and adolescents is about 10%. Co-morbidity rates for somatization problems with other emotional and behavioural problems vary from 12–20% in community samples and 23–32% in clinical samples with the highest rate of co-morbidity being with anxiety and depression. Reliable prevalence rates for adjustment problems among children with chronic illnesses such as asthma, diabetes, epilepsy and cancer are unavailable.

Biological theories which explain the development of somatic complaints in terms of physiological vulnerability to particular illnesses or general adaptation to a build-up of life stress are of special relevance to paediatric clinical psychology. Psychological explanations of somatic complaints have been developed within the psychoanalytic and psychosomatic traditions which emphasize the role of intrapsychic factors and also within the behavioural, cognitive-behavioural, stress and coping, and family systems traditions which place greater emphasis on the role of interpersonal factors.

In assessing somatic complaints particular attention should be paid to certain predisposing, precipitating, maintaining and protective factors. A psychological approach to somatic complaints should ideally be family based and include close liaison with the referring physician so that medical aspects of the case are adequately managed. Psychological consultation should involve careful contracting for assessment, thorough child and family assessment, clear formulation and careful contracting for treatment. Where appropriate, treatment may include psychoeducation, monitoring of symptoms, relaxation skills training, cognitive restructuring, coaching parents in contingency management, relapse management training and arranging membership of a support group. In planning a treatment programme the unique features of the child's somatic complaints should be taken into account.

Exercise 14.1

Fay, an 11 year old girl whose parents separated a year ago, has found that her asthma has become worse over the summer months. She has also found that she develops persistent headaches, a problem she never had in the past. She visits with her mother every week and lives with her father and her older brother. She dislikes her mother's new partner, Kevin. Fay's developmental history is normal. Her asthma was well controlled until she moved house a year ago. There is, however, a family history of both asthma and headaches. Fay has not changed school as a result of the separation but is due to go to secondary school in a few weeks. She will attend a different secondary school than her best friend. Her mood and behaviour are within normal limits and her schoolwork is satisfactory.

Work in teams. Write a preliminary formulation for this case outlining probable predisposing, precipitating, maintaining and protective factors.

Write an assessment plan to check out the validity of the preliminary formulation. State whom you would interview and the lines of interviewing you would follow and any additional assessment procedures you would use.

Exercise 14.2

Role-play the first assessment interview.

Further reading

Roberts, M., & Steele, R. (2009). *Handbook of paediatric psychology* (4th ed.). New York: Guilford.

Further reading for clients

Davis, M., Robbins-Eshelman, E., & McKay, M. (2008). *The Relaxation and Stress Reduction Workbook* (6th ed.). Oakland, CA: New Harbinger.

Website

American Psychological Association's Division 54–Paediatric Psychology website contains information on some of the conditions covered in this chapter: http://www.apa.org/divisions/div54/

Section 4

Problems in adolescence

Chapter 15

Drug misuse

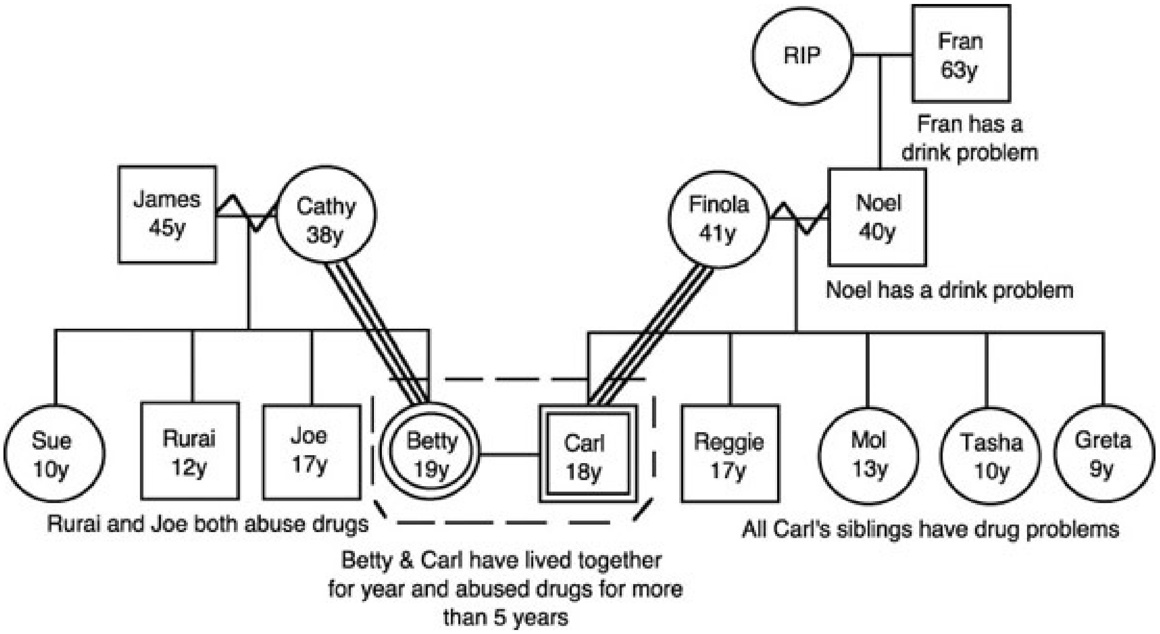
Habitual drug misuse in adolescence is of particular concern to clinical psychologists because it may have a negative long-term effect on the adolescent and an inter-generational effect on their children (Crome et al., 2004; Heath et al., 2008; Kaminer & Winters, 2011). For the adolescent, habitual drug misuse may negatively affect mental and physical health, criminal status, educational status, the establishment of autonomy from the family of origin, and the development of long-term intimate relationships. The children of habitual teenage drug misusers may suffer from drug-related problems such as foetal alcohol syndrome, intrauterine addiction or HIV infection.

Cases of drug misuse vary widely in their presentation. Examples of two very different types of cases are presented in Boxes 15.1 and 15.2. The first is a chronic and complex case of polydrug misuse while the second involves only recreational or experimental use of two drugs. These cases differ along a number of dimensions including the pattern of drug-using behaviour, the types of drugs used, the impact of the drugs used, the overall personal adjustment of the teenager, and the presence of other personal or family-based problems. Clearly drug misuse itself is not always a unidimensional problem and it may occur as part of a wider pattern of life difficulties. The definition and classification of drug misuse is therefore a complex challenge. In this chapter, after considering the classification, epidemiology and clinical features of drug misuse, a variety of theoretical explanations concerning their aetiology will be considered along with relevant empirical evidence. The assessment of drug misuse and a family-based approach to treatment will then be given. The chapter will conclude with some ideas on how to prevent drug misuse in populations at risk.

Box 15.1 A case of polysubstance misuse

Referral. Carl, aged 18, and Betty, aged 19, referred themselves for treatment to an inner-city drug clinic. Both were polydrug misusers and had developed physiological dependence to opiates at the time of referral.

History of the presenting problem. They both had been using drugs since primary school, beginning with cigarettes at the ages of about 10 years as part of peer-group based experimental drug misuse. They stole the cigarettes from their parents who smoked. At 12 they both began drinking and stole beer from Carl's father and later wine from a supermarket. They began using benzodiazepines which they stole from Betty's mother who had been prescribed these for anxiety and sleep problems by the family doctor. They then used cannabis, various solvents, and a variety of stimulants but mainly dextroamphetamines. They progressed to opiates about a year before they first attended the clinic. They had got to the stage where they could no longer finance their drug-taking habits and had a series of financial debts. They requested evaluation for placement on a methadone maintenance programme.



The couple lived together on welfare in a two-room apartment. They financed their drug habits through theft and occasionally prostitution. They were part of a group of drug users who lived in Dublin's inner city. Their whole lifestyle centred around getting and using any drugs they could find, but mainly opiates.

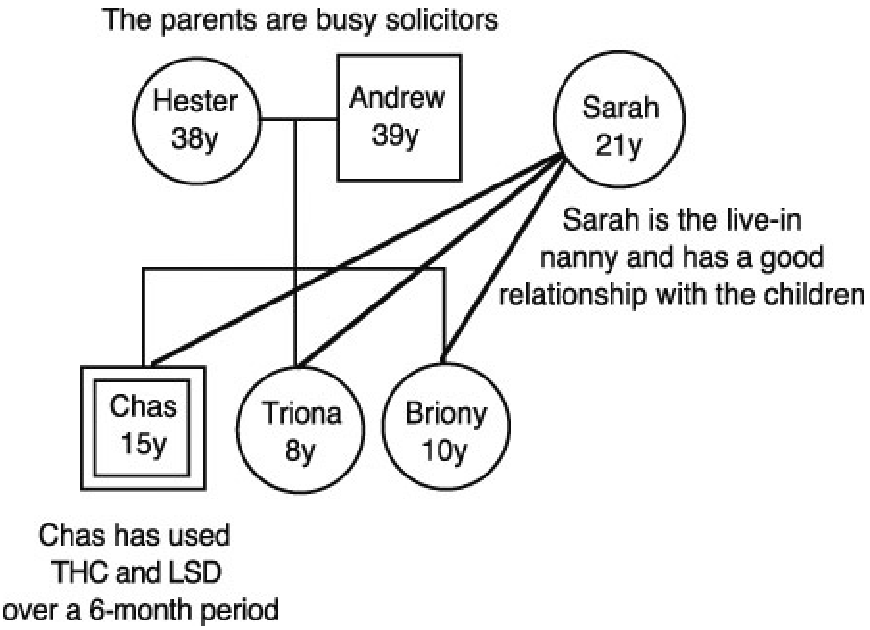
Developmental and family history. Betty and Carl had known each other from childhood. Both had a history of academic and conduct problems at school. Their families were very close but disapproved of the teenage couple when they began living together about 6 months previously. However, in both of the families their mothers were very loyal to them and occasionally gave them financial assistance when it was clear that they were showing withdrawal symptoms and needed a fix. Carl's grandad lived with his parents, and both he and Carl's dad had significant alcohol use problems for which they had been unsuccessfully treated over many years.

Carl had four siblings, all of whom had drug problems. Betty had three siblings, all but one of whom were using drugs. However, Carl and Betty were had the most serious drug problems of the two families. They were both oldest children.

Formulation. Betty and Carl's habitual drug misuse had evolved gradually out of an earlier pattern of pre-adolescent experimental drug misuse. Both were predisposed to develop substance misuse problems because of their family role models, their academic difficulties, their lack of career opportunities and other conduct problems. These problems were maintained at a physiological level by addiction and at a psychosocial level through involvement in a lifestyle which revolved around obtaining and using drugs to the exclusion of almost all other activities.

Treatment. The treatment plan for Betty and Carl involved detoxification followed by residential treatment in a therapeutic community.

Box 15.2 A case of early drug experimentation



Referral. Chas, aged 15, was referred for treatment to a private family therapy institute when his parents found that he had been smoking cannabis with his school friends at a party. He had smoked cannabis a couple of dozen times over a 6-month period and had also taken LSD once. His drug use occurred within the context of a peer group who were experimenting with a range of drugs and associated drug use with listening to and playing music.

Developmental history. His developmental history was unremarkable. He was a fine student in the top stream in his school and had come second in his class in the junior certificate. He was an able sportsman, an avid chess player and musician. He loved to push himself to the limit in all of his leisure activities and was clearly a risk-taker. He had excellent social skills and a wide circle of friends, including a girlfriend with whom he had being having a relationship for about four months. He had particularly good relationships with his parents.

Family history. Neither of his parents smoked or drank alcohol and both were solicitors. They worked long hours, but on a matter of principle would not send Chas to boarding school, believing strongly in the importance of family life. There was a live-in nanny in their house who cared for Chas and his two younger sisters Triona (aged 8 years) and Briony (aged 10 years). The parents were guilt-ridden when they brought the family for the intake interview. Both were of the view that Chas's drug misuse resulted from a failure to be sufficiently available for him during his adolescence due to their heavy work schedule.

Formulation. Chas presented with experimental rather than habitual drug misuse. The onset of the drug misuse was precipitated by availability of the drug, and Chas was predisposed to become involved in experimental drug misuse because of his tendency for sensation-seeking and risk-taking. The drug use was maintained through involvement in a drug-using peer group.

Treatment. In a series of sessions involving Chas and his parents, the risks of abusing various types of drugs were discussed. Other recreational channels into which Chas could direct his energy were explored. As part of this process, Chas and his father arranged a weekend at an adventure sports centre in Donegal together. The parents were supported in setting strict limits on drug use while Chas lived in their house. In later sessions the focus moved to Chas's career plans.

Classification

In DSM-5 (APA, 2013) and ICD-10 (WHO, 1992), substance-related and addictive disorders cover the following categories of drugs: alcohol; caffeine; cannabis; hallucinogens (including phencyclidine (or angel dust)); inhalants; opioids; sedatives, hypnotics and anxiolytics; stimulants; and tobacco. In DSM-5 a distinction is made between substance use disorders (described in Table 15.1) and substance-induced disorders (described in Tables 15.2 and 15.3). Substance-induced disorders include intoxication, withdrawal and other substance-induced mental disorders. Intoxication refers to the effects of drugs that occur immediately after they are taken, whereas withdrawal refers to the effects of drug unavailability after habitual use. Other substance-induced mental disorders are sub-classified in DSM-5 by symptomatology as psychotic, bipolar, depressive, anxiety, obsessive-compulsive, sleep, sexual dysfunction, delirium, and neurocognitive substance-induced disorders. In ICD-10 distinctions are made between intoxication, harmful use, dependence, withdrawal, withdrawal with delirium, psychotic disorder and amnesic syndrome. The harmful use, dependence and withdrawal categories in ICD-10 cover all of the diagnostic guidelines in the DSM-5 substance use category, as can be seen from Table 15.1. The ICD-10 intoxication, withdrawal with delirium and psychotic disorder categories are similar to the intoxication, delirium disorder and psychotic disorder categories in DSM-5. Cases obtaining an ICD-10 amnesic syndrome diagnosis would obtain a DSM-5 diagnosis of neurocognitive disorder. Amnesic syndrome includes Korsakoff's syndrome which is characterized by memory loss, confabulation, lack of insight, and personal neglect caused by a lack of thiamine, and typically occurs in people with chronic alcohol dependence (Kopelman et al., 2009). DSM-5 also includes a hallucinogen-persisting perception disorder to cover 'flashbacks' associated with the use of hallucinogens, particularly LSD (Lerner et al., 2002).

Epidemiology

Illegal drug use across the lifespan is common. In an Irish national survey of over 8,000 15–64 year olds in 2002 the lifetime prevalence of illegal drug use was 19% (National Advisory Committee on Drugs and the Drug and Alcohol Information and Research Unit, 2004). In a UK national survey of over 9,000 11–15 year olds in 2001, the lifetime prevalence for illegal drug use was 29% (National Centre for Social Research and the National Foundation for Educational Research, 2002). In both surveys cannabis was the most commonly used drug and prevalence was highest amongst older male teenagers.

Experimentation with drugs in adolescence is common (Chung & Martin, 2011; Frischer et al., 2004; Griffin, 2010; Heath et al., 2008). Major US and UK surveys concur that by 19 years of age approximately three-quarters of teenagers have drunk alcohol; about half have tried cigarettes and cannabis; and about a fifth have tried other street drugs such as solvents, stimulants, hallucinogens or opiates. Five to ten per cent of teenagers under 19 have drug problems serious enough to require clinical intervention.

Drug use reaches its peak in the early twenties and most young adults 'mature out' of substance use as they approach their thirties (Jochman & Fromme, 2010). This partly occurs because persistent drug use is incompatible with role changes such as employment, marriage and parenthood that occur in the twenties. Better outcomes occur in cases where there is no co-morbid psychopathology; an easy temperament; low levels of sensation-seeking and impulsivity; good social problem-solving skills; positive family and school relationships; a longer time in treatment; engagement in post-treatment aftercare; development of negative attitudes to drug use and positive health-oriented values; and involvement with non-drug-using peers in the post-treatment period (Catalano et al., 2011; Chung & Martin, 2011; Jochman & Fromme, 2010).

Table 15.1 Diagnosis of substance use disorders

DSM-5	*ICD-10*
Substance use disorder A problematic pattern of substance use leading to clinically significant impairment or distress as manifested by at least 2 or more of the following occurring within a 12-month period: 1. Substance is taken in larger amounts or over a longer period than was intended. 2. There is a persistent desire or unsuccessful efforts to cut down or control substance use. 3. A great deal of time is spent in activities necessary to obtain the substance or recover form its effects. 4. Craving or a strong urge to use the substance. 5. Recurrent substance use resulting in a failure to fulfil major role obligations at work, school or home. 6. Continued substance use despite having persistent or recurrent social or interpersonal problems caused or exacerbated by the effects of the substance. 7. Important social, occupational or recreational activities are given up or reduced because of substance use. 8. Recurrent substance use in situations in which it is physically hazardous. 9. Substance use is continued despite knowledge of having a persistent or recurrent physical or psychological problem that is likely to have been caused or exacerbated by	**Harmful use** A pattern of psychoactive substance abuse that is causing harm to health. The damage may be physical (as in cases of hepatitis from the self-administration of injected drugs) or mental (e.g. episodes of depressive disorder secondary to heavy consumption of alcohol). The fact that the pattern of use of a particular substance is disapproved of by a culture or may have led to socially negative consequence such as arrest or marital arguments is not in itself evidence of harmful use. **Dependence syndrome** A cluster of physiological, behavioural and cognitive phenomena in which the use of a substance or a class of substances takes on a much higher priority than other behaviours that once had greater value. Three or more of the following in a 12-month period: (a) A strong desire or sense of compulsion to take the substance. (b) Difficulty in controlling substance taking behaviour in terms of onset, termination or levels of use. (c) A physiological withdrawal state when substance use has ceased or been reduced as evidenced by: the characteristic withdrawal syndrome for the substance; use of the substance to avoid withdrawal symptoms. (c) Evidence of tolerance such that increased doses of the substance are required in order to achieve the effects originally produced by lower doses. (e) progressive neglect of alternative pleasures or interests because of psychoactive substance use, increased amount of time necessary to obtain or

substance use. 10. Tolerance as defined by either (a) A need for markedly increased amounts of the substance to achieve intoxication or the desired effect. (b) A markedly diminished effect with continued use of the same amount of the substance. 11. Withdrawal as shown by either of the following (a) Characteristic withdrawal syndrome for the substance. (b) The substance (or a substitute) is taken to relieve or avoid withdrawal symptoms.	take the substance or to recover from its effects. (f) Persisting with substance use despite clear evidence of overtly harmful consequences such as harm to the liver through excessive drinking’ depressive mood states consequent to periods of heavy substance abuse, or drug-related impairment of cognitive functioning. **Withdrawal state** A group of symptoms (specific to the substance) occurring after prolonged and/or high-dose use of the substance. Withdrawal symptoms are relieved by further substance use.

Note: In this table DSM-5 (APA, 2013) diagnostic guidelines are given, not diagnostic criteria. DSM-5 contains specific diagnostic criteria for substance use disorders involving alcohol, caffeine, cannabis, hallucinogens (phencyclidine and others), inhalants, opioids, sedatives, hypnotics, anxiolytics, stimulants and tobacco. The material in the column headed ICD-10 is a summary of the clinical description and diagnostic guidelines for harmful drug use, drug dependence and withdrawal state. For the full official WHO clinical descriptions and diagnostic guidelines for this disorder see WHO, 1992, pp. 74–78.

Table 15.2 Clinical features of substance-induced disorders listed in DSM-5 and ICD-10

Clinical condition	*Clinical features of the condition*
Intoxication*	Clinically significant problematic behavioural or psychological changes, and substance specific signs or symptoms, that developed shortly after substance use, not attributable to another disorder or medical condition
Withdrawal*	The development of a substance specific syndrome (specified for main classes of substances in Table 15.3) due to cessation of prolonged substance use which causes clinically significant distress or functional impairment, not attributable to another disorder or medical condition
Psychotic disorder*	Hallucinations and delusions
Bipolar disorder	Elevated expansive or irritable mood with or without depressive mood or markedly diminished pleasure or interest in almost all activities

Depressive disorder	Depressed mood or markedly diminished interest or pleasure in almost all activities
Anxiety disorder	Prominent anxiety or panic attacks
Obsessive-compulsive disorder	Obsessions, compulsions, skin-picking, hair-pulling or other bodily-focused repetitive behaviour
Sleep disorder	A prominent, severe disturbance of sleep (includes insomnia, daytime sleepiness, parasomnia or a mixed type)
Sexual dysfunction disorder	Clinically significant disturbance in sexual dysfunction (includes impaired desire, impaired arousal, impaired orgasm or sexual pain)
Delirium disorder	Disturbance of attention (reduced ability to direct, focus, sustain and shift attention) and awareness (reduced orientation to the environment); may occur during intoxication or withdrawal.
Neurocognitive disorder	Significant cognitive decline from previous level of performance in one or more cognitive domains (complex attention, executive function, learning and memory, language, perceptual-motor and social cognition); in ICD-10, neurocognitive disorder affecting memory is referred to as amnesic disorder and includes Korsakov's syndrome
Hallucinogen-persisting perception disorder	Following cessation of use of a hallucinogen, re-experiencing one or more of the perceptual symptoms that were experienced while intoxicated by the hallucinogen (geometric hallucinations, false perceptions of movement in the peripheral visual field, flashes of colour, intensified colours, trails of images of moving objects, positive after images, halos around objects and objects appearing larger or smaller than they are; this disorder is colloquially referred to as flashback and is associated with LSD use

Note: All disorders are listed in DSM-5 (APA, 2013). *Only disorders with an asterisk are listed in ICD-10 (WHO, 1992, 1996).

Table 15.3 Intoxication and withdrawal syndromes and substance-induced disorders for substances listed in DSM-5

Substance	*Intoxication syndrome*	*Withdrawal syndrome*	*Substance-induced disorders*
	Inappropriate sexual or aggressive behaviour; mood lability; impaired judgement; slurred speech;	Withdrawal involves autonomic hyperactivity; hand tremor; insomnia; nausea and vomiting;	Alcohol-induced disorders include alcohol-induced psychotic,

Alcohol	incoordination; unsteady gait; nystagmus; impairment of attention and memory; stupor or coma	visual, tactile or auditory hallucinations or illusions; psychomotor agitation; anxiety; generalized tonic-clonic seizures	bipolar, depressive, anxiety, sleep, sexual dysfunction, delirium and neurocognitive disorders
Caffeine	Restlessness; nervousness; excitement; insomnia; flushed face; diuresis; gastrointestinal disturbance; muscle twitching; rambling flow of thought and speech; tachycardia or cardiac arrhythmia; period of inexhaustibility; psychomotor agitation	Withdrawal involves headache; marked fatigue or drowsiness; dysphoric mood, depressed mood or irritability; concentration difficulties; flu-like symptoms (nausea, vomiting, or muscle pains	Caffeine-induced anxiety and sleep disorders
Cannabis	Impaired motor co-ordination; euphoria; anxiety; sensation of slowed time; impaired judgement; social withdrawal; conjunctival infection; increased appetite; dry mouth;	Withdrawal involves irritability, anger or aggression; nervousness or anxiety; sleep difficulty; decreased appetite or weight loss; restlessness; depressed mood;	Cannabis-induced psychotic, anxiety, sleep and delirium disorders

	tachycardia	physical symptoms (abdominal pain, shakiness, sweating, fever, chills or sweating)	
Phencyclidine (angel dust)	Belligerence; assaultiveness; impulsiveness; unpredictability; psychomotor agitation; impaired judgment; nystagmus; hypertension or tachycardia; numbness or diminished responsiveness to pain; ataxia; dysarthria; muscle rigidity; seizures or coma; hyperacusis	No withdrawal syndrome	Phencyclidine-induced psychotic, bipolar, depressive, anxiety and delirium disorders
Other hallucinogens	Subjective intensification of perception; depersonalization; derealization; illusions; hallucinations; synaesthesias; anxiety or depression; ideas of reference; fears of losing one's mind; paranoid ideation; impaired judgement; pupillary dilation; tachycardia; sweating; palpitations; blurring of vision; tremors; incoordination	No withdrawal syndrome	Other hallucinogen-induced psychotic, bipolar, depressive, anxiety and delirium disorders, and hallucinogen-persisting perception disorder
Inhalants	Belligerence; assaultiveness; apathy; impaired judgment; dizziness; nystagmus; incoordination; slurred speech; unsteady gait; lethargy; depressed reflexes; psychomotor retardation; tremor; muscle	No withdrawal syndrome	Inhalant-induced psychotic, depressive, anxiety, delirium and neurocognitive

	weakness; blurred vision; stupor; coma; euphoria		disorders
Opioids	Initial euphoria followed by apathy; dysphoria; psychomotor agitation or retardation; impaired judgement; drowsiness or coma; slurred speech; impairment of attention and memory	Withdrawal involves dysphoric mood; nausea and vomiting; muscle aches; lacrimation or rhinorrhoea; pupillary dilation, piloerection or sweating; diarrhoea; yawning; fever; insomnia	Opioid-induced depressive, anxiety, sleep, sexual dysfunction and delirium disorders
Sedatives, hypnotics and anxiolytics	Inappropriate sexual or aggressive behaviour; mood lability; impaired judgment; slurred speech; incoordination; unsteady gait; nystagmus; impairment of attention and memory; stupor or coma	Withdrawal involves autonomic hyperactivity; hand tremor; insomnia; nausea and vomiting; visual, tactile or auditory hallucinations or illusions; psychomotor agitation; anxiety; grand mal seizures	Sedative-, hypnotic- and anxiolytic-induced psychotic, bipolar, depressive, anxiety, sleep, sexual dysfunction, delirium and neurocognitive disorders
	Euphoria or affective blunting; sociability; hypervigilance; interpersonal sensitivity; anxiety, tension or anger; stereotyped behaviour; impaired judgement;	Withdrawal involves dysphoric mood; fatigue;	Stimulant-induced psychotic,

Stimulants	tachycardia or bradycardia; pupillary dilation; elevated or lowered blood pressure; perspiration or chills; nausea or vomiting; evidence of weight loss; psychomotor retardation or agitation; muscular weakness, respiratory depression, chest pain, or cardiac arrhythmias; confusion; seizures; dyskinesia; dystonia; coma	vivid unpleasant dreams; insomnia or hypersomnia; increased appetite; psychomotor retardation or agitation	bipolar, depressive, anxiety, obsessive-compulsive, sleep, sexual dysfunction and delirium disorders
Tobacco	None	Withdrawal involves irritability, frustration and anger; anxiety; difficulty concentration; increased appetite; restlessness; depressed mood; insomnia	Tobacco-induced sleep disorder

Note: Substance use–related intoxication and withdrawal syndromes are listed in DSM-5 (APA, 2013) but not ICD-10 (WHO, 1992, 1996).

About one-third of adolescents who use drugs progress to chronic drug misuse or dependence (Catalano et al., 2011). Risk factors in multiple domains (discussed in the section on assessment and listed in Figure 15.1) are associated with the progression from experimental drug use to harmful misuse or dependence. The greater the number of risk factors, the higher the probability of developing serious drug problems.

Clinical features

Because of the heterogeneity of states, stages and types of drug misuse, outlining a concise set of salient clinical features is problematic. However, some guidelines may be offered on the behavioural, physiological, affective, perceptual, cognitive and interpersonal features deserving attention in the assessment of cases of substance misuse (Heath et al., 2008; Kaminer & Winters, 2011; Scheier, 2010). These are summarized in Table 15.4.

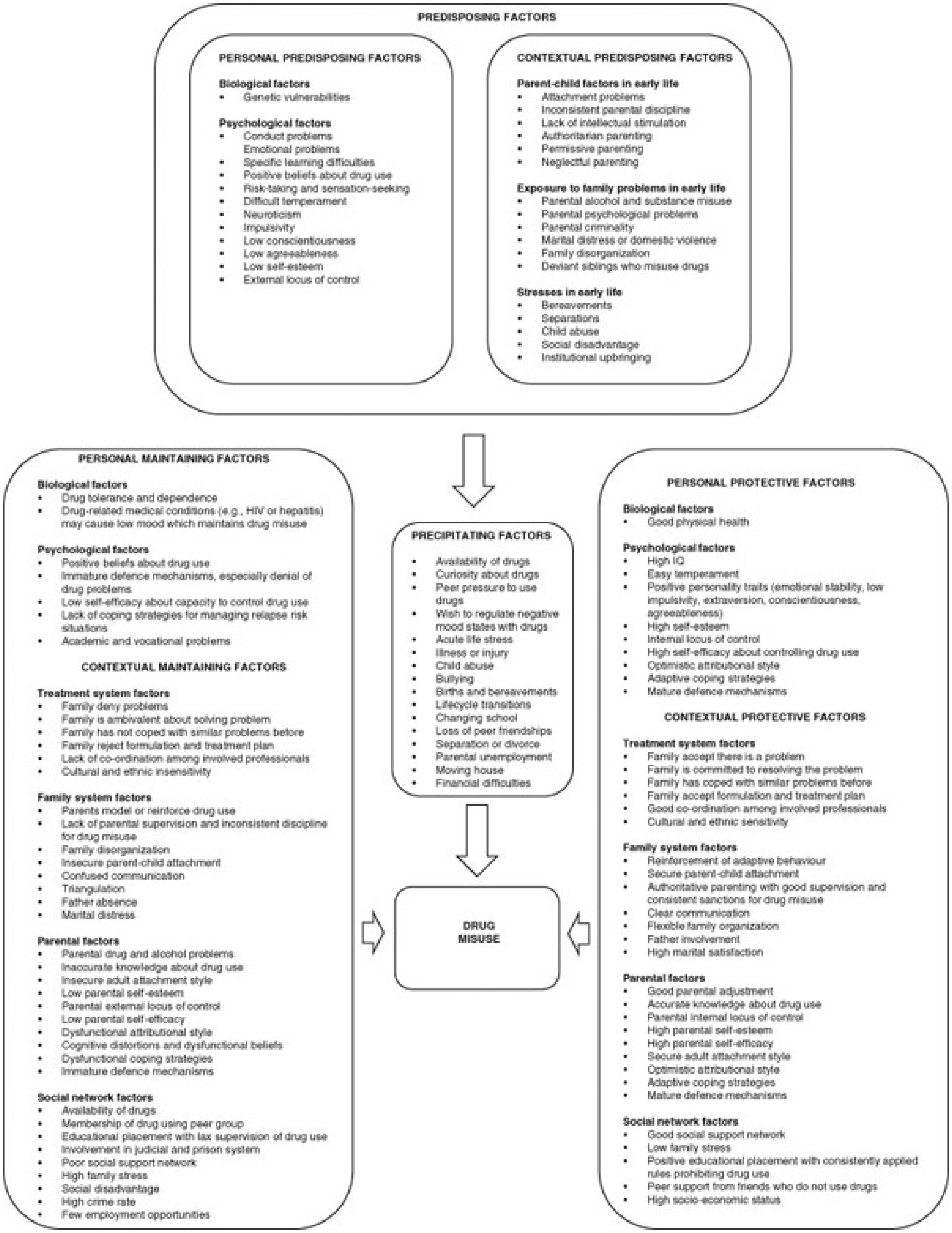


Figure 15.1 Factors to consider in adolescent drug misuse

Table 15.4 Clinical features of drug misuse

Domain	*Features*
	Drug-using behaviour

Behaviour	• Age of onset • Duration of drug misuse • Frequency of use • Range of substances used • Amount used • Change in pattern over time **Context of drug-using behaviour** • People present • Locations • Times • Modes of administering the drug (oral, nasal or injection) • Physiological state (during withdrawal) • Affective state (positive or negative) • Beliefs about ability to control drug use
Physiological effects	**Intoxication** • Physical problems due to hyperarousal (e.g. arrhythmias or dehydration) • Physical problems due to hypoarousal (e.g. stupor) **Following intoxication** • Exhaustion • Dehydration • Sleep and appetite disturbance • Sexual dysfunction **Withdrawal** • Nausea, vomiting, muscle aches and discomfort following opioid use • Sleep and appetite disturbance following stimulant use • Seizures following sedative use **Long-term medical complications** • Poisoning and overdose • Infections including hepatitis and HIV • Liver and kidney damage
Affect	**During intoxication** • Fear and anxiety due to unexpected effects of drugs (particularly hallucinogens) **Following intoxication and during withdrawal** • Depressed mood • Irritability and anger • Anxiety
Perception	**During intoxication** • Hallucinations (with hallucinogens and some stimulants) **Following intoxication**

	• Brief flashbacks and protracted psychotic states (with hallucinogens and some stimulants)
Cognition	• Impaired cognitive functioning • Declining academic performance
Interpersonal adjustment	• Adolescent-parent conflict • Adolescent-teacher conflict • Induction into drug-using peer sub-culture • Social isolation • Conflict with juvenile justice system • Conflict with health care system

Drug misuse is associated with a wide variety of behaviour patterns. These patterns may be described in term of the age of onset, the duration and frequency of drug use, and the range and amount of substances used. Thus useful distinctions may be made between adolescents who began using drugs early or later in their development; between those who have recently begun experimenting with drugs and those who have a chronic history of drug misuse; between daily users, weekend users, and occasional users; between those that confine their drug misuse to a limited range of substances such as alcohol and cannabis and those that use a wide range of substances; and between those who use a small amount and those who use a great deal of drugs. Chronic and extensive daily polydrug misuse with an early onset is associated with more difficulties than experimental, occasional use of a limited number of drugs with a recent onset. The former usually entails a constricted drug-focused lifestyle and multiple associated physical and psychosocial problems whereas the latter does not. A consistent finding is that only a minority of youngsters progress from experimental to habitual drug misuse and from the use of a single legal drug to multiple legal and illegal drugs. However, most polydrug users began with early use of ‘gateway’ drugs: nicotine, alcohol and cannabis.

Behavioural patterns of drug misuse evolve within specific contexts. Drug-using behaviour often comes to be associated with particular locations, times, modes of administering drugs, physiological and affective states, control beliefs and social situations. With recreational, experimental drug use, weekly oral drug-taking at peer-group gatherings while in a positive mood state may occur and young people may have strong beliefs that they are in control of their drug-taking behaviour. With habitual drug use, solitary daily injections to prevent withdrawal and alleviate negative mood may occur. This type of drug use may be accompanied by strong feelings of being unable to control the frequency of drug use or to cut down on the amount taken.

Negative physiological features of drug use may be grouped into those associated with intoxication, those that follow intoxication, those associated with withdrawal following the development of dependence, and medical complications which arise from drug misuse.

Stimulants (such as amphetamines and cocaine) and hallucinogens (such as LSD) lead to physiological changes associated with increased arousal such as tachycardia and blood pressure changes. In cases of extreme intoxication cardiac arrhythmias and seizures may occur. On the other hand, extreme intoxication following the use of alcohol, sedatives, solvents and opioids leads to physiological changes associated with reduced arousal such as drowsiness, stupor and coma. Withdrawal from dependence-producing stimulants entails significant disruption of sleep and increased appetite. Withdrawal from sedatives and alcohol is particularly dangerous because grand mal seizures may occur as part of a syndrome of autonomic hyperactivity. Withdrawal from opioids leads to a syndrome characterized by nausea, vomiting, diarrhoea and muscle aches. There are a wide variety of medical complications associated with drug misuse and these range from injuries sustained while intoxicated, to liver or kidney damage due to the toxicity of substances used, to infections including hepatitis and HIV arising from non-sterile injections. With all street drugs there is a risk of death by intentional or accidental overdose or poisoning due to impurities in the drug.

A central reason for many forms of drug use is to pharmacologically induce a pleasant affective state. It is therefore not surprising that for many drugs, including alcohol, stimulants, hallucinogens, and opioids elation or euphoria is a central feature of initial intoxication. With sedatives, in contrast, intoxication leads to a relaxed state. Many polydrug misusers refer to drugs by their primary mood-altering characteristics. Thus, a distinction is made between *uppers* and *downers*, and particular cocktails of drugs or sequences of drugs are used to regulate mood in particular ways. Negative mood states typically follow intoxication for most classes of drugs. This is particularly true for drugs such as opioids or cocaine that lead to tolerance and dependence. The intense negative mood states which characterize withdrawal syndromes associated with such addictive drugs motivate habitual drug use. The health problems, financial difficulties and psychosocial adjustment problems that evolve as part of habitual drug use may also contribute to frequent and intense negative mood states and paradoxically motivate further drug use to alleviate negative affectivity. Negative mood states typically include some combination of depression, anxiety and anger.

At a perceptual level, some types of drugs, but particularly hallucinogens, lead to pronounced abnormalities during intoxication and withdrawal. In the current decade widely used hallucinogens include MDMA (known as Ecstasy or E), PCP (known as angel dust) and LSD (known as acid). The hallucinations and perceptual distortions that occur during intoxication are not always experienced as pleasant. In some situations they lead to great distress. Brief flashbacks or enduring psychotic states which involve hallucinations and perceptual distortions may occur following intoxication and these invariably are experienced as distressing.

With respect to cognition, alcohol and most street drugs lead to impaired concentration, reasoning and judgement during intoxication and withdrawal. Long-term regular drug misuse in many instances leads to chronic impaired cognitive functioning. The nature, extent and reversibility of this impairment varies depending upon the pattern of drug misuse. With teenagers, the impaired cognitive functioning associated with regular drug use may lead to a decline in academic performance.

Drug use may have a negative impact on interpersonal adjustment. Within the family, drug use often leads to conflict or estrangement between adolescents and their parents. At school, drug use may lead to conflict between the adolescent and teachers both because of declining academic performance and because of anti-social behaviour such as theft or aggression associated with drug misuse. Young people who use drugs within a peer-group situation may become deeply involved in a drug-oriented sub-culture and break ties with peers who do not use drugs. Some teenagers develop a solitary drug-using pattern and become increasingly socially isolated as their drug use progresses. Within the wider community, drug-related anti-social behaviour such as aggression, theft and selling drugs may bring youngsters into contact with the juvenile justice system. Drug-related health problems and drug dependency may bring them into contact with the health service. Conflict between drug users and health care professionals may arise in situations where young people expect to be offered prescribed drugs (such as methadone) as a substitute for street drugs (such as heroin) and this does not occur.

Drug misuse often occurs with other co-morbid psychological problems including conduct disorder, ADHD, specific learning difficulties, mood disorders, anxiety disorders, sleep disorders, psychosexual disorders, psychosis and bulimia. In ‘dual diagnosis’ cases, the relationship between these co-morbid psychological problems and drug use is complex (Phillips et al., 2010). Any or all of them may precede drug use and contribute in some way to the development of drug-using behaviour. In addition, drug use may precipitate or maintain some of these other psychological problems. This is reflected in the long list of DSM-5 substance-induced disorders given in Table 15.2 and 15.3. For example, the use of cannabis and hallucinogens may precipitate the onset of psychosis. Chronic polydrug misuse may lead to learning difficulties and chronic alcohol use can lead to neurocognitive disorder. Amphetamine usage may lead to anxiety problems and OCD symptoms. Drug dependence may lead to chronic conduct problems such as assault and theft. Negative drug-related experiences such as losses and related accidents may lead to depression which in turn may lead to further drug use. Drug use is also an important risk factor for suicide in teenagers.

Theories

Explanations for drug misuse fall broadly into seven categories. First, biological theories focus on specific genetic predisposing factors; temperamental attributes that are known to be strongly genetically determined; and the role of neurobiological mechanisms in development of drug misuse, tolerance and dependence. Second, intrapsychic deficit theories point to the importance of personal psychological vulnerabilities in the development of drug-using behaviour patterns. Third, cognitive-behavioural theories underline the significance of certain learning processes in the genesis of drug problems. Fourth, family systems theories emphasize the importance of parental drug-using behaviour, parenting style and family disorganization in the development of drug misuse. Fifth, sociological theories of drug misuse highlight the aetiological role of deviant peer-group membership, drug availability, and social disadvantage. Sixth, multiple risk factor theories propose that a range of personal and contextual factors contribute to the aetiology of drug misuse. Finally, change process theories offer explanations for how recovery from drug misuse occurs. Some of clinically useful theoretical formulations which fall into these seven categories are listed in Table 15.5.

Biological theories

Biological formulations point to the role genetic predisposing factors in drug misuse; the association between temperamental attributes that are known to be strongly genetically determined and drug-taking behaviour; and the neurobiological mechanisms involved in the development of tolerance and drug dependence.

Genetic hypothesis. Genetic theories, which propose that a predisposition to addiction is inherited, are partly supported by the findings of twin and adoption studies (Hasin & Katz, 2010; Kendler et al., 2012). These show that a predisposition to drug and alcohol misuse and dependence is moderately heritable, particularly in males, but that genetic influences on experimentation and recreational drug use are less pronounced. Over half of the variance in the genetic predisposition to drug, alcohol and nicotine misuse is shared and not drug-specific. However, genetic factors do influence individual differences in sensitivity to and tolerance for specific drugs. For example, some males are genetically predisposed to developing alcohol problems and that the characteristic that is transmitted may be a low physiological and subjective response to alcohol (Schuckit, 1994).

Table 15.5 Theories of drug misuse

Type of theory	*Explanatory variables*	*Hypotheses*	*Interventions*
	Genetic factors	A predisposition to addiction is inherited.	Treatment emphasizes the disease model of drug use and the importance of abstinence as a treatment goal (e.g. NA and AA).
		Difficult temperament, high risk-taking and	Help youngsters with difficult temperaments

Biological theories	Temperament	low harm-avoidance predispose youngsters to drug misuse.	and risk taking tendencies to refocus their energy into demanding and risky pro-social leisure or work activities.
	Neurobiology of tolerance and dependence	For certain classes of drugs such as opioids, cocaine and alcohol, neurobiological changes in the reward system occur with habitual drug use that leads to tolerance, dependence and withdrawal, and this maintains further drug misuse.	Include detoxification in treatment programmes for youngsters who have developed dependence and offer methadone maintenance as a substitute for opioids.
Intrapsychic deficit theories	Addictive personality	Particular personality traits predispose young people to engage in drug use.	Help youngsters with addictive personalities refocus their energy into pro-social leisure or work activities.
	Stress and coping	Early and current life normative stresses and traumatic events including neglect; physical emotional and sexual child misuse; exposure to life threatening violence; involvement in natural disasters; bereavement; relationship difficulties; and work difficulties	Provide psychotherapy to help resolve early life issues and work through current life issues that underpin negative affective states.

	lead to distressing intrapsychic states. Drugs are used as an avoidant coping strategy to pharmacologically suppress or regulate these distressing intrapsychic states.	
Academic failure	Children who are unable to achieve in school do not develop a strong commitment to achieving academic goals and turn to drug misuse as an alternative lifestyle.	Provide school curriculum appropriate to the youngsters ability level and a participative ethos that includes youngsters and their parents in school activities.
Identity formation	Participation in a drug-using subculture is one of a wide range of lifestyles explored in search of an adult identity and autonomy from parental control.	Work with parents and youngsters to facilitate individuation and explore alternatives to drug-taking as a route to autonomy.
Operant conditioning	Drug-taking behaviour is maintained initially by positive reinforcement associated with mood-elevating effects of drugs and later (in the case of dependence-producing drugs)	Arrange for detoxification so drugs are not required for their negative reinforcement value. Provide reinforcement for alternatives to drug-using

		by negative reinforcement, where drugs prevent withdrawal symptoms.	behaviours (e.g. A-CRA).
Cognitive-behavioural theories	Classical conditioning	Certain cues (CS) in the environments of opioid addicts elicit withdrawal, because in the past they have been associated with withdrawal symptoms (UCS).	In cue exposure treatment, expose the youngster to withdrawal-eliciting cues and reinforce them for not engaging in drug-taking behaviour.
	Cognitive-behavioural therapy (CBT)	Drug-use behaviours and related urges, cravings, beliefs and expectations about the risks and benefits of drug use and the degree to which drug use can be controlled are learned through classical and operant conditioning and cognitive learning processes.	Motivational interviewing to facilitate engagement in CBT; CBT skills training programme; and relapse prevention.
Family systems theories	Parental drug misuse	Adolescent drug misuse is caused or maintained by observation of parental drug use, poor parenting skills (such as lack of supervision and consistent consequences for drug use) and	Provide family therapy (FFT, MSR, MDFT, BSFT) to improve parenting skills and family organization. Provide inpatient or community-based treatment for parents or place the child in treatment foster care away from deviant

		family disorganization.	parental role models.
Sociological theories	Deviant peer-group membership	Membership of a peer group in which drug misuse is an accepted behaviour leads to the development of positive attitudes to drug misuse and to drug-using behaviour.	Treatment in a therapeutic community where the rejection of drug misuse is part of the therapeutic community culture.
	Drug availability	Lenient policies legislation and law-enforcement practices about teenage use of nicotine, alcohol and street drugs increases the probability of drug misuse.	Make drug-related legislation stricter and enforce laws more vigorously, or focus limited resources on harm reduction.
	Social disadvantage	Neighbourhoods characterized by poverty, low socio-economic status, high population density and high crime rates create a context within which drug misuse can flourish.	Parent, family, school, vocational and community support and development programmes.
Multiple risk factor theories	Accumulation of risk factors	The greater the number of personal and contextual risk factors, the greater the risk of drug misuse.	Develop multi-systemic intervention programmes which target multiple factors that maintain drug misuse.
		Recovery involves	

Theories of recovery and relapse	Process of change	progression through stages of pre-contemplation, contemplation, preparation, action and maintenance. Addictive behaviour is maintained by factors at five levels: situational, conscious cognitive, interpersonal, family systems and intrapsychic conflict.	In the early stage of change provide support; in the middle stages facilitate belief system exploration; and in the later stages provide consultancy on behavioural change. Target the systemic levels that will maximize recovery.
	PRIME theory of motivation and addiction	Drug use is influenced by motivational state which is unstable. Adolescents' plans and evaluations influence their drug use through motives, and motives influence drug use through impulses which are determined by non-conscious processes (such as habituation and sensitization, classical and operant conditioning); by conscious processes such as cognitive learning; and by stimuli in the immediate internal and	Treatment capitalizes upon the instability of the motivational system by bolstering the adolescent's motivation to temporarily suppress the forces driving drug use and addressing relevant predisposing factors. This involves modifying relevant emotional or environmental factors such as negative mood states induced by stressful life events, drug availability, peer pressure to use drugs, or family disorganization. Treatment sessions should be scheduled close together so that they have a cumulative effect in altering the adolescent's motivation

		external environment.	to use drugs.

The self-help organization Narcotics Anonymous (NA), which is modelled on Alcoholics Anonymous (AA), has drawn on the genetic hypothesis and supporting evidence to underline the view that addiction is a disease which can be managed but not cured (Narcotics Anonymous, 2008). Within NA it is assumed that this disease is characterized by abnormities of the central nervous system which give rise to uncontrollable urges, cravings and loss of control over drug-using behaviour. According to NA, complete abstinence and regular attendance at NA self-help meetings are essential for managing the disease of addiction. NA self-help meetings are convened and attended by other recovering drug users. Within these meetings a 12-step programme is pursued. The 12 steps of Narcotics Anonymous are set out in Table 15.6. In NA meetings, addicts invoke spiritual help to manage their addiction, and new members are teamed up with a sponsor to whom they can turn for support when they are tempted to relapse. The 12-step approach was developed in the US in 1935 by Bill Wilson, an alcoholic New York stockbroker, and Dr Robert Smith, an alcoholic physician. Their approach, and the international self-help organization which they founded (AA) were based on their own experiences of recovery using principles of the Oxford Group, a non-denominational Christian organization (Jaffe & Kelly, 2011). NA derives from this movement. Long-term, regular attendance at NA meetings is incorporated into some residential treatment programmes for adolescent drug users and is the mainstay of long-term aftercare in many such programmes. The Minnesota Model is a widely used example of this practice. It integrates the 12-step approach with group and family therapy (Winters et al., 2000). There is evidence from a few treatment outcome studies for the effectiveness of such programmes for adolescents recovering from drug dependence. Up to 53% of young people who participate in these programmes remain abstinent compared with 27% of those who do not (Jaffe & Kelly, 2011). Evidence for a simple disease model proposed by NA is lacking. Adolescents who use drugs are a heterogeneous group, only one-third of whom go on to develop harmful drug use (Catalano et al., 2011). Multiple social, psychological and biological factors are implicated in the aetiology of ongoing harmful drug use within this sub-group. There is no evidence for an underlying unitary genetically transmitted disease process. Also, the disease model cannot explain the fact that a proportion of very severe drug users mature out of their addiction in middle age (Jochman & Fromme, 2010).

Table 15.6 The 12 steps of Narcotics Anonymous

Step	*Principle*
Step 1	We admitted we were powerless over our addiction and that our lives had become unmanageable.
Step 2	

	We came to believe that a power greater than ourselves could restore us to sanity.
Step 3	We made a decision to turn our will and our lives over to god *as we understood him.*
Step 4	We made a searching and moral inventory of ourselves.
Step 5	We admitted to God, to ourselves and to other human beings the exact nature of our wrongs.
Step 6	We were entirely ready to have God remove all these defects of character.
Step 7	We humbly asked him to remove our shortcomings.
Step 8	We made a list of all persons we had harmed, and became willing to make amends to them all.
Step 9	We made direct amends to such people whenever possible, except when to do so would injure them or others.
Step 10	We continued to take personal inventory and when we were wrong, promptly admitted it.
Step 11	We sought through prayer and meditation to improve our conscious contact with God *as we understood him* praying only for knowledge of his will for the power to carry that out.
Step 12	Having had a spiritual awakening as a result of these steps, we tried to carry this message to addicts, and to practice these principles in all our affairs.

Note: Adapted from Narcotics Anonymous (2008), p. 17.

Temperament hypothesis. The temperament hypothesis holds that youngsters who develop drug and alcohol problems do so because they have particular temperamental characteristics which are partially biologically determined that predispose them to developing poor self-control. Thus, they are apt to engage in a range of risky behaviours including drug use. In support of this hypothesis, difficult temperament in early childhood, sensation-seeking, a low level of harm-avoidance and low self-control in adolescence have consistently been related to teenage drug use (Wills & Ainette, 2010). Youngsters with these temperamental characteristics engage in dangerous novel experiences and risky rule-breaking behaviour of which drug misuse is just one example. Other related risky behaviours include driving fast cars or motorbikes, playing high-contact sports, fighting and theft. Treatment programmes influenced by this position may aim to train youngsters in self-control skills so that they can regulate their tendencies to pursue novel and dangerous experiences including intoxication. Alternatively they may help these adolescents to refocus their energy into demanding and risky pro-social leisure or work activities. In some cases participation in group residential programmes where youngsters are challenged to take risks and master skills such as horse riding, sailing or mountain climbing may be effective, although this is still a controversial approach to treatment (Becker, 2010). There is little evidence for the effectiveness of wilderness or adventure therapy as a treatment for adolescent drug use. It may be that such programmes lead to abstinence while young people are engaged in treatment, but the risk of relapse after treatment is high unless the wilderness experience is coupled with evidence-based individual or family interventions during and after the wilderness experience. A problem with wilderness therapy, common to all group-based approaches, is that it runs the risk of contagion effects, where groups of adolescent drug users on such programmes reinforce each other's positive attitudes towards drugs (Dishion & Dodge, 2005).

Neurobiological theories of tolerance and dependence. Neurobiological theories of addiction, tolerance and dependence propose that two main systems are central to the development of harmful drug use and addiction (Hutchison, 2010). The first is the incentive motivation network or reward system, which includes the mesolimbic dopamine pathway involving the ventral tegmental area and the nucleus accumbens. The second is the control network or inhibitory system which includes areas of the pre-frontal cortex. The reward system motivates people to seek things essential for survival such as food, water and sexual mates. This is the system that is activated when positive reinforcement occurs, which will be described later. The inhibitory system helps people consider the consequences of impulsively seeking these sorts of things without regard to possible dangers of doing so. When adolescents repeatedly use drugs such as nicotine, alcohol, cocaine or heroin, the reward system of the brain that is normally activated to release dopamine by survival-relevant stimuli such as food, water and sexual mates is 'hijacked' into responding as if drugs were required for survival. With repeated use, drugs and cues associated with their use take on increasingly greater motivational significance – a process known as incentive sensitization – and drug use becomes compulsive. Eventually with chronic use of addictive drugs such as heroin or cocaine, people come to find drug use more rewarding than anything else, and other activities become far less rewarding. Through a combination of classical conditioning and incentive sensitization, intense motivation to use drugs (which is experienced as urges or cravings) comes to be activated by cues such as situations or people associated with drug use, and causes relapse even after long periods of abstinence. Loss of control over drug use is associated with greater activation of the brain's reward system relative to the control network or inhibitory system when exposed to cues associated with drug use.

Adolescence is a critical period of addiction vulnerability due to the characteristics of the nervous system during this neurodevelopmental stage (Chambers et al., 2003). During adolescence there is a relative over-functioning of the incentive motivation network or reward system and under-functioning of the control network or inhibitory system. Adolescence is associated with increased impulsivity, risk-taking and novelty-seeking, and with experiencing novel stimuli as more strongly reinforcing than in adulthood. From an evolutionary perspective, this increased risk-taking and novelty-seeking may have been adaptive because it motivated adolescents to explore novel behaviours associated with adult roles. Unfortunately, this neurodevelopmental stage renders adolescents vulnerable to experimenting with drugs because drug-taking is risky and provides novel experiences. This neurodevelopmental stage also renders adolescents vulnerable to addiction because the positive effects of drugs are experienced as more reinforcing than at other stages of the lifecycle.

As adolescents mature into adulthood, the inhibitory system's effect on the reward system increases, and consequently risk-taking behaviour decreases. This process is facilitated by pruning of cortical synapses and increased myelination particularly in the frontal and temporal lobes. Pruning of excess synaptic connections and myelination leads to an increase in the efficiency of neural circuitry between the inhibitory system and the reward system. There is some evidence that pruning and myelination is adversely affected by frequent drug use in adolescence, which in turn may account for greater vulnerability to addiction during the teenage years (Lubman & Yücel, 2008).

Neurobiological theories also propose that habitual drug use leads to long-term drug-induced changes in the brain's reward system (Shaham & Hope, 2005). This neuroadaptation accounts for the phenomena of tolerance, dependence, withdrawal and high rate of relapse among recovered addicts. With tolerance, a gradual increase in drug dosage is required for intoxication to occur. This increase in dosage in turn leads to physiological dependence and the related phenomenon of unpleasant or hazardous withdrawal symptoms when drug-taking ceases abruptly. An attempt to avoid this withdrawal syndrome maintains further drug use. Extensive pharmacological evidence supports the hypothesis that for certain classes of drugs tolerance, dependence and withdrawal occur. In particular these phenomena are associated with habitual use of alcohol, opioids, stimulants (such as cocaine) and sedatives but not hallucinogens (such as (cannabis, MDMA, PCP and LSD; Kaminer & Marsch, 2011).

Neurobiological theories have led to the inclusion of detoxification in treatment programmes for adolescents who have developed dependence. These theories have also informed the development of pharmacological interventions such as methadone maintenance programmes (Kaminer & Marsch, 2011). In such programmes, youngsters who have developed opioid dependency are prescribed a daily dose of methadone as a substitute for street opioids. Methadone prevents withdrawal symptoms from occurring, but does not give the high associated with heroin. People on methadone can function quite well socially and occupationally and avoid the dangers of procuring and using street drugs. Methadone maintenance programmes typically include routine monitoring of drug use through urinalysis and adjunctive counselling. They are effective with a proportion of opioid dependent adolescents.

Intrapsychic deficit theories

Many hypotheses account for drug misuse in terms of specific intrapsychic vulnerabilities and deficits. Among the more clinically influential are those that invoke personality traits, stress and coping processes, learning difficulties and the challenges of identity formation to explain the development of drug misuse.

Addictive personality. The idea that people are predisposed to develop drug problems or addiction because they have particular personality traits or attributes is often referred to as the addictive personality hypothesis. This is quite similar to the temperament hypothesis mentioned earlier, although the addictive personality hypothesis also assumes that environmental factors play a role in the development of personality. There is some support for the addictive personality hypothesis. For example, meta-analyses of data on personality traits of adult drug and alcohol users showed that high levels of neuroticism and impulsivity and low levels of conscientiousness and agreeableness characterize adult substance use disorders (Coskunpinar et al., 2013; Kotov et al., 2010).

Stress and coping through self-medication. Stress and coping formulations propose that drugs are used to alleviate negative affective states, and specific drugs are chosen because of their unique effects. This theory is often referred to as the self-medication hypothesis (Grunberg et al., 2011; Khantzian, 2003). From this perspective drug use is conceptualized as a strategy for coping with negative mood states or psychological disorders such as depression, post-traumatic stress disorder (PTSD) or psychosis that have arisen in response to a range of current or past adversities such as abuse, neglect, bereavement, armed combat or problematic parent-child relationships. There are many versions of this broad hypothesis. For example, psychoanalytic theorists have argued that low levels of care and high levels of criticism from primary caregivers in early childhood may lead to insecure attachment, unmet dependency needs, harsh superego development and low-self esteem. Drugs are used, according to this formulation, to alleviate the negative mood states that arise from these detrimental formative experiences (Wieder & Kaplan, 1969). Another variant of this position proposes that where adolescents have suffered sexual abuse or exposure to other traumatic events, drugs may be used to deal with the symptoms of post-traumatic stress disorder or depression that have arisen from these adverse experiences. A third variant is that teenagers with a genetic vulnerability for psychosis may use drugs to cope with prodromal psychotic symptoms. There is little doubt that in a proportion of cases adolescents use drugs to deal with stress, trauma and related psychopathology. In clinical samples 70–80% of cases have co-morbid substance use and other psychological disorders (Kaminer, Ford & Clark, 2011). However, in many cases drug use is not preceded by stress or psychopathology. Rather stress and psychological difficulties arise as a result of harmful drug use. Where drug use occurs with co-morbid psychological disorders such as PTSD, depression or psychosis, both the drug-use problem and the co-morbid difficulties require treatment. There is no evidence to suggest that treating co-morbid disorders alleviates drug misuse or addiction.

Response to academic failure. Another intrapsychic deficit which has been suggested to predispose youngsters to developing drug misuse is learning difficulties. According to this position, children who have learning difficulties and who experience academic failure at school do not develop a strong commitment to achieving academic goals and turn to drug use as an alternative lifestyle (Mason, 2010). Interventions which derive from this perspective aim to provide adolescents with a school curriculum appropriate to their ability levels and a participative ethos that includes teenagers and their parents in school activities so as to enhance commitment to academic goals (Griffin & Botvin, 2010).

Identity formation. Erik Erikson (1950, 1968) proposed that during adolescence individuals experiment with multiple roles as part of the process of establishing a stable adult identity. In this sense, lack of a stable identity is a normative intrapsychic deficit in adolescence. From this perspective participation in a drug-using sub-culture is one of a wide range of lifestyles that may be explored during the adolescent's search for adult identity and autonomy from parental control. There is evidence that young people who consolidate their identities in early adulthood engage in less drug use and other risky behaviours than those who have difficulty with identity formation (e.g. Arnett, 2005; Schwartz et al., 2010). Treatment programmes based on this position focus on facilitating individuation and developing alternatives to drug-taking as a route to autonomy and identity formation. The treatment of chronic drug dependence in drug-free therapeutic communities such as Synanon, Daytop and Phoenix House is consistent with this theoretical position (De Leon, 2000). Therapeutic communities facilitate the development of drug-free lifestyles and identities by offering a context within which adolescents can engage in structured community living and therapeutic activities with ex-addicts who have successfully become drug-free. Research on therapeutic communities has shown that they can be effective for a proportion of young adult addicts who are motivated to engage in treatment (De Leon, 2000; Smith et al., 2006). Therapeutic communities are probably not an appropriate intervention for most young adolescents who misuse drugs, who may fare better with family-based interventions (Tanner-Smith et al., 2013).

Cognitive-behavioural theories

Cognitive-behavioural theories focus on the role of classical and operant conditioning and cognitive processes in the maintenance of drug misuse.

Operant conditioning. Operant conditioning and instrumental learning theories propose that drug use is maintained initially by positive reinforcement associated with the mood-elevating effects of drugs and later, in the case of dependence producing substances such as alcohol, cocaine or heroin, by negative reinforcement, where drug use prevents aversive withdrawal symptoms (e.g. O'Brien et al., 1992; Schulteis & Koob, 1996). Treatment programmes based on this formulation include initial detoxification so drugs lose their negative reinforcement value and the provision of positive reinforcement for alternatives to drug-using behaviours.

The Adolescent Contingency Reinforcement Approach (A-CRA) is an evidence-based therapy in which operant conditioning is the central intervention (Dakof et al., 2011; Godley et al., 2001). With A-CRA, therapists work with adolescents and their parents, both alone and in conjoint sessions, to identify reinforcers or rewards which young people value and which will improve the quality of their lives and reduce drug use. The process begins with a functional analysis of both drug-using and pro-social behaviour to identify situations that trigger drug use and pro-social behaviours, and related reinforcers. Adolescents are helped to set goals and plan pro-social activities to improve their quality of life, and with their parents arrangements are made for them to receive reinforcement for doing so. Adolescents and parents engage in communication, problem solving, and relapse management skills training. Homework assignments are set and reviewed in all sessions and drug use is monitored with regular urinalysis testing. A-CRA typically spans about three months of weekly sessions. In a series of trials A-CRA has been found to be effective for adolescents with a range of drug-use problems (Waldron & Turner, 2008).

Classical conditioning. Wikler (1973) has offered an explanation of relapse following detoxification in people who have developed tolerance and dependence using a classical conditioning framework. According to this position, certain conditioned stimuli (CSs) or cues in the environments of drug users elicit withdrawal symptoms and craving (conditioned responses or CRs), because in the past these cues have been associated with withdrawal symptoms which are conceptualized as unconditioned stimuli (UCSs). In cue exposure treatment, based on this formulation, exposure to withdrawal and craving eliciting cues or CSs without engaging in drug-taking leads to extinction of the CRs, particularly cravings. In cue exposure treatment, adolescents enter situations that elicit craving, observe video or audiotapes of such situations, or undergo imaginal exposure to such situations and concurrently use a variety of coping strategies to tolerate their discomfort and avoid drug-taking. There is controversy about the effectiveness of cue exposure treatment and few studies have evaluated it in the treatment of adolescent drug users (Conklin & Tiffany, 2002; Drummond et al., 1995).

Cognitive-behavioural therapy. Cognitive-behavioural therapy models conceptualize adolescent drug misuse as a set of learned behaviours and related cognitions (Kaminer, Spirito & Lewander, 2011). Drug-use behaviours and related urges, cravings, beliefs and expectations about the risks and benefits of drug use and the degree to which drug use can be controlled are assumed to be learned through classical and operant conditioning as well as through cognitive learning processes. Cognitive-behavioural therapy for adolescent drug use involves helping adolescents become motivated to engage in treatment and develop skills and coping strategies to control drug use and avoid relapse. Motivational interviewing or motivational enhancement therapy is often used to engage adolescents in cognitive-behavioural therapy (Barnett et al., 2012; Miller & Rollnick, 2013; Tevyaw & Monti, 2004). This involves having an empathic dialogue with adolescents about the pros and cons of stopping or continuing drug use in a way that creates cognitive dissonance and so motivates the young person to consider engaging in treatment. Relapse prevention is usually incorporated into cognitive-behavioural therapy. This is based on the view that in high-risk situations, drug users who have well-rehearsed coping strategies and use them effectively develop increased self-efficacy beliefs and a decreased probability of relapse (Hendershot et al., 2011). Those who have poor coping strategies are driven to relapse by their low self-efficacy beliefs in their capacity to avoid substance use and their expectations of a euphoric high from drug use. This leads to what Alan Marlatt refers to as the abstinence violation effect (AVE) where guilt and a sense of loss of control predominate (Marlatt & Gordon, 1985). With the AVE people may say to themselves, 'I've relapsed. I've let myself and my family down. I have no control over my drug-taking. There is no point in trying to stop now.' This failure experience in turn leads to an increased probability of a minor slip becoming a major relapse. Results from a series of controlled trials support the effectiveness of cognitive behaviour therapy for adolescent drug use (Kaminer, Spirito & Lewander, 2011; Waldron & Turner, 2008).

Family systems theories

That adolescent drug misuse is caused or maintained by parental drug use, poor parenting skills and family disorganization are some of the more important family systems hypotheses. Empirical studies have established an association between each of these factors and adolescent drug use (Kliewer, 2010). In families where parents use drugs, adolescents may learn drug-using behaviour patterns directly through a process of modelling. They may acquire positive attitudes towards drugs through exposure to their parents' permissive attitudes. Furthermore, parents' drug-using behaviour may compromise their capacity to adequately parent their adolescents. If parents do not jointly establish clear rules prohibiting drug use and consistently apply clear consequences for violating these rules, then adolescent drug use is more likely to occur. Parenting problems may occur within a broad pattern of family disorganization associated with adolescent drug use. The pattern may include parental psychological problems; lack of a clear parental alliance and clear inter-generational boundaries between adolescents and parents; poor family communication, problem-solving and conflict-resolution skills; extreme family enmeshment or disengagement; and difficulty addressing the family lifecycle transitions, especially that of facilitating the gradual development of adolescent autonomy. Within such disorganized families drug misuse may serve an organizing function, since it introduces certain predictable routines into family life and provides a focus for parental concern which may increase family cohesion and prevent parental separation.

Multi-dimensional Family Therapy (MDFT, Liddle, 2010), Functional Family Therapy (FFT; Waldron & Brody, 2010), Brief Strategic Family Therapy (BSFT; Robbins et al., 2010), and Multisystemic Therapy (MST; Henggeler & Schaeffer, 2010) are evidence-based approaches to treating adolescent drug misuse based on systemic theory. All of these approaches involve working directly with adolescents and their parents to improve family functioning as an avenue to reducing adolescent drug misuse. Parents are helped to establish clear rules prohibiting drug use and consistently apply clear consequences for violating these rules. These approaches also facilitate the development of positive family relationships and good family communication, problem-solving and conflict-resolution skills. There is a progression from initial engagement, to becoming drug-free, to addressing family issues associated with fostering adolescent development and autonomy, to disengagement where the emphasis is on planning for relapse prevention. With these family-based approaches, treatment typically involves conjoint family sessions, separate sessions with adolescents and parents, and sessions with involved health, social service and juvenile justice professionals and school staff, as required. Results of controlled trials and meta-analyses show that evidence-based family-oriented approaches are very effective for adolescent drug use problems (Baldwin et al., 2012; Tanner-Smith et al., 2013; Waldron & Turner, 2008). Where parents have very significant substance use problems, it is appropriate to provide inpatient or community-based treatment for parents, and consider placing the child in treatment foster care away from deviant parental role models. Treatment foster care is described in Chapter 22.

Sociological theories

Deviant peer-group membership, drug availability and social disadvantage are the principal variables included in the more important sociological theories of drug misuse.

Deviant peer-group membership. Problem-behaviour theory is an example of a formulation that links drug misuse to deviant peer-group membership. This theory proposes that drug use is one of a series of interrelated problem behaviours which reflect adherence to unconventional attitudes held by a deviant peer group (Catalano et al., 2011; Jessor & Jessor, 1977). Adolescents engage in these behaviours to obtain acceptance from their deviant peer group and for personal excitement. Young people are predisposed to developing problem behaviours if they are alienated from mainstream society. This may be reflected in their weak attachments to parents, their rejection of authority, their valuing independence more than academic achievement, and their lack of religiosity. A wealth of survey data supports this theory (Andrews & Hops, 2010).

Treatment programmes based on the hypothesis that deviant peer-group membership is central to adolescent drug misuse provide residential peer group–based treatment, within the context of a therapeutic community, where the rejection of drug use is part of the therapeutic community's sub-culture. Therapeutic communities as a treatment for drug use have been mentioned earlier in the section on identify formation, where it was noted that they can be effective for a proportion of young adult addicts but may not be appropriate for young adolescents (De Leon, 2000; Smith et al., 2006).

Drug availability. Hypotheses about drug availability suggest that problematic policies, legislation and law-enforcement practices that allow teenagers easy access to nicotine, alcohol and street drugs increase the probability of drug misuse. This type of theory has few treatment implications but suggests that prevention programmes should promote stricter drug-related polices and legislation, and the enforcement of laws affecting availability of nicotine, alcohol and street drugs to teenagers. With respect to gateway drugs (nicotine, alcohol and cannabis), there is controversy over the effectiveness of preventing the use of hard drugs by blocking access to gateway drugs (Degenhardt et al., 2010). With respect to hard drug use, there is considerable evidence that, internationally, drug-control policies and strategies have been very ineffective, and that drug-use policies should focus limited resources not on reducing drug supply but on reducing the harm caused by drug use, that is, harm reduction (Greenfield & Paoli, 2012). Harm reduction refers to policies and practices that aim to reduce the adverse health, social and economic consequences of the use of legal and illegal drugs without necessarily reducing drug consumption. Nicotine replacement treatment, methadone maintenance treatment and needle exchange centres are examples of harm reduction strategies. There is substantial evidence for the effectiveness of harm reduction programmes in reducing adverse consequences of drug use (Logan & Marlatt, 2010).

Social disadvantage. Social disadvantage theories argue that neighbourhoods characterized by poverty, low socio-economic status, high population density and high crime rates create a context within which drug misuse can flourish. This is because drugs offer an escape from the multiple stresses associated with this type of social environment; they are available in these environments; and they are socially sanctioned within a crime-oriented subculture (Catalano et al., 2011; Gardner et al., 2010). Social disadvantage theory entails the view that effective intervention programmes support families, enhance educational and vocational opportunities for young people, and strengthen communities. Evidence from prevention studies supports the effectiveness of parent training programmes during the pre-natal, infancy, childhood and adolescent stages of the lifecycle; school-based and after-school programmes that enhance social and academic competence; vocational programmes that create youth employment opportunities linked to ongoing education; and community-based programmes that strengthen community cohesion and reduce alcohol and drug availability to young people (Catalano et al., 2011).

Multiple risk factor theories

Multiple risk factor theories argue that a range of personal and contextual factors may contribute to the development and maintenance of drug misuse. One such theory, grounded in a thorough review of empirical research on risk factors for drug misuse, has been developed by Catalano et al. (2011). They list 17 risk factors associated with the adolescent, school, family and community for which there is substantial evidence from longitudinal studies and argue that the greater the number of these that are present in any given case, the greater the risk of drug misuse. Individual factors include temperament and genetic predisposition, early and persistent problem behaviours, alienation and rebelliousness, deviant peer-group membership, favourable attitudes towards drug use, and early initiation into drug use. School factors include academic failure beginning in elementary school and lack of commitment to school. Family factors include family drug-taking behaviour, favourable parental attitude towards drug use, family management problems and family conflict. Community factors include availability of drugs, community norms and legislation which favour or do not prevent drug use, much social mobility and lack of stability within the community, low neighbourhood cohesion and community disorganization, and extreme social disadvantage.

It follows from multiple risk factor theory that treatment and prevention programmes should target multiple factors that maintain drug misuse. For both treatment and prevention, available evidence suggests that multi-systemic programmes that target more than one risk factor are probably most effective (Kaminer & Winters, 2011).

Theories of recovery and relapse

Two important theories of drug misuse focus not on aetiology but on the process of recovery. These are Prochaska and DiClemente's (2005) transtheoretical stages of change theory and West's (2006) synthetic theory of motivation and addiction.

Stages of change theory. From an analysis of 24 schools of psychotherapy, Prochaska and DiClemente developed a transtheoretical stages of change model which explains how change occurs in psychotherapy and other contexts (Connors et al., 2013; Prochaska & DiClemente, 2005). In this model it is proposed that in treatment of psychological problems including drug misuse individuals go through a cycle of five stages of therapeutic change: pre-contemplation, contemplation, preparation, action and maintenance. Specific techniques are maximally effective in helping clients make the transition from one stage of change to the next. The techniques, broadly speaking, fall into the categories of support, belief exploration and consulting to behavioural change.

In the pre-contemplation stage, the provision of support creates a climate within which adolescents may ventilate their feelings and express their views about their drug problems and life situation. Such support facilitates movement from the pre-contemplation to the contemplation stage. Facilitating the exploration of beliefs about the pros and cons of modifying drug use, according to the model, may promote movement from the contemplation to the planning stage. Motivational interviewing, mentioned earlier in the section on CBT, facilitates movement from pre-contemplation through contemplation to planning. In the transition from the planning to the action stage, the most useful interventions are helping adolescents examine various action plans for reducing drug use and facilitating the development of an emotional commitment to change. In moving from the action to the maintenance stage, the focus is on helping adolescents integrate positive changes into their lives and avoid or manage relapses.

Prochaska and DiClemente argue that five principal categories of factors are involved in symptom maintenance: situational maintaining factors, maladaptive cognitions, interpersonal conflicts, family conflicts and intrapsychic conflicts. These five factors are hierarchically organized, with earlier factors being more responsive to change than later factors. Effective therapy follows one of three strategies once the person has passed through to the action stage. The first strategy is to target the situations which maintain drug use and only shift to the cognitive level or higher levels if no change occurs. The second strategy is to focus on the family systems level which is the key level within the hierarchy typically involved in maintaining drug use. A third strategy is to target all levels, for example, by offering individual work to alter maladaptive cognitions and intrapsychic conflicts associated with drug use; peer group work and social skills training to target interpersonal conflicts or deviant peer-group membership; and family work to address family conflicts and drug misuse maintaining family interaction patterns.

The central prediction of this model is that stage-specific interventions will be more effective than those that are not stage specific. Little research has been conducted to test this hypothesis with adolescent drug users, and results from studies of adults are mixed (West, 2006). However, the theory has been very influential clinically and has informed the development of procedures such as harm reduction (Marlatt & Witkiewitz, 2010) and motivational interviewing (Macgowan & Engle, 2010) where the aim is not to promote abstinence or reduction in drug use but to prevent drug-related harm and facilitate movement towards planning and action stages. Needle exchanges and provision of safe injection sites are examples of harm reduction interventions. Motivational interviewing was described earlier in the section on CBT.

West's synthetic theory of motivation and addiction. Robert West (2006), a major critic of the stages of change model, proposed that addiction is not a matter of conscious choice and progression through invariant stages but a reward-seeking behaviour over which a person has lost control. It arises from abnormalities in the motivational system, many of which are not conscious, or abnormalities in the physical and social environment that are conducive to prioritizing drug use. Abnormalities in the motivational system may be caused by drug use, for example, withdrawal symptoms and the acquired drive to seek drugs to alleviate these, or they may be due to predisposing factors such as negative affectivity or impulsivity. West explains drug addiction in terms of his synthetic theory of motivation which is also referred to as PRIME theory. PRIME is an acronym for Plans, Responses, Impulses and inhibitory forces (felt as urges), Motives (felt as wants or needs), and Evaluative beliefs. According to PRIME theory, adolescents' conscious plans and evaluations influence their drug use through motives, and motives influence drug use through impulses which are determined in large part by non-conscious processes. The motivational system which underpins drug use is influenced by past experiences through non-conscious processes such as habituation and sensitization, classical and operant conditioning, and conscious processes such as cognitive learning. However, it is also influenced by stimuli in the immediate internal and external environment. Therefore, West (2006) argues that an adolescent's motivation to use drugs is inherently unstable and changes from moment to moment. It does not progress through stages of change as proposed by Prochaska and DiClemente (2005). Treatment based on this model capitalizes upon the instability of the motivational system by bolstering the adolescent's motivation to exercise restraint or temporarily suppress the forces driving drug use and addressing relevant predisposing factors. This may be done, for example, by modifying relevant emotional or environmental factors such as negative mood states induced by stressful life events, drug availability, peer pressure to use drugs, or family disorganization. According to West's model, treatment sessions should be scheduled close together so that they have a cumulative effect in altering the adolescent's feelings, impulses and beliefs that motivate them to use drugs. West's formulation integrates a vast body of animal and human research on the psychology, sociology and neurobiology of addiction, and offers an alternative to the over-simplified but intuitively appealing stages of change model described earlier. However, it has not yet led to the development of treatments for adolescent drug use.

Assessment

In addition to the routine assessment procedures outlined in Chapter 4, assessment of adolescents or children with drug-related problems should cover the clinical features and diagnostic criteria outlined in Tables 15.1–15.4 and the aetiological and protective factors outlined in Figure 15.1. A number of psychometric instruments that may be a useful adjunct to a clinical interview are listed in Table 15.7. In addition, referral for a full physical examination and regular urinalysis for the duration of assessment and treatment are essential. Physical examination allows for the identification and treatment of drug-related physical complications and to determine if conditions such as hepatitis or HIV infection are present. Awareness of the extent of physical problems may have an important motivating effect for the youngster and family to become fully engaged in treatment. Regular urinalysis provides reliable information on relapse which is critical for effective treatment of habitual but not experimental drug misusers.

In assessing the families of youngsters with drug problems, child protection issues should be kept in mind. Parents who misuse drugs act as deviant role models for their children and expose their children to a variety of other life stresses. These include psychological unavailability due to intoxication or drug-related illnesses, especially AIDS; neglect and unresponsive parenting; poverty due to the costs of maintaining their drug misuse; exposure to aggression associated with bad debts or anger regulation problems while intoxicated or in withdrawal; exposure to criminal activities such as prostitution; and physical child misuse due to poor frustration tolerance. Teenagers who misuse drugs and have children may require assessment from a child protection viewpoint, and reference should be made to Chapters 19–21 in conducting such assessments. These chapters may also be consulted in cases where the parents of referred children are engaged in habitual drug misuse that compromises the child's parenting environment. A summary of predisposing, precipitating, maintaining and protective factors to consider in the assessment of cases of drug misuse is presented in Figure 15.1 (American Academy of Child and Adolescent Psychiatry, 2005; Crome et al., 2004; Kaminer & Winters, 2011; NICE, 2007b; Scheier, 2010).

Table 15.7 Psychometric instruments for the assessment of drug misuse

Instrument	*Publication*	*Comments*
Adolescent Alcohol Involvement Scale (AAIS)	Mayer, J., & Filstead, W. (1979). The Adolescent Alcohol Involvement Scale: An instrument for measuring adolescent use and misuse of alcohol. *Journal of Studies in Alcohol, 40*, 291–300.	A 14-item self-report screening inventory for adolescent alcohol use.
Drug Abuse Screening Test for Adolescents (DAST-A)	Martino, S., Grilo, C., & Fehon, D.C. (2000). Development of the Drug Abuse Screening Test for Adolescents (DAST-A). *Addictive Behaviours, 25*, 57–70.	A 27-item self-report screening test for adolescent drug misuse.
Personal Experience Screening Questionnaire (PESQ)	Winters, K. (1991). *Personal Experience Screening Questionnaire.* Los Angeles: Western Psychological Services. http://www.wpspublish.com/	A 40-item screening instrument which is a very brief version of the Personal Experience Inventory.
Personal Experience Inventory (PEI)	Winters, K., & Henly, G. (1989). *Personal Experience Inventory*. Los Angeles: Western Psychological Services. http://www.wpspublish.com/	A 276-item self-report inventory that assesses drug use, risk factors, personal, family- and school-related adjustment for use in treatment planning.
Adolescent Diagnostic	Winters, K., & Henly, G. (1989). *Adolescent Diagnostic Interview*. Los Angeles: Western Psychological Services.	A structured interview which yields DSM diagnoses and indices social and

Interview	http://www.wpspublish.com/	cognitive functioning and life stress.
Drug Use Severity Inventory (DUSI)	Tarter, R. (1990). Evaluation and treatment of adolescent substance abuse: A decision tree method. *American Journal of Drug and Alcohol Abuse, 16*, 1–46.	A 149 self-report instrument yields a profile which highlights treatment needs.
Teen Addiction Severity Index (TASI)	Kaiminer, Y. Wagner, E. Plummer, E., & Seifer, R. (1993). Validation of the Teen Addiction Severity Index (T-ASI): Preliminary findings. *American Journal of Addictions, 3*, 250–254.	An extensive interview that yields information on drug misuse, family, peer group, school/employment, psychiatric and legal status.
Timeline Follow Back (TLFB)	Sobell, L. C., & Sobell, M. B. (1992). Timeline Follow-Back: A technique for assessing self reported alcohol consumption. In R. Litten & J. Allen (Eds.), *Measuring alcohol consumption: Psychosocial and biological methods* (pp. 41–72). Clifton, NJ: Humana Press.	TLFB is a calendar-based interview of alcohol and drug use. A visual calendar is used to help the respondent chart life events to aid recall of substance use.
Global Appraisal of Individual Needs (GAIN)	Dennis, M. (1999). *Global Appraisal of Individual Needs (GAIN): Administration guide for the GAIN and related measures.* Bloomington, IL: Chestnut Health Systems. http://www.chestnut.org/li/gain/gadm1299.pdf	A very comprehensive interview to assess substance use.

Predisposing risk factors

Both personal and contextual factors may predispose youngsters to developing drug misuse. Personal predisposing factors include genetic factors, pre-existing conduct problems or emotional problems; specific learning difficulties, attention problems and academic difficulties; favourable beliefs about drug use; and a propensity for risk-taking or sensation-seeking. Difficult temperament, neuroticism, impulsivity, low conscientiousness, low agreeableness, low self-esteem and an external locus of control may also predispose youngsters to engage in drug misuse. Early onset of drug misuse is a personal risk factor for later persistent drug misuse. Contextual predisposing factors deserving particular attention include a poor relationship with parents often associated with attachment problems or a problematic parenting style; little supervision from parents and inconsistent discipline; parental drug misuse; and family disorganization with unclear rules, roles and routines. Parental criminality or psychological problems, marital discord or the presence of deviant siblings who misuse drugs within the family home are other possible contextual predisposing factors. Early life stresses may render youngsters vulnerable to developing drug problems. Included here are abusive experiences, bereavements, separation, social disadvantage and an institutional upbringing.

Precipitating factors

Adolescent drug misuse in Western society tends to follow a progression from early use of cigarettes and alcohol, to problem drinking, to the use of hallucinogenic drugs (such as cannabis) to polydrug misuse. Not all adolescents progress from one stage to the next. Progression is dependent upon the presence of precipitating factors and predisposing risk factors. However, at all stages availability of drugs is a precipitating factor when coupled with some personal wish such as the desire to experiment to satisfy curiosity; the wish to conform to peer pressure; or the wish to control negative mood states. These negative mood states may arise as a response to recent life stresses such as child misuse, bullying, changing schools, loss of peer friendships, parental separation, bereavement, illness, injury, parental unemployment, moving house or financial difficulties. Involvement in a deviant peer group, parental cigarette and alcohol use and minor delinquent activities are the main risk factors which precede initial cigarette and alcohol use. Progression to problem drinking is more likely to occur if the adolescent develops beliefs and values favouring excessive alcohol use. A further progression to the use of hallucinogenic drugs (such as cannabis) requires the availability of such drugs and exposure to peer use. A host of predisposing risk factors, listed in the previous section, predict the progression towards the final step of polydrug misuse, and the more of these factors that are present the more likely the adolescent is to progress to polydrug misuse.

Maintaining factors

Once a pattern of drug misuse has become established it may be maintained by both personal and contextual factors. At a personal level, drug misuse may be maintained by physical and psychological tolerance and dependence and by a wish to regulate negative mood states that arise from medical, vocational, economic and psychosocial complications of drug misuse. Thus drug misuse may be maintained by depressed mood or anxiety arising from hepatitis, HIV infection, lack of money, relationship problems, academic and vocational difficulties, involvement in the justice and prison system for drug-related crimes and so forth. Positive beliefs about drugs, denial of drug-related problems, low self-efficacy about the capacity to control drugs and a lack of strategies to cope with potential relapse situations may also maintain drug misuse.

At a contextual level drug misuse may be maintained by parental modelling of drug misuse, expressing positive attitudes about drug misuse and reinforcement of drug misuse through failing to consistently prohibit drug use, and failing to adequately supervise youngsters. These difficulties are more likely to occur in disorganized families where there is inconsistent discipline especially for drug misuse, lack of attachment between parents and children, and confused communication. Marital discord and limited involvement of the father in routine care and supervision of the adolescents may also maintain adolescent drug misuse. Often this involves a process of triangulation. Here, parental conflicts are detoured through the child, so the parents chronically and inconclusively argue about how to manage the drug misuse rather than resolving their dissatisfactions with each other and then working as a co-operative co-parental team. In these instances the adolescent may engage in a covert alliance with one parent against the other.

Such patterns of parenting and family organization may be partially maintained by parent personal psychological difficulties. These include parents' personal drug and alcohol problems, inaccurate knowledge about adolescent drug misuse and its management, insecure adult attachment style, low self-esteem, an external locus of control, low self-efficacy, a dysfunctional attributional style, cognitive distortions, immature defences and poor coping strategies. All of these factors may compromise parents' resourcefulness in managing their children's drug misuse.

Factors in adolescents' community and social network may also maintain their drug misuse. Adolescents are more likely to continue to use drugs if they live in an area with a high crime rate where there is high drug availability; where they are members of a deviant peer group involved in drug use; and where they attend schools with lax supervision of drug use and limited home–school liaison about management of drug problems. Drug misuse may also be maintained by high levels of family stress, limited support, social disadvantage and few employment opportunities, since these features may deplete parents' and children's personal resources for dealing constructively with drug problems.

Within the treatment system, a lack of co-ordination and clear communication among involved professionals including family physicians, paediatricians, psychiatrists, drug treatment counsellors, nurses, teachers, social workers, probation officers, psychologists and so forth may maintain adolescents' drug problems. It is not unusual for various members of the professional network to offer conflicting opinions and advice on the nature and management of drug problems to adolescents and their families. These may range from viewing the adolescent as mentally or physically ill and therefore not responsible for drug-using behaviour on the one hand, to seeing the youngster as healthy but deviant and deserving punitive management on the other. Where co-operation problems between families and treatment teams develop, and families deny the existence of the problems, the validity of the diagnosis and formulation or the appropriateness of the treatment programme, then the adolescent's difficulties may persist. Treatment systems that are not sensitive to the cultural and ethnic beliefs and values of the youngster's family system may maintain drug misuse by inhibiting engagement or promoting dropout from treatment and preventing the development of a good working alliance between the treatment team, the youngster and his or her family. Parents' lack of experience in dealing with similar problems in the past is a further factor that may compromise their capacity to work co-operatively with the treatment team and so may contribute to the maintenance of the adolescent's difficulties.

Protective factors

The probability that a treatment programme will be effective is influenced by a variety of personal and contextual protective factors. It is important that these be assessed and included in the formulation, since it is protective factors that usually serve as the foundation for therapeutic change. At a biological level, physical health and the absence of drug-related conditions such as HIV infection or hepatitis may be viewed as protective factors which may contribute to recovery. Where health problems are present, these may lead to demoralization and treatment dropout. A high IQ, an easy temperament, positive personality traits (emotional stability, low impulsivity, extraversion, conscientiousness, agreeableness), high self-esteem, an internal locus of control, high self-efficacy about controlling drug use, and an optimistic attributional style are all important personal protective factors. Other important personal protective factors include mature defence mechanisms and functional coping strategies, particularly good problem-solving skills and a capacity to make and maintain non-deviant peer friendships.

Within the family, reinforcement of adaptive drug-free behaviour, secure parent–adolescent attachment, and authoritative parenting with good supervision and consistent sanctions for drug misuse are central protective factors, particularly if they occur within the context of a flexible family structure in which there is clear communication and high marital satisfaction and both parents share the day-to-day tasks of caring for and supervising the adolescent.

Good parental adjustment and accurate parental knowledge about drug misuse and its management are protective factors. Where parents have an internal locus of control, high self-efficacy, high self-esteem, a secure adult attachment style, an optimistic attributional style, mature defences and functional coping strategies they are better resourced to manage their adolescent's difficulties constructively.

Within the broader social network the lack of availability of drugs, high levels of support, low levels of stress and membership of a high socio-economic group are all protective factors. Where adolescents families are embedded in non-deviant social networks that provide a high level of support and place few stressful demands on family members, then it is less likely that parents' and children's resources for dealing with drug-related problems will become depleted. A well-resourced educational placement may also be viewed as a protective factor. Educational placements where teachers have sufficient time and flexibility to attend home–school liaison meetings and offer close supervision to prevent drug-taking at school contribute to positive outcomes for adolescents with drug-related problems.

Within the treatment system, co-operative working relationships between the treatment team and the family and good co-ordination of multi-professional input are protective factors. Treatment systems that are sensitive to the cultural and ethnic beliefs and values of the youngster's family are more likely help families engage with and remain in treatment and foster the development of a good working alliance. Families are more likely to benefit from treatment when they accept the formulation of the problem given by the treatment team and are committed to working with the team to resolve it. Where families have successfully faced similar problems before they are more likely to benefit from treatment, and in this sense previous experience with similar problems is a protective factor.

Formulation

Following assessment a formulation should be constructed that integrates and systematizes salient features from assessment interviews, psychometrics and physical examinations into a coherent explanation for the aetiology and maintenance of the youngster's drug problem. A clear position should be reached on whether the drug problem reflects transient experimentation or a more entrenched pattern of habitual drug misuse. Predisposing, precipitating and maintaining factor should be specified and important strengths or protective factors noted. Co-morbid problems should be mentioned and their association with the drug problem explained. In light of the formulation, a series of treatment options and the preferred treatment plan should be specified. This plan should aim to modify the youngster's pattern of drug misuse primarily by addressing significant maintaining factors and building on personal and family strengths.

Treatment

Treatment of adolescent drug misuse should aim to engage the adolescent and parents or carers in therapy, motivate them to use therapy to work towards reducing adolescent drug use, and address the young person's personal, family and school-related difficulties. Reviews of treatment outcome studies show that family-oriented approaches such as MDFT, FFT, BSFT, MST and A-CRA, and individual or group approaches such as CBT, combined with motivational interviewing are effective interventions for adolescent drug use (Baldwin et al., 2012; Dakof et al., 2011; Kaminer & Winters, 2011; Rowe, 2012; Tanner-Smith et al., 2013; Waldron & Turner, 2008). Literature reviews consistently show that for adolescents living with their parents, evidence-based family-oriented treatment programmes are the treatment of choice for drug problems because they have the best outcome, involve the young person's family as a treatment resource, and modify family problems that may be maintaining adolescent drug use (e.g. Rowe, 2012; Tanner-Smith et al., 2013). Family-based approaches have been shown to be effective for engaging adolescent drug users and their networks in therapy, for reducing drug misuse, for improving associated behaviour problems, for improving overall family functioning and for preventing relapse. Where there are significant obstacles to involving families in treatment, CBT combined with initial motivational interviewing is the intervention of choice. Motivational interviewing facilitates engagement in therapy, and through CBT young people develop skills to reduce drug use, communicate, solve problems and deal with relapses. Where adolescents have developed physiological dependence, psychological interventions may be combined with initial detoxification or with long-term pharmacological interventions such as methadone maintenance for opioid dependence (Kaminer & Marsch, 2011). For chronic drug problems with a high risk of relapse, long-term aftercare though regular attendance at 12-step NA meetings may prevent relapse (Jaffe & Kelly, 2011). This overall approach to treatment of adolescent drug use is consistent with international best practice guidelines (American Academy of Child and Adolescent Psychiatry, 2005; Department of Health, 2007; NICE, 2007b).

Family therapy for adolescent drug misuse

Evidence-based family therapy programmes for adolescent drug misuse involve the following processes which, while overlapping, may be conceptualized as stages of therapy (Henggeler & Schaeffer, 2010; Liddle, 2010; Robbins et al., 2010; Waldron & Brody, 2010):

- engagement, problem definition and contracting
- becoming drug-free
- facing denial and creating a context for a drug free lifestyle
- family reorganization
- disengagement.

What follows is an outline of how to work with adolescents and their families using this framework.

The engagement stage

During the engagement phase, the goal is to develop a strong working alliance with a sufficient number of family members to help the adolescent change his or her drug-using behaviour. The engagement process begins with whoever comes for treatment concerned that the adolescent stop using drugs. From their account of the adolescent's drug problem and the pattern of interaction in which it is embedded, other family members who are central to the maintenance of the problems or who could help with changing these problem-maintaining patterns may be identified. The psychologist may then ask about what would happen if these other people attended treatment. This line of questioning throws light on aspects of resistance to engagement in treatment, and may suggest ways to engage resistant family members.

Often those family members who attend initially (for example, the mother, the adolescent with the drug problem or a sibling) are ambivalent about involving other family members in treatment. They fear that something unpleasant will happen if other family members join the treatment process. Adolescents may fear that their parents will punish them. Mothers may fear that their husbands will not support them or that they will punish the adolescent. Fathers may fear that their wives will mollycoddle the adolescent and disregard their attempts at being firm. The task of the psychologist is to frame the attendance of other family members in a way that offers reassurance that the feared outcome will not occur. The seriousness of the problem may always be offered as a reason why other family members will not do that which is feared. So the psychologist may say:

> Joey isn't here. But from what you say, at some level, he is very concerned about this drug problem too, because we all know that there is a risk of death here. Death from overdose, AIDS, or assault is very, very common. Most families I work with are like you and Joey. They put their differences to one side to prevent the death of one of their own. So let's talk about the best way to invite Joey to come in.

The discussion then turns to the most practical way to organize a meeting. This may involve an immediate phone call, a home visit, an individual appointment for the resistant family member outside office hours or a letter explaining that the psychologist needs the family member's assistance to prevent further risk to the drug-abusing adolescent.

In each meeting with each new member of the network, the psychologist adopts a non-blaming stance and focuses on building an alliance with that family member and recruiting them into treatment to help deal with the drug misuse. Many parents are paralysed by self-blame and view family-based treatment as a parent-punishing process. Often this self-blame is heightened as it becomes apparent that patterns of family interaction are maintaining the drug-using behaviour. The psychologist must find a way to reduce blame while at the same time highlighting the importance of the family being engaged in treatment. Here is one way to do this:

> You asked me are you to blame for Sam's addiction. No you are not. Are there things you could have done to prevent it? Probably. But you didn't know what these were. If you

> don’t know this part of Dublin and you park below the bridge and when you go back to your car, there is a dent in it, are you to blame for the dent? No, because you didn’t know its a rough area down there. But the next time, you are responsible, because you know parking there is bad news. Well it’s the same with drug misuse. You’re not to blame for what happened. But you are partly responsible for his recovery. That’s a fact. Drug misuse is a family problem because your child needs you to help recover. You can help him recover. You can reduce the risk of his death. I know you sense this and that’s why you’re here.

The engagement phase concludes when important family members have agreed to participate in a time-limited treatment contract with the goal of the adolescent becoming drug-free.

To engage youngsters and parents in treatment, begin by identifying the youngster’s and parents’ agendas, which may be quite different. Youngsters may wish to be understood and taken seriously, to learn better street survival skills or to resolve parent–adolescent conflicts. Parents may wish their youngsters to stop taking drugs, pursue their education and conform to parental house rules. Concreteness and specificity in identifying such agendas or goals is critical. Assume that youngsters and parents will have difficulty forming a good working alliance and engaging in treatment with very good reason. Youngsters with extensive treatment histories and parents with a history of failing to help their youngster may be wary of being pathologized, judged and misunderstood. Thus, an approach that privileges their viewpoint and the identification of their strengths and potential and de-emphasizes their deficits will facilitate engagement. Engagement of parents is enhanced by allowing ample time to ventilate emotions. This allows parents to feel understood. However, during ventilation, be vigilant for instances where parents express an emotionally charged wish to help their child escape from a drug-abusing lifestyle just one more time. Such expressions may be amplified and expanded as a motivational platform from which parents may become committed to following through on treatment. Engagement of parents is also enhanced through psychoeducation. This involves giving them accurate information on adolescent development, drug misuse and ways in which individual, family, school and peer group interventions can alter drug-taking behaviour.

Becoming street drug–free

Once the family agree to participate in treatment, the psychologist tells the family that for treatment to be effective drug use must stop first, and once that has happened alternatives to a drug based lifestyle may be discussed, not vice versa. If alternatives to a drug-based lifestyle and changes in family relationships are discussed first with the expectation that this will lead to drug use stopping, then treatment will probably fail.

If the adolescent is not physically dependent on drugs, then a date for stopping should be set in the near future and a drug-free period of 10 days after that date set during which the parents take responsibility for round-the-clock surveillance of the adolescent, to both comfort him and prevent drug use. If the adolescent is physically dependent on drugs, plans for detoxification should be made. Home-based detoxification with medical backup may be possible in some cases. Home-based detoxification requires the family to agree to a 24-hour rota to monitor the adolescent and administer medication periodically under medical direction. Alternatively, hospital-based detoxification may be arranged. However, home-based detoxification has the advantage of giving the family a central role in the recovery process. Following home-based detoxification, family members will be less likely to become involved in patterns of behaviour that maintain drug misuse in the future. They will also be less likely to blame the treatment team when relapses occur during the recovery process and more likely to take some responsibility for dealing with these relapses.

In some instances, where opiate-dependent drug misusers are unwilling to become drug-free, participation in a methadone maintenance programme is an alternative to detoxification. Methadone is typically prescribed for people addicted to heroin as an alternative to either detoxification or continued use of street drugs. Family-based treatment in conjunction with methadone maintenance has been shown to lead to a significant reduction in the use of street drugs in comparison with methadone maintenance alone (Stanton & Todd, 1982). However, a problem with methadone maintenance is that drug dependence (albeit prescribed-drug dependence) continues to be central to the adolescent’s lifestyle and to the organization of the family.

Addressing denial and creating a context for a drug-free lifestyle

Where adolescents have developed a drug-oriented identity and lifestyle, participation in self-help programmes such as Nar-Anon is essential. These programmes provide the unique combination of peer support and confrontation required to erode denial that characterizes many adolescents who have become habitual drug users. Such drug users deny their physical and psychological dependence on drugs; the impact of their drug-related behaviour on their emotional and social development; the impact of their drug-related behaviour on their family relationships; and their drug-related crimes.

If access to a self-help group is unavailable, such groups may be set up and facilitated by a psychologist. In this type of group, each member must begin by stating congruently and honestly their experience of being dependent on drugs and not in control of their lives. Members must describe repeatedly and congruently the ways in which their use of drugs has affected their relationships with all significant people in their lives and their evaluation of themselves. They must make an inventory of everyone they have wronged as a result of their drug misuse and make reparation. They must make commitment to an alternative drug-free lifestyle. The role of the facilitator is to encourage group members to confront each other’s denial when they engage in various distortions, minimizations and rationalizations for their drug-related behaviour. The facilitator must also encourage members to support each other when they have shown courage and honesty in owning up to the destructive drug-related behaviour for which they have been responsible.

As group members give up denial and accept the support of the group, unresolved personal issues related to emotional development and identity formation may emerge. These include unresolved grief associated with losses and bereavements or reactions to trauma such as physical or sexual misuse. Guidelines for working with grief and loss are given in Chapter 24. Reactions to trauma are discussed under PTSD in Chapter 12 and child misuse and neglect in covered in Chapters 19–21.

Adolescents who have experimented with drugs or been involved in mild recreational drug use usually do not require group work where the focus is on denial. Rather, they require individual or group work to help them develop assertiveness skills for avoiding peer pressure to engage in further drug use or social anxiety management training to help them deal with social pressure if this underpins their recreational drug-taking.

Family reorganization

The central task in family reorganization is to help the family disrupt the patterns of interaction which have evolved around the adolescent's drug-related behaviours. These drug-related behaviours include obtaining money and resources to get drugs; anti-social actions carried out when under the influence of drugs; and conduct problems such as breaking rules about curfew times, school non-attendance, homework non-completion, theft, destruction of property and so forth. To alter interactional patterns around drug misuse and drug-related deviant behaviour family members must be helped to set very clear, observable and realistic goals both with respect to the adolescent's behaviour and with respect to the parents' behaviour. Broadly speaking, the goals for the adolescent will amount to a conforming to a set of house rules which specify minimum behavioural standards at home. The main goal for the parents will be to retain a parental alliance with respect to enforcing the house rules. Resolving conflict about the precise behaviour expected of the adolescent, the consequences for compliance and non-compliance, and the way in which both parents will work jointly to support each other is a central part of this work. Communication training, problem-solving training and the use of points-based reward systems in the manner described for adolescent conduct disorders in Chapter 10 may be incorporated into this stage of treatment as appropriate

Parents should be asked to err on the side of treating adolescents as somewhat younger than their age in years during the early part of this phase of treatment. They should agree to relax the house rules by negotiation as their adolescents show that they have the maturity to remain drug-free and follow the house rules.

Concurrently, the psychologist should hold a number of sessions with the parents in the absence of the teenager and siblings to help them draw a boundary around their marital system by planning time together without the children. The goal here is to foster mutual support between the parents and to de-triangulate the adolescent who may have been stuck in the position of a go-between with one parent looking to the child rather than their spouse for support.

Disengagement

Once a stable drug-free period has elapsed and new routines have been established within the family which disrupt drug misuse maintaining family patterns, disengagement may occur. Relapse prevention is central to the disengagement process. It involves identifying situations which may precipitate relapse and helping the youngster and family members identify and develop confidence in their coping strategies for managing these. Dangerous situations tend to be those where there is high stress, low mood, lessened vigilance and greater opportunity for drug availability and use. Coping strategies include positive thinking, distraction, avoidance, and seeking social support.

CBT for adolescent drug misuse

Results from a series of controlled trials support the effectiveness of CBT for adolescent drug use (Waldron & Turner, 2008). In practice CBT interventions include motivational interviewing to address young people's ambivalence about controlling drug use or becoming abstinent; CBT skills training to develop the skills to control drug use; contingency management; and relapse prevention to help young people maintain treatment gains (Barnett et al., 2012; Henggeler et al., 2012; McHugh et al., 2010).

Motivational interviewing or motivational enhancement therapy is the main intervention used to facilitate engagement in CBT (Barnett et al., 2012; Miller & Rollnick, 2013). With motivational interviewing the psychologist invites the young person to describe their drug-using behaviour and consider the pros and cons of continued drug use; empathizes with the difficulties associated with both continuing drug use and becoming abstinent; gives normative feedback on the effects of the young person's drug use and options for changing drug-using behaviour; invites the young person to make a decision about changing their drug use; and supports their self-efficacy beliefs about reducing drug use. This is a non-confrontational approach. The psychologist strengthens the therapeutic relationship by empathizing with the young person's perspective and supporting independent, informed decision-making. However, cognitive dissonance is introduced by providing authoritative normative information about the short and long-term effects of continued drug use.

CBT programmes for drug misuse help young people set drug-reduction goals, identify situational cues that elicit urges or cravings to use drugs, plan to reduce contact with deviant drug-using peers, develop skills for drug refusal, and develop strategies for coping with urges and cravings to use drugs in risky situations where they might relapse. These strategies include leaving high-risk situations, seeking social support, or practicing distress tolerance skills including progressive muscle relaxation and visualization (described in Chapter 12) and mindfulness (described in Chapter 16). In CBT for drug misuse, young people are helped to use Challenge-Test-Reward (CTR) skills (described in Chapter 12) to challenge cognitive distortions about drug use such as 'one hit won't do me any harm,' and relapse-related low self-efficacy beliefs such as 'I've relapsed, so now I'm back to regular use.' Skills for managing negative emotions including anxiety, depression and anger without recourse to drug use are also learned in CBT for adolescent drug use. These skills are described in Chapters 12 and 16. CBT programmes for adolescent drug use help young people to develop communication and problem-solving skills, which were described in Tables 4.2 and 4.3 in Chapter 4. These skills are used to increase social support and develop a drug-free lifestyle.

CBT programmes for adolescent drug use also include contingency management to motivate young people to control drug-taking and become abstinent (Godley et al., 2001; Henggeler et al., 2012). Drug-use status is monitored with regular urinalysis. Reinforcement menus of valued goods or experiences are drawn up. Items from reinforcement menus can be obtained by accumulating points which are given for clear urinalysis tests.

Prevention

Many approaches to preventing drug misuse have been shown to be ineffective (Catalano et al., 2011; Essau, 2004; Schinke et al., 1991). These include giving factual information only; giving factual information coupled with anxiety-provoking information or moral appeals; and offering alternative interpersonal or risky activities so that adolescents can get a natural high rather than a drug-induced high. The most promising preventative interventions are school-based skills training programmes coupled with community-based parent training programmes embedded in a multi-agency, multi-professional, community-wide co-operative network (Coughlan et al., 2002; Crome & McArdle, 2004; Midford, 2010; Soole et al., 2008). In the most effective school-based skills training programmes, youngsters are targeted during their pre-teens and are trained in an array of social and interpersonal skills necessary to resist inducements to smoke, drink alcohol or use street drugs. These skills include identifying and avoiding situations where there is a risk of being pressurized into drug misuse; assertiveness skills to resist peer pressure; cognitive skills to resist media persuasion to smoke and drink; interpersonal problem-solving skills to look for alternatives in complex social situations where drugs are being used; communication skills; self-control skills; self-monitoring and self-instructional skills for building confidence; and self-regulation and relaxation skills for reducing tension. These skills are taught through live or videotape demonstration, instruction, rehearsal, feedback, reinforcement and home practice. Parent groups may be run concurrently with school-based skills training. The parents' groups aim to network parents into a cohesive organization, keep them informed of the skills training curriculum in which the children are engaged, and coach them in how to support the children in using the skills taught in the school-based classes. To be maximally effective child-focused skills training and parent training should be conducted within the context of a multi-agency, multi-professional, community-wide co-operative network. Within this network policy and guidelines for practice should be developed to reduce drug availability and treat youngsters who become involved in drug misuse at an early stage. This network should include professionals and representatives from law enforcement, justice, education, health services, social services, probation, child protection, self-help organizations (such as AA and NA) and other relevant agencies within the public and private domains.

Summary

Habitual drug misuse in adolescence is of particular concern to clinical psychologists because it may have a negative long-term effect on adolescents and an inter-generational effect on their children. A conservative estimate is that 5–10% of teenagers under 19 have drug problems serious enough to require clinical intervention. Drug misuse is associated with a wide variety of behaviour patterns which may be described in terms of the age of onset, the duration of drug misuse, the frequency of use, the range of substances used, and the amount used. Physiological features of drug misuse may be grouped into those associated with intoxication, those that follow intoxication, those associated with withdrawal following the development of dependence, and medical complications which arise from drug misuse. At an affective level, negative mood states typically follow the euphoria of intoxication for most classes of drugs. At a perceptual level, some types of drugs, but particularly hallucinogens, lead to pronounced abnormalities during intoxication and withdrawal. With respect to cognition, most street drugs lead to impaired concentration, reasoning and judgement during intoxication and withdrawal. Long-term regular drug misuse in many instances leads to impaired cognitive functioning. Drug misuse may have an impact on interpersonal adjustment leading to family, school and peer group–based difficulties. Drug misuse often occurs with other co-morbid psychological problems including conduct disorder, ADHD, specific learning difficulties, mood disorders, anxiety disorders, schizophrenia and bulimia. The relationship between these co-morbid psychological problems and drug misuse is complex. Explanations for drug misuse have focused on biological predisposing factors, intrapsychic deficits, cognitive-behavioural learning processes, family systems factors, societal factors, multiple risk factors, and change process involved in recovery. Research conducted to test these various theories have led to the identification of biological, psychological and social factors which increase vulnerability to drug misuse, which may precipitate its onset or maintain habitual drug misuse. Because of the complex aetiology of drug misuse a multi-systemic approach to assessment and treatment is essential. Both family therapy and CBT are evidence-based treatments for adolescent drug use. Family therapy programmes progress through a series of stages. These include engagement, becoming drug-free, facing denial and creating a context for a drug-free lifestyle, family reorganization and disengagement. CBT interventions include motivational interviewing to address young people's ambivalence about controlling or drug use or becoming abstinent, CBT skills training to develop the skills to control drug use, contingency management and relapse prevention to help young people maintain treatment gains. Effective prevention programmes involve child-focused skills training and the parent training conducted within the context of a multi-agency, multi-professional, community-wide co-operative network.

Exercise 15.1

Luke is a 15 year old who was caught stealing money from his mother's purse at home. Both of his parents suspect that he wanted the money for drugs. They suspect that he uses cannabis and possibly LSD or E occasionally. Their suspicions are based on his unusual behaviour over the past year, particularly at weekends. Luke is the eldest of three boys. His parents are separated and he lives with his mother three days a week and with his father four days a week. His parents separated about three years ago and have a reasonably good co-parenting relationship. Luke's development has been normal, although he has a specific learning difficulty and so has never done as well as he thinks he should at school. He is a good tennis player but has given that up in the past year. He goes out with his friends every night and comes home late. His parents find him impossible to control. Luke's brothers Ted and Ben both have some conduct problems. Luke's mother Maria works in a supermarket and his dad Shay mends cars in a backstreet garage.

Work in pairs and develop a preliminary formulation and interview plan for intake interview. Specify whom you would invite and what lines of inquiry you would follow.

Exercise 15.2

Assign roles (two interviewers, five family members and the remainder observers) and role-play the intake interview. Refine the preliminary formulation in the light of the information gained in this interview.

Further reading

Henggeler, S., Cunningham, P., Rowland, M., & Schoenwald, S. (2012). *Contingency management for adolescent substance abuse: A practitioner's guide*. New York: Guilford Press.

Kaminer, Y., & Winters, K. (2011). *Clinical manual of adolescent substance abuse treatment*. Arlington, VA: American Psychiatric.

Liddle, H. A. (2005). *Multidimensional family therapy for adolescent substance abuse*. New York: Norton. A version of this book is available at http://www.chestnut.org/LI/cyt/products/MDFT_CYT_v5.pdf

Szapocznik, J., Hervis, O., & Schwartz, S. (2002). *Brief strategic family therapy for adolescent drug abuse*. Rockville, MD: National Institute for Drug Abuse. http://www.drugabuse.gov/TXManuals/bsft/BSFTIndex.html

Szapocznik, J., & Kurtines, W. (1989). *Breakthroughs in family therapy with drug abusing problem youth*. New York: Springer.

Websites

Botvin LifeSkills Training (drug misuse prevention programme): http://www.lifeskillstraining.com/

Brief Strategic Family Therapy (BSFT): http://www.bsft.org/

Chestnut Health Systems manuals for MDFT, CBT, A-CRA and the Global Appraisal of Individual Needs (GAIN): http://www.chestnut.org/LI/CYT/Products

Drug Treatment Centre Board, Ireland: http://www.addictionireland.ie/about/default.asp

Drugscope, UK: http://www.drugscope.org.uk/

Functional Family Therapy (FFT): http://www.fftinc.com/

Multidimensional Family Therapy (MDFT): http://www.miami.edu/ctrada/

Multisystemic Therapy (MST): http://mstservices.com/

Narcotics Anonymous: http://www.na.org/

National Institute for Drug Abuse, US: http://www.nida.nih.gov/nidahome.html

National Treatment Agency for Substance Misuse, UK: http://www.nta.nhs.uk/

Substance Abuse and Mental Health Service Administration, US: http://www.samhsa.gov/

Chapter 16

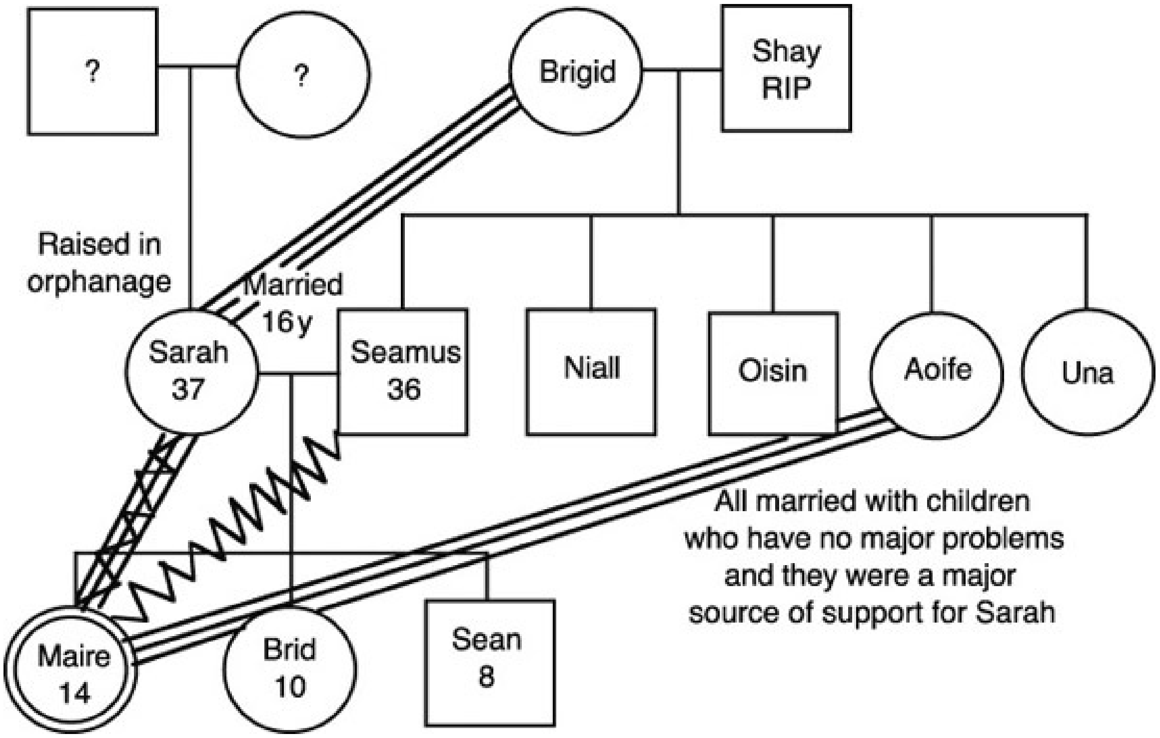
Mood problems

Depression in childhood or adolescence may be a particularly distressing experience for both the young person and other family members, particularly parents (Abela & Hankin, 2008; Nolen-Hoeksema & Hilt, 2009). This is illustrated by the case presented in Box 16.1. Unfortunately the outcome for depression in childhood and adolescence is not favourable. While the majority of youngsters recover from a depressive episode within a year, they do not *grow out of* their mood disorder. Major depression is a recurrent condition and depressed youngsters are more likely than their non-depressed counterparts to develop episodes of depression as adults although they are no more likely to develop other types of psychological problems. Double depression, that is an ongoing persistent mood disorder (dysthymia) and an episodic major depressive condition, severe depressive symptoms, maternal depression, co-morbid conduct or drug misuse, family problems and social adversity have all been shown in longitudinal studies to be predictive of worse outcome (Garber, 2010; Klein et al., 2013).

Box 16.1 A case of adolescent depression

Referral. The O'Connors phoned and requested an urgent appointment at the Clanwilliam Institute after Maire admitted to shoplifting, lying and truanting from school. Seamus described his daughter on the phone as 'right out of control'.

History of the presenting problem. In the intake interview the following history of the presenting problem emerged. Sarah, while cleaning Maire's room had found some bottles of perfume in her drawer and confronted her about this. Eventually Maire admitted to stealing them. A couple of days later, the principal from Maire's school phoned to ask her whereabouts, and from this her parents concluded she was truanting. When confronted by her father she admitted to truanting with a girl, Julie, who was known as a troublemaker in the school. Maire agreed to follow house and school rules and was apparently well behaved for the next week. However, her mother found her after school smoking with Julie and a gang of four youths who were in their late teens or early twenties. When grounded following this incident, Maire locked herself in her room for 24 hours and wailed or cried periodically and made threats of self-harm.



Developmental history. Maire was born and grew up in Sligo, but moved to Dublin with the family 12 months before the referral. Maire's birth was without complications but her mother suffered post-partum depression for about six months following her birth. During this period Maire was cared for by her aunt Aoife in Sligo. Aoife was one of Seamus's four married siblings. Maire's pre-school development was unremarkable but she did have trouble settling into junior school and used to be very clingy when her mother left her at school in the morning. Sometimes she refused to go into her classroom. On these occasions her mother slapped her for being disobedient and insisted she attend school. Maire occasionally had nightmares during this period. In junior school Maire was in the top half of the class and on the school junior hockey team. She had two close friends and many acquaintances. The transition to secondary school was relatively uneventful. Maire expressed some anxieties to her mother about managing in the new school. The fact that her two close friends went to secondary school with her made the process fairly easy for her. However, she found that she was physically maturing more rapidly than her two friends and felt awkward about this.

During her first 2 years at secondary school she formed a close friendship with Tricia, an older girl who was particularly wild. Tricia lived in a single-parent family. She spent a lot of time unsupervised since her mother worked shift work and was often at work or sleeping while Tricia and Maire were in the house. Maire occasionally became involved in conflicts with her mother because of her relationship with Tricia. Maire often stayed out later than permitted at Tricia's and had begun smoking.

When the O'Connors moved to Dublin, Sarah was hopeful that the rift that had opened between herself and her daughter would close. In fact this began to happen during the early months in Dublin. Maire would confide that she had few close friends at school and felt excluded by her classmates. She would cry, express strong feelings of loneliness and stay in bed for whole days at the weekend. She would then have difficulty sleeping at night. However, after she met Julie the gap between herself and her mother widened. She became irritable around the house. She had tantrums and would not keep house rules. This was the lead-in to the presenting problems just described.

Family history. Sarah and Seamus had been married for 16 years. They met on holidays in England. Seamus was working there as a driver at the time and Sarah was in secretarial work. After about a year they were married and moved to Sligo, Seamus's home town, where he got work as a distribution manager in a computing manufacturing firm. Sarah also found a secretarial position in the same firm.

Sarah was happy with the move to Sligo because she had no family ties in the UK. She had been brought up in an orphanage and a series of foster homes. She was pleased to move into a district where Seamus's family of origin lived. Seamus mother and his four married siblings accepted her and formed good friendships with her.

Seamus and Sarah had three children. Maire was born 3 years after their marriage, Brid 4 years later and Sean 2 years after that. After each child, Sarah experienced post-partum depression. The first episode following Maire's birth was the worst and lasted 6 months. All of Seamus's family were very supportive during these episodes and Aoife (Seamus's eldest sibling) in each instance took care of the new-born child while Sarah recovered.

Sarah took a break from work during the children's early years but went back to work full time 2 years before the family moved to Dublin. The move to Dublin was prompted by a lucrative job offer for Seamus. The job, with a foreign computing manufacturing company, was highly stressful and involved long hours, unpredictable interruptions of home life during the evenings and weekends, and an aggressive work ethic. It left Seamus relatively unavailable for family life and when available he was irritable and exhausted.

In Dublin Sarah found herself isolated through the absence of Seamus's family of origin and Seamus's own absence from family life because of his long working hours. This isolation led to a recurrence of her depression and she was on antidepressants at the time of referral.

Sarah found herself having to manage the crisis with Maire without input from Seamus because of his work commitment. She oscillated between a harsh critical stance towards Maire's theft, smoking, truanting and defiance and a highly empathic, concerned and tolerant stance towards Maire's loneliness and sense of despair. Seamus criticized her for adopting such an ambiguous position.

Maire's presentation. Maire's scores on both the internalizing and externalizing scale of the Child Behaviour Checklist, Teacher Report Form and Youth Self-Report Form were in the clinical range. On the Childhood Depression Inventory, Maire also scored above the clinical cut-off. In individual interviews Maire reported suicidal ideation without intent. She described herself as lonely much of the time and hated living in Dublin. She missed her friends from the west and dreaded going to school where she was ostracized and humiliated. She had become engaged in shoplifting to obtain gifts for Tricia who had befriended her. Later she stole goods and sold them to get money for cigarettes for herself and Tricia. She did not believe that she would ever fit into her new school or do well in exams despite her excellent previous school record. She thought that there was something wrong with her and that was the reason why the other girls excluded her. She described herself as ugly, boring and horrible. She found that she could not concentrate on her work and often drifted into depressing daydreams. She looked back on her life in the west as if it belonged to someone else and said that she knew things would only get worse and nothing she would do could change this. She had thought of killing herself from time to time but had no firm plan. She had difficulty sleeping through the night and often awoke at 5.00 am and couldn't go back to sleep. She felt tired most of the time and rarely felt like eating more than tea and toast.

Formulation. Maire showed affective, cognitive, behavioural and somatic features consistent with a diagnosis of depression. The episode had lasted about a year. In addition she had a variety of conduct problems which began in early adolescence and had fluctuated since then. The episode of depression was precipitated by moving from Sligo to Dublin. This move involved the loss of important friendships and a school context in which she was accepted and performing above average. Predisposing factors for Maire's mood disorder include a probable genetic predisposition and an early separation experience during her mother's post-partum depression.

Maire's depression was maintained by her self-defeating thinking style and problematic relationships with her parents. She had become resigned to accepting an isolated position in school. She and her parents had developed a style of interacting that was either conflictual or over-involved.

These immediate maintaining factors occurred within a wider social context where Maire's parents were unsupported and under high levels of stress. For Seamus the main stresses were work related and for Sarah, isolation was the main source of stress. The high stress and low support had begun to erode the good working relationship that Seamus and Sarah enjoyed as parents and marital partners before the move to Dublin.

The conduct problems appeared to be secondary to the depression. They reflected Marie's attempt to cope with isolation by mixing with deviant peers.

There were a number of important protective factors in this case which suggested that a positive outcome was probable in this case. These included Maire's high overall level of academic ability and problem-solving skills; Maire's ability in the past to make and maintain friendships; Seamus and Sarah's demonstrated capacity to maintain a good marital relationship over many years and in the face of three major episodes of depression; and the parents' and Maire's commitment to resolving the problem.

Treatment. Treatment in this case involved family work to improve the level of support offered to Maire by her parents; liaison with the school which aimed to increase Maire's involvement in structured activities such as sports and drama; and individual cognitive therapy which aimed to help Maire challenge her negative beliefs and improve her problem-solving skills. Over a period of 3 months Maire's mood, family relationships, and school-based adjustment improved.

In this chapter, after considering the classification, epidemiology and clinical features of mood disorders, a variety of theoretical explanations concerning the aetiology of these types of problems will be considered along with relevant empirical evidence. An approach to the assessment of childhood depression and its treatment will then be given. Bipolar disorder, which is characterized by episodes of both depression and mania or hypomania, will then be considered. This will be followed by a discussion of the management of suicide risk and self-harm. The chapter will conclude with a consideration of prevention of depression in at-risk populations.

Diagnosis and classification

Diagnostic criteria for episodes of major depression from the DSM-5 (APA, 2013) and ICD-10 (WHO, 1992) classification systems are presented in Table 16.1. Table 16.2 contains items from the ASEBA Anxious-Depressed and Withdrawn-Depressed syndrome scales for toddlers and school-aged youngsters (Achenbach & Rescorla, 2000, 2001). There are marked similarities between these three diagnostic systems. All three include depressed mood, depressive cognition, and suicidal ideation as central to a depressive episode. However, the DSM and ICD systems include vegetative or somatic features, which are absent from Achenbach's system. It is noteworthy that the ASEBA empirically derived syndromes, in addition to excluding vegetative features, include anxiety. The co-occurrence of anxiety and depression is dealt with in DSM by specifying that the depressive disorder occurs with anxious distress or by making co-morbid diagnoses of anxiety disorders.

Table 16.1 Diagnosis of major depressive episode

DSM-5	*ICD-10*
	In a typical depressive episode the

A. Five (or more) of the following symptoms have been present during the same 2-week period and represent a change from previous functioning: at least one of the symptoms is either (1) depressed mood or (2) loss of interest or pleasure.

Note: Do not include symptoms that are clearly attributable to another medical condition.

1. Depressed mood most of the day, nearly every day, as indicated by either subjective report (e.g., feels sad, empty, hopeless) or observation made by others (e.g., appears tearful). (Note: In children and adolescents, can be irritable mood.)
2. Markedly diminished interest or pleasure in all, or almost all, activities most of the day, nearly every day (as indicated by either subjective account or observation).
3. Significant weight loss when not dieting or weight gain (e.g., a change of more than 5% of body weight in a month), or decrease or increase in appetite nearly every day. (Note: In children, consider failure to make expected weight gain.)
4. Insomnia or hypersomnia nearly every day.
5. Psychomotor agitation or retardation nearly every day (observable by others, not merely subjective feelings of restlessness or being slowed down).
6. Fatigue or loss of energy nearly every day.
7. Feelings of worthlessness or excessive or inappropriate guilt (which may be delusional) nearly every day (not merely self-reproach or guilt about being sick).

individual usually suffers from depressed mood, loss of interest and enjoyment and reduced energy leading to increased fatigue, ability and diminished activity. Marked tiredness after only slight effort is common. Other common symptoms are:

a. reduced concentration and attention
b. reduced self-esteem and confidence
c. ideas of guilt and unworthiness
d. bleak and pessimistic views of the future
e. ideas or acts of self harm or suicide
f. disturbed sleep
g. diminished appetite.

The lowered mood varies little from day to day and is often unresponsive to circumstances and may show a characteristic diurnal variation as the day goes on.

Some of the above symptoms may be marked and develop characteristic features that are widely regarded as having special significance for example the *somatic symptoms* which are: loss of interest or pleasure in activities that are normally enjoyable; lack of emotional reactivity to normally pleasurable surroundings; waking in the morning 2 hours or more before the usual time; depression worse in the mornings; psychomotor retardation or agitation; marked loss of appetite or weight; marked loss of libido.

Usually the somatic syndrome is not

8. Diminished ability to think or concentrate, or indecisiveness, nearly every day (either by subjective account or as observed by others).
9. Recurrent thoughts of death (not just fear of dying), recurrent suicidal ideation without a specific plan, or a suicide attempt or a specific plan for committing suicide.

B. The symptoms cause clinically significant distress or impairment in social, occupational, or other important areas of functioning.

C. The episode is not attributable to the physiological effects of a substance or to another medical condition.

Note: Criteria A–C represent a major depressive episode.

Note: Responses to a significant loss (e.g., bereavement, financial ruin, losses from a natural disaster, a serious medical illness or disability) may include the feelings of intense sadness, rumination about the loss, insomnia, poor appetite, and weight loss noted in Criterion A, which may resemble a depressive episode. Although such symptoms may be understandable or considered appropriate to the loss, the presence of a major depressive episode in addition to the normal response to a significant loss should also be carefully considered. This decision inevitably requires the exercise of clinical judgment based on the individual's history and the cultural norms for the expression of distress in the context of loss.

regarded as present unless at least four of these symptoms are present.

Atypical presentations are particularly common in adolescence. In some cases anxiety, distress, and motor agitation may be more prominent at times than depression and mood changes may be masked by such features as irritability, excessive consumption of alcohol, histrionic behaviour and exacerbation of pre-existing phobic or obsessional symptoms or by Hypochondriacal preoccupations.

A duration of 2 weeks is required for a diagnosis

Specify:

Severity: This based on the number and severity of symptoms and degree of functional impairment. In mild depression there is low mood, loss of interest, and fatigability and 2 other depressive symptoms for at least 2 weeks; symptoms are mild; and there is limited functional impairment. In severe depression there are many severe symptoms and extreme functional impairment. Moderate severity falls between these extremes.

With psychotic features: Delusions, hallucinations or depressive stupor are present.

With somatic symptoms: Four of

D. The occurrence of the major depressive episode is not better explained by schizoaffective disorder, schizophrenia, schizophreniform disorder, delusional disorder, or other specified and unspecified schizophrenia spectrum and other psychotic disorders. E. There has never been a manic episode or a hypomanic episode. Note: This exclusion does not apply if all of the manic-like or hypomanic-like episodes are substance-induced or are attributable to the physiological effects of another medical condition. (For specifiers, see DSM-5 p. 162.)	the following are present: loss of pleasure in almost all activities, lack of reactivity to pleasurable stimuli, distinct quality of depressed mood, early morning waking, worse in the morning, marked psychomotor agitation or retardation, marked loss of appetite, significant weight loss, and loss of libido.

Note: DSM-5 diagnostic criteria are reprinted with permission from the *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition* (APA, 2013). Copyright © 2013 American Psychiatric Association. The material in the column headed ICD-10 is a summary of the clinical description and diagnostic guidelines for a depressive episode. For the full official WHO clinical descriptions and diagnostic guidelines for this disorder see WHO, 1992, pp. 119–121.

Table 16.2 ASEBA Anxious-Depressed and Withdrawn-Depressed syndrome scales for 1.5–5 and 6–18 year olds

	ASEBA 1.5–5 year olds	*ASEBA 6–18 year olds*
Anxious-depressed syndrome	**Depression** Sad (P&T) Looks unhappy (P&T) Feels hurt (P&T) **Anxiety** Fearful (P&T) Nervous (P&T) Self-conscious (P&T) Upset by separation (P&T) Clings (P&T)	**Depression** Talks or thinks of suicide (P&T&C) Feels worthless (P&T&C) Feels unloved (P&T&C) Feels too guilty (P&T&C) Must be perfect (P&T&C) Anxious to please (C) Afraid to make mistakes (C) Feels hurt when criticized (T) **Anxiety** Fearful and anxious (P&T&C) Nervous (P&T&C) Self-conscious (P&T&C) Has many fears (P&T&C) Fears school (P&T&C)

		Fears doing bad things (P&T&C) Worries (P&T&C) Cries a lot (P&T&C)
Withdrawn-depressed syndrome	**Depression** Shows little interest (P&T) Shows little affection (P&T) Unresponsive to affection (P&T) **Social withdrawal** Withdrawn (P&T) Avoids eye contact (P&T) Doesn't answer when spoken to (P&T) Refuses to play active games (P&T) Daydreams (T) Acts too young (P&T) Apathetic (T)	**Depression** Sad (P&T&C) Enjoys little (P&T&C) Lacks energy (P&T&C) **Social withdrawal** Withdrawn (P&T&C) Shy (P&T&C) Secretive (P&T&C) Would rather be alone (P&T&C) Refuses to talk (P&T&C)

Note: Adapted from Achenbach & Rescorla (2000, 2001). Items marked (P) are on the parent report Child Behaviour Checklist. Items marked (T) are on the Teacher Report or Caregiver and Teacher Report Form. Items marked (C) are on the Youth Self-Report Form.

From Tables 3.1 and 3.2 in Chapter 3 it may be seen that both DSM and ICD make distinctions between unipolar and bipolar mood disorders, and between episodic disorders and the milder but more persistent conditions of dysthymia and cyclothymia.

Major depressive disorder and bipolar disorder are both episodic conditions, with the former being characterized by episodes of low mood, negative cognition, sleep and appetite disturbance and the latter being characterized in addition by episodes of mania or hypomania in which elation, grandiosity, flight of ideas and expansive behaviour occur. Dysthymia and cyclothymia are less severe non-episodic chronic and continuous conditions, with dysthymia being characterized by depressive symptomatology and cyclothymia being characterized by similar but less extreme mood fluctuations than bipolar disorder.

The distinctions between unipolar and bipolar conditions and between episodic and persistent disorders which are central to the classification of mood disorders in ICD-10 and DSM-5 have subordinated earlier classifications systems which made primary distinctions between psychotic and neurotic, endogenous and reactive, and overt and masked depression (Farmer & McGuffin, 1989; Kendell, 1976; Parker, 2009). With the psychotic/neurotic and endogenous/reactive classification systems, it was assumed that psychotic and endogenous depressions were more severe than neurotic and reactive depressions. It was also assumed that the more severe conditions were due to genetic and biological factors and required treatment with medication or electroconvulsive therapy, while the less severe conditions were due to environmental factors and required treatment with psychotherapy (Parker, 2009). However, evidence from stressful life event research shows that all episodes of depression, regardless of quality or severity, are preceded by stressful life events and in that sense are reactive (Klein et al., 2013; Monroe et al., 2009). Treatment outcome research, conducted with young people and adults, has shown that only about 2 out of 3 cases of depression respond to available treatments; that symptom type or severity does not always predict which patients will respond to physical or psychological interventions; and that for most patients multi-modal therapy involving a combination of medication and psychotherapy is most effective (Maalouf & Brent, 2012; Paykel & Scott, 2009). The older psychotic/neurotic and endogenous/reactive distinctions have been incorporated into DSM-5 and ICD-10, insofar as depressive episodes may be specified as having either psychotic features or melancholic/somatic features, typical of what formerly was referred to as endogenous depression. With regard to the overt/masked distinction, this was introduced to take account of children whose depression was masked by conduct problems (Carlson & Cantwell, 1980). What would formerly have been referred to as masked depression in children is classified as co-morbid depression and conduct disorder in DSM-5 and as depressive conduct disorder in ICD-10.

Clinical features

From Table 16.1 it may be seen that in DSM-5 and ICD-10 there is scope for specifying a range of clinical features, based on symptoms and course. These include severity; anxiety; manic, melancholic, atypical, psychotic, and catatonic features; and peri-partum onset and seasonal pattern. The main clinical features of depression, classified in terms of the psychological functions with which they are associated, are presented in Table 16.3 (Abela & Hankin, 2008; Klein et al., 2013; Nolen-Hoeksema & Hilt, 2009). These features may be linked by assuming that the depressed child has usually suffered a loss of some sort, either a loss of an important relationship, a loss of some valued attribute such as athletic ability or health, or a loss of status.

Table 16.3 Clinical features of depression in children and adolescents

Perception	• Perceptual bias towards negative events • Mood congruent hallucinations*
Cognition	• Negative view of self, world and future • Excessive guilt • Suicidal ideation or intent* • Mood congruent delusions* • Cognitive distortions

	• Poor concentration
Affect	• Depressed mood • Inability to experience pleasure • Irritable mood • Anxiety and apprehension
Behaviour	• Self-defeating behaviour • Psychomotor retardation or agitation • Depressive stupor*
Somatic state	• Fatigue • Disturbance of sleep • Aches and pains • Loss of appetite or overeating • Change in weight* • Diurnal variation of mood (worse in morning) • Loss of interest in sex
Interpersonal adjustment	• Deterioration in family relationships • Withdrawal from peer relationships • Poor school performance

*These features occur in severe episodes of depression.

With respect to perception, having suffered a loss depressed children tend to perceive the world as if further losses were probable. Depressed children selectively attend to negative features of the environment and this in turn leads them to engage in depressive cognitions and unrewarding, self-defeating behaviour patterns which further entrench their depressed mood. In severe cases of adolescent depression, youngsters may report mood congruent auditory hallucinations. We may assume that this severe perceptual abnormality is present when youngsters report hearing voices criticizing them or telling them depressive things. Auditory hallucinations also occur in schizophrenia, which is discussed in Chapter 18. However, the hallucinations which occur in schizophrenia are usually not mood congruent.

With respect to cognition, depressed children describe themselves, the world and the future in negative terms. They evaluate themselves as worthless and are critical of their academic, athletic, musical and social accomplishments. Often this negative self-evaluation is expressed as guilt for not living up to certain standards or letting others down. They see their world, including family, friends and school as unrewarding, critical and hostile or apathetic. They describe the future in bleak terms and report little if any hope that things will improve. Where they report extreme hopelessness and this is coupled with excessive guilt for which they believe they should be punished, suicidal ideas or intentions may be reported. Suicide will be discussed in detail in a later section of this chapter. Extremely negative thoughts about the self, the world and the future may be woven together in severe cases into depressive delusional systems. In addition to the content of the depressed youngster’s thought being bleak, they also display logical errors in their thinking and concentration problems. Errors in reasoning are marked by a tendency to maximize the significance and implications of negative events and minimize the significance of positive events. Concentration and attention difficulties lead to difficulties managing schoolwork or leisure activities demanding sustained attention.

With respect to affect, low mood and an inability to experience pleasure (anhedonia) is a core feature of depression. Depressed mood is usually reported as a feeling of sadness, loneliness or despair and an inability to experience pleasure. Alternatively irritability, anxiety and aggression may be the main features with sadness and inability to experience pleasure being less prominent. This is not surprising since normal grief is characterized by sadness at the absence of the lost object, anger at the lost object for abandoning the grieving person and anxiety that further losses may occur. These grief processes are discussed in detail in Chapter 24. Depressed children and adolescents may show some cocktail of all three emotional processes, that is, depressed mood, irritability and anxiety.

At a behavioural level, depressed youngsters may show either reduced and slowed activity levels (psychomotor retardation) or increased but ineffective activity (psychomotor agitation). They may show a failure to engage in activities that would bring them a sense of achievement or connectedness to family or friends. Where youngsters become immobile, this is referred to as depressive stupor. Fortunately this is rare.

Somatic or vegetative features such as loss of energy, disturbances of sleep and appetite; weight loss or failure to make age-appropriate weight gain; abdominal pains or headaches; and diurnal variation in mood are all associated with more severe conditions. Teenagers may also report losing interest in sex. These features of depression are consistent with findings that dysregulation of neurophysiological, endocrine and immune functions are associated with depression and that sleep architecture is also affected. This material will be mentioned in more detail in the section on biological theories of depression.

At an interpersonal level, depressed children report a deterioration in their relationships with family, friends, teachers and other significant figures in their lives. They describe themselves as lonely and yet unable or unworthy of taking steps to make contact with others.

Epidemiology

For children and adolescents the reliability of diagnoses of depression in epidemiological studies range from .28 to .62 as shown in Table 3.4 in Chapter 3. Thus, it appears that even with standardized interview schedules and clear diagnostic criteria, it is often difficult to diagnose depression in young people reliably. Depression is not a rare condition (Costello et al., 2004; Merikangas et al., 2009). In community samples the prevalence of major depressive disorder in young people is about 4% (with a range of 0.2–17%). A number of noteworthy trends have been found in epidemiological studies of depression (Costello et al., 2006; Kessler

& Wang, 2009; Klein et al., 2013). Depression is more common among adolescents than pre-adolescents. Similar rates of depression occur in pre-adolescent boys and girls, but in adolescence the prevalence of depression is higher in girls. In adulthood, the prevalence rate for depression in women is double that in men. Depression is very common among clinic referrals. In clinic studies about 25% of referrals have a major depression. Rates of depression in children and adolescents were relatively stable in the second half of the 20th century, despite the popular view that there was an epidemic of depression among young people.

Depression quite commonly occurs in conjunction with other disorders, particularly in children referred for treatment. In community studies of childhood depression co-morbidity rates of 10–17% have been found for conduct disorder, anxiety disorders, and attention deficit disorder as shown in Table 3.9 in Chapter 3. In a community population study of the ASEBA anxious-depressed syndrome, co-morbidity rates of 15–28% were found for the ASEBA aggressive behaviour, attention problems and somatic symptoms syndromes as shown in Table 3.10 in Chapter 3. In contrast, the co-morbidity rates for the same syndromes were much higher at 30–43% in a clinic population study of the ASEBA anxious-depressed syndrome.

It has been mentioned that in ICD-10 children who show both serious conduct problems and depression are given a diagnosis of depressive conduct disorder. This is because these children have a distinct profile. Children with depressive conduct disorder or who meet DSM diagnostic criteria for both conduct disorder and depression have greater mood variability, a poorer response to antidepressant medication and higher rates of substance misuse in adulthood (Harrington, 1993).

The course of depression in children and adolescents is variable (Birmaher et al., 2002; Klein et al., 2013). Most young people recover from episodes of depression. Some experience continuing residual sub-syndromal symptoms or dysthymia. In clinical samples episodes of major depressive disorders last 7–8 months, but in community samples the duration of episodes is far shorter. Between 30% and 70% experience further episodes. Those with a familial history of depression, severe depressive symptoms, double depression (i.e. major depression and co-morbid dysthymia), suicidality, psychotic symptoms, anxiety, depressive cognitive style, other co-morbid disorders, and exposure to significant life stresses are most at risk for longer episodes of depression and relapse. Depressed young people with a family history of bipolar disorder and who present with psychotic features, psychomotor retardation, and for whom antidepressant treatment induces hypomania or mania are at high risk to develop bipolar disorder.

Research on adults shows that for a sub-group of people who suffer from depression, deficits in visually processing light and the season of the year are risk factors for depression (Rosenthal, 2009). These people who experience regularly recurring depressive episodes in the autumn and winter, with remission in the spring and summer, are said to have seasonal affective disorder. They develop symptoms in the absence of adequate light and respond favourably to enhanced environmental lighting, often referred to as 'light therapy' (Golden et al., 2005).

In community samples of adults about 3.4% of people with a major depressive disorder commit suicide; the rate in clinical samples is about 15%; and about 60% of completed suicides (studied by psychological autopsy) are depressed (Berman, 2009).

Theories

Research and treatment of depression has been guided by theories developed within the neurobiological, psychoanalytic, cognitive behavioural, and interpersonal and family systems traditions. In addition, psychological research on depression has been informed by constructs such as stress, temperament, personality traits, cognitive biases, coping strategies and interpersonal styles. The main propositions of some examples of these types of theories are set out in Table 16.4 and discussed later.

Table 16.4 Theories of depression

Type	*Theory*	*Theoretical principles*	*Clinical implications*
	Genetic theories	Depression occurs when a person with a biological vulnerability to depression is exposed to stress. The genetic vulnerability affects neurobiological abnormalities associated with depression, i.e. structural and functional brain abnormalities, neurotransmission dysregulation, hypothalamic-pituitary-adrenal (HPA) axis abnormalities,	Research based on the genetic hypothesis aims to develop interventions that will 'turn off' genes associated with depression

Biological theories		immune system dysfunction, and biological rhythm abnormalities.	
	Limbic system and pre-frontal cortex hypothesis	Depression is caused by an over-active limbic system (which subserves intense negative mood states) and an under-active pre-frontal cortex (which subserves poor self-regulation).	Antidepressant medication to decrease limbic system over-activity and psychological interventions to improve self-regulation and increase activity in the pre-frontal cortex
	Neurotransmission dysregulation theories	Inefficient neurotransmission within and between brain structures associated with depression subserve the symptoms of depression. Serotonin and noradrenalin are the main neurotransmitters involved.	Antidepressant medication to increase the efficiency of the serotonin and noradrenaline neurotransmission systems
	The HPA axis hypothesis	Depressive symptoms are caused by over-activity of the HPA axis and associated chronically raised cortisol levels. HPA axis over-activity is due to exposure to high levels of stress in	Interventions that improve self-regulation and reduce stress

Stress theories		early life. Raised cortisol levels reduce immune system functioning and increase risk of physical illnesses.	
	Biological rhythm hypothesis	Depression is due to abnormal circadian rhythms which govern the sleep-waking cycle, or abnormal seasonal rhythms.	Temporarily relieve depression through sleep deprivation Artificially extend daylight in winter using a light box
	Diathesis-stress theory	In vulnerable people with a depressive diathesis, depression develops following exposure to excessive stress with which the individual is unable to cope.	Psychological interventions that reduce stress or antidepressants which reduce vulnerability to stress
	Stress generation theory	People with certain personal attributes inadvertently generate excessive stress though self-defeating behaviour and poor self-regulation which in turn leads to depression.	Interventions that improve self-regulation and prevent self-defeating behaviour that generates stress
		Depression occurs	Facilitate transference; facilitate insight into the triangle

Psychoanalytic theories	**Freud's introjected anger theory**	when a person directs anger towards the self following loss of a valued relationship of failure to achieve a valued goal. The self-directed anger occurs due to regression to the oral stage where the valued object (at which the person is angry) is experienced as part of the self.	of conflict (defence, hidden feeling, anxiety) and triangle of person (current life situation, early experience with parents, relationship with therapist); and facilitate working through of related feelings Psychodynamic play therapy, short-term psychodynamic psychotherapy and long-term psychoanalysis
	Birbing's low self-esteem theory	Depression is due to low self-esteem arising from a large gap between the actual and ideal self. The gap results from an unrealistic ideal self based on internalizations of critical or perfectionistic parental injunctions. There are two types of depression associated with two distinct types of early parent–child relationships which engender	

	vulnerability to depression when faced with two distinct types of stresses in later life.	
Blatt's attachment and autonomy theory	*Loss of attachment* relationships may precipitate depression in those who experienced neglecting or over-indulgent parenting. *Loss of autonomy* may lead to depression in those who experiences of critical punitive parenting.	
Cognitive theory	Depression occurs when life events involving loss occur and reactivate negative cognitive schemas formed early in childhood as a result of early loss experiences. In specific situations negative schemas give rise to negative automatic thoughts and cognitive distortions which	Cognitive therapy in which young people learn to monitor situations where depressive automatic thoughts and distortions occur and challenge them; engage in activities that provide evidence to refute their negative automatic thoughts; and practice mindfulness to change their relationship with negative

Cognitive-behavioural therapy		maintain a depressed mood.	automatic thoughts Beck's cognitive therapy
	Behavioural theory	People with depression avoid situations where they can receive Response Contingent Positive Reinforcement (RCPR) because they lack the social skills required for eliciting rewarding interactions from others.	Social skills training which aims to train clients in skills necessary for receiving RCPR and to arrange the environment so that there are many opportunities for using these social skills Lewinsohn's Coping with Depression programme
	Self-control theory	Depression occurs when a person selectively monitors the occurrence of negative events to the exclusion of positive events; selectively monitors immediate rather than long-term consequences of actions; sets overly stringent criteria for evaluating actions; makes negative attributions for personal actions; engages in little self-	Training which aims to improve the skills required for more effective self-monitoring, self-evaluation and self-reinforcement Stark's Action programme

		reinforcement for adaptive behaviours; and engages in excessive self-punishment.	
	Learned helplessness theory	Depressions occurs when a person repeatedly fails to control the occurrence of aversive stimuli and makes internal global stable attributions for these failures (and external, specific, unstable attributions for success).	Attributional retraining where young people learn optimism and problem-solving and self-regulation skills Seligman's Penn Resiliency programme
Social theories	**Interpersonal theory**	Depression is maintained by (1) grief, (2) role disputes, (3) role transitions, (4) poor social skills, and (5) living in a single-parent family.	Interpersonal therapy where young people address the key interpersonal issue that maintain their low mood Mufson's Interpersonal Therapy for Depressed Adolescents
		Depression occurs when the structure and functioning of the family prevents the child from completing age appropriate developmental tasks.	Family therapy in which family members develop

	Family systems theory	Bereavement, parental discord, divorce, abuse and placement in care all disrupt family structure and may lead to depression. Excessive parental criticism, offering attention only when failure occurs and ignoring success may lead to depression. Family enmeshment and related parent–child conflict over individuation may be associated with depression in adolescence.	supportive relationships with the depressed child and facilitate them in completing age appropriate developmental tasks such as individuation in adolescence Diamond's Attachment-Based Family Therapy for depressed adolescents

Biological theories

Biological theories of depression point to the role of genetic factors in rendering people vulnerable to the development of mood disorders, and to the role of structural and functional brain abnormalities, dysregulation of neurotransmitter, neuroendocrine and immune systems, and sleep architecture and circadian rhythm abnormalities in the aetiology of depression. Hypotheses about biological factors involved in the aetiology and maintenance of depression are set out in Table 16.4. Much of the work on the biology of depression is extremely complex and still in its early stages. The positions set out represent simplifications of this vast literature. It is also important to mention that most research on the psychobiology of mood disorders has been conducted with depressed adults rather than with children or adolescents, and in some instances biological abnormalities detected in adults with mood disorders have not been found in children and adolescents (Garber, 2010; Hammen et al., 2010).

Genetic theories. The genetic hypothesis proposes that depression develops where a person with an inherited vulnerability to mood disorders is exposed to stressful life events. Results of twin, adoption and family studies show that a predisposition to depression is genetically transmitted, but that in childhood and adolescence the role of environments may be stronger than in adulthood (Bergen et al., 2007; Franić et al., 2010; Levinson, 2009). The precise biological characteristics that are genetically transmitted and the mechanisms of transmissions are still largely unknown. However, results of studies on structural and functional brain abnormalities, neurotransmitter dysregulation, endocrine abnormalities, immune system dysfunction, sleep architecture and circadian rhythm abnormalities in some cases suggests that a biological vulnerability to dysregulation of one or more of these systems is probably inherited. It is also probable that the vulnerability is polygenetically transmitted since the results of family studies cannot easily be accounted for by simpler models of genetic transmission.

Many candidate genes for depression have been investigated; few have been identified; and where significant associations between candidate genes and depression have been found, very few consistent replication studies are available (Dunn et al., 2011; Levinson, 2009). The search for candidate genes has focused in large part on those whose products affect neurotransmitters thought to be involved in the aetiology of mood disorders, notably serotonin and noradrenaline. One candidate gene which affects the serotonin system deserves mention because consistent support has been found for the link between it and vulnerability to depression. A common polymorphism (5-HTTLPR) in the promoter region of the serotonin transporter gene (5HTT or SLC6A4) regulates gene expression. In a large meta-analysis, Karg et al., (2011) found that the short (rather than the long) allele variant of the 5-HTTLPR polymorphism increases the risk of developing depression under stress, particularly in the case of child abuse and severe medical problems. This increased stress sensitivity for these types of life events probably occurs because of decreased serotonin reuptake and increased amygdala neuronal activity in response to stress. The vulnerability associated with the short allele variant of the 5-HTTLPR polymorphism, is not specific to depression. It also renders people vulnerable to post-traumatic stress disorder (PTSD) and borderline personality disorder. This is because the serotonergic neurotransmitter system subserves a range of stress-related emotional processes including both depression and anxiety.

The limbic system and pre-frontal cortex hypothesis. Depression is associated with abnormalities in the functioning of brain structures that subserve the experience and expression of emotions, primarily the limbic system and those that subserve self-regulation, primarily the dorsolateral pre-frontal cortex. In depressed people the limbic system (especially the amygdala and anterior cingulate cortex) is over-active, while the dorsolateral pre-frontal cortex is under-active (Hamilton et al., 2012). The over-active limbic system probably subserves the ongoing experience of intense negative emotions, while the under-active dorsolateral pre-frontal cortex probably subserves a deficit in regulating these negative emotional experiences through reappraisal and purposeful problem solving. Structural and functional brain imaging studies, conducted mainly with adults, partially support this hypothesis (Maletic et al., 2007). There is some preliminary evidence that successful psychological and pharmacological treatments of depressed adults normalize these abnormalities in different ways. Psychological interventions such as cognitive therapy probably ameliorate depression by increasing activity in the pre-frontal cortex, whereas antidepressant medication probably alleviates depression by decreasing limbic system over-activity (Clark & Beck, 2010b; Thase, 2009).

Neurotransmission dysregulation theories. These theories propose that inefficient neurotransmission within and between brain structures associated with depression subserve the symptoms of depression. There is evidence for hypoactivity of the serotonergic and noradrenergic neurotransmission systems in neuroanatomical centres associated with depression (Thase, 2009). Originally depletion of serotonin and noradrenaline was thought to cause depression, but now a more complex dysregulation of these systems involving a reduction in the sensitivity of postsynaptic receptor sites is hypothesized to be the critical difficulty. The efficiency of these neurotransmission systems is reduced in depression and antidepressant drugs increase the efficiency with which these systems operate (Gitlin, 2009).

Four main classes of antidepressant medication have been developed: tricyclic antidepressants (TCAs), monoamine oxidase inhibitors (MAOIs), selective serotonin reuptake inhibitors (SSRIs), and novel or dual-action antidepressants (Gitlin, 2009). TCAs such as imipramine (trade name Tofranil) increase the sensitivity of dysfunctional receptor sites to serotonin and noradrenaline. MAOIs such as phenelzine (trade name Nardil) prevent the enzyme – monoamine oxidase – from breaking down neurotransmitters in the synaptic cleft and lead to an increase in neurotransmitter levels. TCAs and MAOIs were developed in the 1950s and were widely used until the 1980s when they were largely replaced in clinical practice by SSRIs and novel or dual-action antidepressants. SSRIs like fluoxetine (trade name Prozac) prevent serotonin from being reabsorbed into the presynaptic membrane and so increase levels of this neurotransmitter. Novel and dual-action antidepressants operate in a variety of ways. For example, venlafaxine (trade name Effexor), which is a dual-action antidepressant, prevents both noradrenaline and serotonin from being reabsorbed into the presynaptic membrane and so increases levels of both of these neurotransmitters. Results of meta-analyses of controlled trials show that for severe depression in adults the positive effects of antidepressants are substantial, but for mild or moderate depression their effects are negligible (Fournier et al., 2010). There is consistent evidence that genetic vulnerability to depression involves genes whose action affects the efficiency of the serotonin neurotransmitter system which is associated with depression as was noted earlier in the discussion of genetic factors. Results of treatment trials show that all classes of antidepressants are effective in alleviating depression in up to two-thirds of adult cases but only SSRIs are effective in alleviating depression in children or adolescents (Brent & Weersing, 2008; Gitlin, 2009; Maalouf & Brent, 2012), so only these are routinely used in the treatment of depression in youngsters under 18 years of age.

The HPA axis hypothesis. This hypothesis proposes that depressive symptoms are in part subserved by over-activity of the hypothalamic-pituitary-adrenal (HPA) axis (Wilkinson & Goodyer, 2011). The HPA axis is a major part of the neuroendocrine system involving the hypothalamus, the pituitary gland located below the hypothalamus, and the adrenal glands (located on top of the kidneys), which control stress reactions and other processes including the immune system, sexuality and digestion. HPA axis over-activity is a central aspect of the stress response. The HPA axis is activated by noradrenaline and inhibited by serotonin neurotransmission. There is evidence for the dysregulation of neuropeptides, notably corticotropin-releasing factor (CRF), in the limbic system of depressed people. CRF is released in response to stress and is associated with HPA axis hyperactivity. CRF release and increased HPA axis activity result in elevated levels of the stress steroid cortisol and disruption of normal cortisol circadian rhythms (Thase, 2009). Elevated cortisol arising from HPA axis over-activity in turn compromises the efficiency of the immune system, rendering depressed patients more susceptible to inflammatory diseases including arthritis and atherosclerosis (Glassman & Miller, 2007). Such illnesses in turn are additional stresses that may maintain or exacerbate depression. There is some evidence that children exposed to childhood adversity may be at increased risk of depression, because early exposure to extreme stress leads to long-term dysregulation of the HPA axis.

Biological rhythms hypothesis. This hypothesis proposes a link between disruption of circadian rhythms governing the sleep–waking cycle and depressive symptoms. Sleep disturbance is a core symptom of depression. Depressed people may have difficulty falling asleep, have broken sleep, may wake in the early morning, or may oversleep. Psychophysiological studies show abnormal sleep architecture underpins depressive sleep disturbance, although children and adults show different sleep abnormalities (Augustinavicius et al., 2014; Thase, 2009). Depressed adults and adolescents spend more time in rapid eye movement (REM) sleep and less time in slow wave sleep. They also show shorter REM onset latency and spend more time awake. In contrast depressed children spend longer in REM more time asleep than normal controls.

Up to 60% of depressed adults temporarily recover following 24 hours of sleep deprivation, although they relapse after even a brief sleep. It is hypothesized that sleep deprivation resets the dysregulated biological clock which governs circadian rhythms and that sleeping reactivates the abnormal biological clock settings which are controlled by abnormal circadian clock genes (BMAL1/CLOCK (NPAS2); Bunney & Bunney, 2013).

Antidepressants regularize abnormal sleep architecture, probably by normalizing serotonin and noradrenaline neurotransmission systems, which are dysregulated in depression and regulate sleep architecture. Light therapy, which artificially extends exposure to daylight during short winter days to the duration of long summer days, is an effective treatment for seasonal affective disorder, suggesting that seasonal depression is associated with disrupted circadian rhythms (Pail et al., 2011).

In summary, there is considerable support for neurobiological theories of depression. Major depressive disorder is about 40% heritable. Vulnerability to depression is probably polygenetic. So far the only candidate gene for which there is consistent evidence is one that affects the efficiency of the serotonergic neurotransmission system. Dysregulations of this system and the noradrenergic system occur in depression. Both neurotransmitter systems are involved in a range of other neurobiological aspects of depression including over-activity of the limbic system and under-activity of the dorsolateral pre-frontal cortex; HPA axis over-activity, elevated cortisol levels and reduced immune system efficiency; and disturbed sleep architecture characterized by increased REM and reduced slow wave sleep in adolescents and adults. These neurobiological abnormalities occur more commonly in severe depression. Antidepressant medication, which is effective for severe but not mild or moderate depression, alleviates depression by increasing the efficiency of serotonergic and noradrenergic neurotransmitter systems.

Stress theories

Stress theories propose that depression develops following exposure to demands and challenges with which the individual is unable to cope. There are variations on this theme. For example, diathesis-stress theories propose that depression only follows exposure to stress in people who have specific biological or psychological attributes that render them vulnerable to stressful life events, and the most vulnerable require the least stress for depression to occur (e.g. Klein et al., 2013). Stress-generation theory proposes that people with certain personal attributes inadvertently generate excessive stress which in turn leads to depression (Liu & Alloy, 2010).

A substantial body of research shows that the onset, course and severity of depression is associated with stress, including acute and chronic stressful life events and recent and early life adversity and loss (Garber, 2010; Goodman & Brand, 2009; Hammen, 2009; Hammen et al., 2010; Harkness & Lumley, 2008; McLeod et al., 2007; Monroe et al., 2009). Early life stress such as rejection and hostility, child abuse, parental depression and parental death may cause childhood depression and render people vulnerable to further episodes of depression in adulthood. In adolescence and adulthood the loss of important relationships, roles and resources may precipitate initial episodes of depression and relapse in recovered patients, or may delay recovery during treatment. Higher levels of stress are associated with more severe depressive symptoms.

As the number of episodes of depression increases, the amount of stress required to precipitate a relapse decreases (Boland & Keller, 2009). This may be due to the neurobiological process of kindling (Monroe & Harkness, 2005) and the cognitive process of rumination

(McLaughlin & Nolen-Hoeksema, 2011). From a cognitive perspective, minor stresses, which might normally lead to small negative mood changes, may give rise to chronic rumination and catastrophizing in people who have previously had depressive episodes, and this rumination and catastrophizing may lead to major negative mood changes and the onset of further episodes of depression. From a neurobiological perspective, for example kindling theory, multiple episodes of depression probably render the neurobiological systems that maintain depression more vulnerable to depressogenic changes in response to minor stresses.

Depressed people are not passive recipients of environmental stress but play an active role in stress generation. Available research indicates that those more likely to generate stress leading to depression are female and have been exposed in early life to child abuse or chronic adversity and have depressive cognitive styles, which will be discussed later in the section on cognitive-behavioural theory (Liu & Alloy, 2010).

Stress theories of depression suggest that any interventions which reduce stress, rumination and self-defeating stress generation routines of children and adolescents will alleviate their depression. These predictions are broadly supported by the results of psychotherapy outcome research (Maalouf & Brent, 2012; Martinez et al., 2012).

Temperament, traits, cognitive biases, coping strategies and interpersonal styles

Hypotheses that variables such as temperament, personality traits, cognitive biases, coping strategies and interpersonal styles render people vulnerable to depression when they encounter stress and adversity or maintain depression will be considered here. Much of the research on these factors has been conducted with adults, although the results are relevant to children and adolescents (Garber, 2010).

Temperament theory. This theory proposes that specific temperamental characteristics confer vulnerability to depression. The Temperament and Character Inventory has been used in much of the research on temperament and depression in adults (Cloninger et al., 1993). This instrument includes four dimensions of temperament: harm avoidance, reward dependence, novelty-seeking and persistence. The structure of temperament in this model has been inferred from genetic studies of personality. Three of the temperamental dimensions are hypothesized to be related to specific neurotransmitter systems of the brain. It is proposed that harm avoidance is subserved by the serotonin system; reward dependence by the noradrenaline system; and novelty seeking by the dopamine system. In a meta-analysis, Kampman and Poutanen (2011) found that the harm avoidance temperamental dimension was strongly associated with current depressive symptoms, and improvements in harm avoidance occurred in treatment studies of major depressive disorder. This finding is consistent with evidence for the central role of dysregulation of the serotonergic neurotransmitter system in depression.

In Watson and Clark's model of temperament a distinction is made between positive and negative emotionality. They have found that depressed adults tend to have high levels of negative emotionality and low levels of positive emotionality (Watson, 2009). In this model negative emotionality is the temperamental dimension that underpins the personality trait neuroticism, whereas the personality trait extraversion is underpinned by the temperamental dimension of positive emotionality. The role of these personality traits in depression will be considered below.

Personality trait theory. This theory proposes that specific personality traits confer vulnerability to depression. In a major meta-analysis, Kotov et al., (2010) investigated correlations between depression and the 'big 5' personality traits in adults. They found that neuroticism was the personality trait most strongly associated with major depressive disorder. There were significant but smaller negative correlations between depression and both extraversion and conscientiousness. Thus, the typical personality trait profile of people with major depressive disorder was characterized by a high level of neuroticism (which entails negative emotionality and distress), introversion (which involves social withdrawal and a lack of positive emotionality) and low conscientiousness (where there is a tendency towards impulsivity and failure to follow through on plans). It is not clear whether this personality profile predisposes people to depression, occurs as a result of depression, or whether depression and the personality profile are the result of some independent factor.

Within both the psychoanalytic and cognitive-behavioural traditions there are hypotheses about the association between specific personality dimensions and vulnerability to depression when faced with specific types of stressors. Within the psychoanalytic tradition, Blatt (2004) has proposed that distinctions may be made between dependant and self-critical forms of depression. Within the cognitive-behavioural tradition, Beck et al., (1983) distinguished between sociotropic and autonomous depressives. In these formulations it is proposed that people with high levels of dependence or sociotropy have strong needs for relatedness and so are vulnerable to depression when faced with loss of important relationships, whereas people with high levels of self-criticism have strong needs for self-definition through achievement and so are vulnerable to depression when faced with failure. Extensive research, mainly on adults, has shown that the personality traits of dependence/sociotropy and self-criticism/autonomy are correlated with depression (Klein et al., 2009; Luyten et al., 2005).

A number of lower-order traits have been found to correlate with depression. These include low self-esteem (Orth et al., 2008), perfectionism (Egan et al., 2011), and shame and guilt (Kim et al., 2011).

Cognitive bias theories. These theories proposes that specific cognitive biases confer vulnerability to depression or maintain depression. Research from experimental psychopathology has consistently found that people with depression show a range of information-processing biases before, during and between depressive episodes at the levels of attention, memory and reasoning that render them vulnerable to depression and maintaining low mood during depressive episodes (Gotlib & Joorman, 2010; Lakdawalla et al., 2007). People with depression are more likely to selectively attend to and remember negative information about the self and the world (Peckham et al., 2010; Phillips et al., 2010). Over-general autobiographical memory – the tendency to remember generalities but not specific details of past events – is also a well-established characteristic of depression, with greater over-general memory being predictive of more severe future depressive symptoms (Sumner et al., 2010). In depression there is also a bias towards pessimistic interpretations of situations, known as depressive cognitive style (Haeffel et al., 2008). Depressive cognitive style and its relationship to helplessness will be discussed later under cognitive theories of depression. Cognitive bias modification is a novel experimental intervention designed specifically to train individuals to replace their depressive (or anxious) cognitive biases with positive biases, using computer-based and other training systems (Woud & Becker, 2014). Preliminary results from analogue studies with adolescents are promising (e.g. Lothmann et al., 2011).

Alongside depression-specific cognitive biases which confer vulnerability to depression, a number of general cognitive deficits arise as a result of depression. In a meta-analysis, McDermott and Ebmeier (2009) found significant correlations between depression severity in adults and a range of cognitive functions including processing speed, episodic memory and executive function but not semantic or visuospatial memory.

Coping strategy theory. This theory proposes that specific coping strategies confer vulnerability to depression or maintain depression, and there is some support for it. In a meta-analysis, Aldao et al., (2010) found that depression was strongly associated with the use of rumination as a coping strategy. With rumination, depressed people repeatedly recycle negative and depressive thoughts and have difficulty disengaging from them. Depression was also correlated, although less strongly, with the use of avoidance and suppression as coping strategies. Aldao et al., (2010) found negative correlations between depression and a number of adaptive coping strategies including problem solving, acceptance and reappraisal.

Interpersonal style theory. This theory proposes that specific interpersonal styles confer vulnerability to depression or maintain low mood. There is considerable evidence that distinctive interpersonal styles are associated with the development and maintenance of depression. In line with Bowlby's (1980) attachment theory, there is evidence that depression is associated with an insecure attachment style arising from childrearing experiences that interfered with the development of attachment security, such as parental rejection, child abuse and neglect, and loss of a parent through bereavement (DeKlyen & Greenberg, 2008; Dozier et al., 2008).

Depressed people tend to have higher levels of dependency and sociotropy, both of which are associated with strong needs for interpersonal closeness, as noted earlier in the section on personality traits (Klein et al., 2009).

Compared with non-depressed people, depressed people have social skills deficits (Joiner & Timmons, 2009). In both quality and content their speech is more negative. They talk more slowly and quietly and with less modulation about more negative things with a greater focus on the self and a reduced focus on the concerns of others. Their non-verbal behaviour is more negative. They engage in less eye contact, show fewer positive emotional facial expressions and more animated negative facial expressions. They also engage in more reassurance seeking and negative feedback seeking than people without depression. Some of these skills deficits predate the onset of depressive episodes and remain after remission.

The interpersonal style of depressed people has a number of consequences (Joiner & Timmons, 2009). It leads to low mood and distress in others who interact with depressed people (known as the depression contagion effect). This in turn may lead others to avoid them, or act in critical, hostile and blaming ways towards them. This negative response involving criticism and hostility, or responding in an over-involved way towards a depressed family member, is referred to as expressed emotion. Depressed people who live in family situations characterized by high levels of expressed emotion, which is very stressful for the depressed person, have been found to relapse more rapidly than those whose families respond to them in a low-key way (Hooley, 2007).

In summary, a temperament characterized by harm avoidance and negative affectivity; the personality traits of neuroticism, introversion and impulsivity (or low conscientiousness); a pessimistic cognitive style; the use of ruminative and avoidant coping strategies; and an interpersonal style characterized by attachment insecurity dependence and limited social skills render people vulnerable to depression, and some of these factors may also maintain depression.

Psychoanalytic theories

Of the many psychoanalytic theories of depression that have been developed, reference will be made here to Freud's (1917) original position, Bibring's (1965) ego-psychological model and Blatt's object-relations formulation (Blatt, 2004). These theories have been selected because they are illustrative of psychodynamic explanations, and Blatt's model has been singled out for attention because, unlike many psychodynamic theories, considerable effort has gone into empirically testing it.

Freud's classical psychoanalytic theory. In Freud's (1917) psychoanalytic theory he proposed that depression arose from self-directed anger which occurred in response to loss of a valued person or attribute. He argued that following a major loss in late adolescence or adulthood such as bereavement (referred to as object loss) regression to the earliest stage of development – the oral stage – occurs. In this regressed state the person functions psychologically like an infant and so a distinction between the self and the lost object is not made. The lost object is introjected and experienced as part of the self. In depression, aggression at the introject of the lost object for bringing about a state of abandonment is experienced as self-directed anger or the self-criticism which characterizes depressed people. People whose primary caregivers either failed to meet their dependency needs during the oral phase and so neglected them, or who were over-indulgent and so did not provide them with opportunities to learn self-sufficiency are predisposed to developing depression according to this model. When they lose a loved one, they feel the loss more acutely than others and are more likely to regress, introject the lost object and experience retroflexive anger. Freud proposed that the loss of valued personal attributes (such as career status) as well as the loss of valued people could symbolize object loss. In Freud's structural personality theory he distinguished between the unconscious id, which represented sexual and aggressive instincts; the super-ego, which represented the internalization of societal norms and standards; and the ego, which represented conscious functions that attempted to reconcile and balance the instincts of the id, the standards set by the super-ego, and the demands of day-to-day life. In depression, the super-ego is the psychological structure which directs anger at the ego. Because the super-ego, which is not fully developed in children, is the psychological structure necessary for directing anger at the ego, the traditional psychoanalytic position entails the view that children are unable to experience depression. This view is unsupported by available epidemiological data. However, Freud's position was important in drawing attention to the significance of loss in depression, a hypothesis which has been supported by subsequent research (Goodman & Brand, 2009; Monroe et al., 2009). There is also good evidence that self-directed anger, in the form of guilt and shame, is strongly associated with depression (Kim et al., 2011). Finally, Freud pointed out the importance of early life experiences in creating a vulnerability to depression, an idea which is central to modern psychodynamic, attachment and cognitive theories of depression, and one that has considerable empirical support (Blatt, 2004; DeKlyen & Greenberg, 2008; Dozier et al., 2008; Garber, 2010; Goodman & Brand, 2009; Gotlib & Joorman, 2010).

Bibring's ego-psychology theory. Bibring (1965), a later psychodynamic ego psychologist, explained depression as the outcome of low self-esteem which resulted from perceiving a large discrepancy between the self as it is and the ideal self. Internalization of harsh critical parental injunctions or perfectionistic parental injunctions during early childhood accounted for the development of a particularly unrealistic ego-ideal. A substantial body of evidence supports the view that low self-esteem is an important correlate and in some instances precursor of depression, and in some cases this is associated with a history of critical or punitive parenting (Blatt, 2004; Orth et al., 2008).

Blatt's object-relations theory. It was noted earlier in the section on personality traits that Blatt (2004) distinguished between two types of depression associated with two distinct types of early parent–child relationships which engender vulnerability to depression when faced with two distinct types of stresses in later life. A vulnerability to stresses involving loss of attachment relationships is central to the anaclitic or dependent type of depression and this has its roots in early experiences of neglectful parenting or loss of parents. A vulnerability to stresses involving loss of autonomy and control is central to the introjective or self-critical, perfectionistic type of depression and this has its roots in early experiences of critical, punitive parenting. This distinction between (1) depression associated with disruption of interpersonal relationships and (2) depression associated with threats to mastering important achievement-oriented tasks has been made by many theorists but has found its clearest articulation in Blatt's work. Dependent and self-critical types of depression may be assessed with Blatt's Depressive Experiences Questionnaire. A growing body of evidence using this instrument has shown that in adults, these sub-types of depression are associated with the recall of different childhood experiences, which have led to the development of different types of depressive object-relations that are typically activated in later life by different types of stressful life events, and lead to the use of different types of defence mechanisms (Blatt, 2004). Children who experience either neglectful parenting or the loss of a parent develop internal working models for later life relationships in which expectations of abandonment are a central feature. For such individuals, denial and repression are the most common defence mechanisms employed to deal with perceived threats. These individuals are particularly vulnerable in later life to stressful events that involve the disruption of relationships such as rejection or bereavement. When they develop a mood disorder it is characterized by a preoccupation with the themes of abandonment, helplessness and a desire to find someone who will provide love. On the other hand, children exposed to critical and punitive parenting develop internal working models for relationships in which the constructs of success and failure or blame and responsibility are central organizing features. Projection or reaction formation are the most common defences used by such individuals. In teenage years and adulthood such individuals are particularly vulnerable to experiences of criticism, failure or loss of control. Their mood disorders are characterized by a sense of self-criticism, inferiority, failure, worthlessness, anger and guilt.

Psychodynamic treatment of depression. Psychodynamic play therapy, short-term psychodynamic psychotherapy and long-term psychoanalysis are the principal treatments that have been developed within the psychoanalytic tradition (American Academy of Child and Adolescent Psychiatry, 2012b). In short-term psychodynamic psychotherapy, which may last for about 20 sessions, the focus is on the main depression-maintaining, self-defeating defences and the therapist plays quite an active role in facilitating therapeutic change. In long-term psychoanalysis, the focus is less circumscribed, and the therapist takes a less active stance which encourages the development to transference. Certain practices are common to most psychoanalytic approaches to depression (Blatt, 2004; McCullough-Vaillant, 1997). Self-defeating defences which lead to depression and which are repeatedly used to regulate anxiety associated with unacceptable unconscious feelings are identified and interpreted.

Blatt's twin themes of dependency and self-criticism typically emerge as central to these repetitive self-defeating and depression-maintaining patterns. McCullough-Vaillant (1997) refers to the defence, the hidden feeling and the associated anxiety as the triangle of conflict. During treatment the psychologist draws attention to the parallels between the way in which the youngster manages the current relationship with the therapist; the past relationship with the parents; and current relationships with other significant people in their lives, such as their peers or teachers. McCullough-Vaillant (1997) refers to these three sets of relationships which are at the heart of transference interpretations as the triangle of person. Interpretations of the triangle of conflict and the triangle of person are offered tentatively, at a stage in the therapy when a strong working alliance has been established, and within the context of a coherent psychodynamic case formulation. The psychologist points out the parallels between the way the young person repeats these patterns which were learned in early parent–child attachment relationships with important people in their current lives and with the therapist. This process is referred to as transference interpretation, because it involves interpreting how patterns learned in one context are transferred to other contexts. Through repeated transference interpretations young people learn to mentalize – that is to understand the mental state of themselves and others – in these depression-maintaining repetitive patterns (Allen et al., 2008). The analytic relationship also provides patients with a forum within which they can repeatedly work through the intense depressive and angry feelings and related anxieties that underpin their problematic defences and ways of managing relationships, rooted in their early attachment experiences. Developing skill at mentalizing and working through previously unacceptable unconscious feelings frees young people to explore more adaptive ways of living their lives. This may involve developing more realistic standards for self-evaluation and/or more trusting ways of engaging in relationships. Evidence from a controlled trial suggests that psychodynamic therapy can alleviate childhood depression (Trowell et al., 2007), and evidence from a series of trials shows that it is effective in treating depression in adults (Driessen et al., 2010).

Cognitive-behavioural theories

Of the many cognitive-behavioural theories of depression, Beck's cognitive theory (Beck, 1976; Weersing & Brent, 2010), Lewinsohn's behavioural theory (Clarke & DeBar, 2010; Lewinsohn et al., 1990, 1994), Rehm's self-control theory (Fuchs & Rehm, 1977; Stark et al., 2010), and Abramson et al.'s (1978) learned helplessness theory are particularly important because they have led to a considerable amount of research on the effectiveness of cognitive-behavioural therapy (CBT) for mood disorders in children, adolescents and adults.

Cognitive theory. According to Beck's (1976) cognitive theory and Brent's adaptation of this theory for young people (Weersing & Brent, 2010), depression occurs when life events involving loss occur and reactivate negative cognitive schemas formed early in childhood as a result of early loss experiences. These negative schemas entail negative assumptions such as 'I am only worthwhile if everybody likes me.' When activated, such schemas underpin the occurrence of negative automatic thoughts, such as 'no one here likes me,' and cognitive distortions, such as all-or-nothing thinking. When a depressed person experiences a drop in mood in a particular situation, according to Beck's theory, this mood change is not due to the situation, but to the negative automatic thought that the situation elicited. The low mood and related depressive behaviour that occur in such situations makes it more likely that other similar situations will recur. These episodes also reinforce depressive schemas.

Negative schemas have their roots in loss experiences in early childhood including:

- loss of parents or family members through death, illness or separation
- loss of positive parental care through parental rejection, criticism, severe punishment, over-protection, neglect or abuse
- loss of personal health
- loss of positive peer relationships through bullying or exclusion from peer groups
- the expectation of loss, for example, where a parent was expected to die of chronic illness.

According to Beck, two negative schemas which contain latent attitudes about the self, the world and the future are of particular importance in depression. The first concerns interpersonal relationships; in the second the central theme is personal achievement. He referred to these as sociotropy and autonomy, as mentioned earlier in the section on personality traits. Individuals who have negative self-schemas where sociotropy is the central organizing theme define themselves negatively if they perceive themselves to be failing to maintain positive relationships. Thus their core assumption about the self may be 'If I am not liked by everybody, then I am worthless.' Individuals who have negative self-schemas where autonomy is the central organizing theme define themselves negatively if they perceive themselves to be failing in achieving work-related goals. Thus their core assumption about the self may be 'If I am not a success and in control, then I am worthless.'

When faced with life stresses, individuals vulnerable to depression because of early loss experience and the related development of negative self-schemas become prone to interpreting ambiguous situations in negative, mood-depressing ways. The various logical errors that they make are referred to as cognitive distortions and these include the following:

- *All or nothing thinking (or dichotomous thinking)*: Thinking in extreme categorical terms. For example, 'Either I'm a success or a failure.'
- *Mental filter (or selective abstraction)*: Filtering out positive aspects of the situation, selectively focusing on the negative aspects of a situation, and drawing conclusions from these. For example, 'I made a mistake earlier today so everything I did today was

wrong.'

- *Over-generalization*: Generalizing from one instance to all possible instances. For example, 'I failed that stats exam so I'll never be any good at stats.'
- *Magnification or minimization*: Exaggerating or under-emphasizing the significance of events. For example, 'He said she didn't like me so that must mean she hates me,' or 'he said he likes me, but he probably doesn't mean it.'
- *Personalization*: Attributing negative feeling of others to the self. For example, 'He looked really angry when he walked into the room, so I must have done something wrong.'
- *Emotional reasoning*: Taking feelings as facts. For example, 'I feel like the future is black so the future is hopeless.'
- *Discounting the positives*: Believing that positive personal characteristics or achievements do not count in overall self-evaluation. For example, 'I passed that exam, but that was just good luck, I'm really no good at stats.'
- *Mind-reading*: Assuming that others are reacting negatively to you without having evidence for this. For example, 'Her silence means that she doesn't like me.'
- *Fortune-telling*: Predicting that things will turn out badly without having evidence to support this. For example, 'I will probably not enjoy the party.'
- *Catastrophizing*: Erroneously predicting extreme distress on the basis of limited evidence. For example, 'My heart is racing. I must be going to have a heart attack.'
- *Labelling*: Identifying completely with situational shortcomings. For example, 'I didn't just make a mistake, I proved that I'm a complete fool.'
- *'Should' and 'must' statements*: Making absolute statements about how the self or others ought to be. For example, 'I should always be perfect and he should be loving.'

Depressed individuals interpret situations in terms of their negative cognitive schemas and so their automatic thoughts are characterized by these depressive cognitive distortions. Automatic thoughts are self-statements which occur without apparent volition when an individual attempts to interpret a situation so as to respond to it in a coherent way.

In cognitive therapy clients learn to monitor situations where negative mood changes occur; to identify negative automatic thoughts that lead to these decreases in mood; to generate alternative positive interpretations of situations in which negative mood changes occur; and to evaluate the validity of these positive and negative views of mood-altering situations. This may involve reflecting on available evidence, or generating evidence by carrying out behavioural tasks and checking the impact of these. For example, attempting to successfully complete a task where failure is expected.

Meta-analyses have shown that with adults, cognitive therapy is as effective as antidepressant medication in alleviating depressive symptoms and more effective in relapse prevention than antidepressant medication (Butler et al., 2006; Hollon et al., 2006), and that CBT is effective in treating depressed adolescents (Martinez et al., 2012). Meta-analyses also show that CBT self-help programmes involving either bibliotherapy or computer-based interventions are effective for treating mild to moderate depression (Andrews et al., 2010; Gregory et al., 2004). Gary O'Reilly's Pesky Gnats programme (http://www.juvenilementalhealthmatters.com/Welcome.html) is an example of a promising computer-assisted CBT intervention for young people.

Mindfulness meditation–based interventions have been incorporated into cognitive therapy because they allow the person to change their relationships with negative automatic thoughts. That is, they come to see them as transient thoughts rather than facts and learn to distance themselves from these thoughts rather than engage with them. Mindfulness-based interventions have been shown to have a positive effect on adults with chronic relapsing depression, and show promise as an intervention for depressed and distressed young people (Harnett & Dawe, 2012).

Beck (2008) has proposed a neurobiological explanation for the effectiveness of CBT. He argues that the generation of negative automatic thoughts is subserved by over-activity in the limbic system, particularly the amygdala, and under-activity of the pre-frontal cortex. This pattern of over- and under-activity of these brain regions arises from both genetic factors and loss experiences in early life. Cognitive therapy alleviates depression by facilitating an increase in activity in the pre-frontal cortex (by encouraging patients to reappraise situations in which the have negative mood changes), which in turn downregulates the over-active limbic system.

Behavioural theory. Lewinsohn proposed that low rates of response contingent positive reinforcement (RCPR) were central to the maintenance of depression. Low RCPC occurs because people with depression lack the social skills required for eliciting rewarding interactions from others. While lack of reinforcement played a central role in Lewinsohn's theory of depression, he also accepted that low mood was maintained by negative cognitions and stress, and the course of depression was affected by the balance of multiple risk and protective factors (Lewinsohn et al., 1985, 1994). Lewinsohn and his team developed the group-based Coping with Depression programme based on this model. There are versions of the programme for both adults and adolescents (Clarke & DeBar, 2010). In the Coping with Depression programme clients learn to monitor their mood, set goals and develop social skills (including communication and social problem solving) necessary for increasing the rate of RCPR in their lives. In addition, they learn to arrange their lives so that they are more active, engage in more pleasant events and have more opportunities for using social skills to obtain RCPR. The Coping with Depression programme also includes relaxation and coping skills training so that clients are better able to deal with negative emotions arising from stressful events. A meta-analysis of the Coping with Depression programme supports its effectiveness with outpatient adolescents and adults (Cuijpers et al., 2009).

Self-control theory. While Lewinsohn's theory focuses predominantly on the role of environmental contingencies in depression, Rehm's self-control theory highlights the importance of internal contingencies. According to Rehm's theory, depression arises from deficits in self-monitoring, self-evaluation and self-reinforcement (Fuchs & Rehm, 1977). Specifically depression arises when a person selectively monitors the occurrence of negative events to the exclusion of positive events; selectively monitors immediate rather than long-term consequences of actions; sets overly stringent criteria for evaluating actions; makes negative attributions for personal actions; engages in little self-reinforcement for adaptive behaviours; and engages in excessive self-punishment. Stark et al.'s (2010) ACTION treatment programme for depressed 9–13 year olds is a downward extension of Rehm's programme for depressed adults. In the ACTION programme young people learn skills required for more effective self-monitoring, self-evaluation and self-reinforcement. They also learn coping, problem-solving and cognitive restructuring skills. Controlled trials support its effectiveness (Stark et al., 2010).

Learned helplessness theory. According to learned helpless theory, depression arises when a person repeatedly fails to control the occurrence of aversive stimuli or has repeated experiences of failure at valued tasks and adopts a cognitive style that involves making internal, global, stable attributions for these failures and external, specific, unstable attributions for success (Abramson et al., 1978). For example, saying 'I failed an exam because I've always been useless at school' is an internal, global, stable attribution for failure. On the other hand, saying 'I failed the exam because the questions were unexpected and I was tired that day' involves attributing failure to partially external, specific, unstable factors. The Penn Resiliency Programme, in which young people are trained in learned optimism, is based on the learned helplessness model (Gillham et al., 2008). In this programme, participants learn to attribute success to internal, global, stable factors, and failure to specific, unstable factors that may be changed by using coping and problem-solving skills which are included in the programme curriculum. The Penn Resiliency Programme rests on the assumption that if people can develop an optimistic cognitive style then they will be less vulnerable to depression. A meta-analysis has confirmed the effectiveness of this programme in preventing depression in at-risk young people (Brunwasser et al., 2009).

Social theories

Interpersonal theory and family systems theory are the most influential social theories of childhood depression.

Interpersonal theory. Interpersonal therapy (IPT), which has developed within the tradition founded by Harry Stack Sullivan (1953), is based on an interpersonal theory of depression. Within this empirically supported theory it is assumed that depression is multi-factorially determined, but that interpersonal difficulties play a central role in the maintenance of depressive symptoms (Jacobson & Mufson, 2010; Mufson et al., 2004). Within IPT for depressed adolescents, it is assumed that five categories of interpersonal difficulties are of particular importance in maintaining depression: (1) grief associated with the loss of a loved one; (2) role disputes involving family members and friends; (3) role transitions such as starting or ending relationships within family, school or peer group contexts, moving houses, graduation, or diagnosis of an illness; (4) interpersonal deficits, particularly poor social skills for making and maintaining relationships; and (5) relationship difficulties associated with living in a single-parent family. In IPT for adolescents, the specific focal interpersonal factors that maintain the youngsters depressive symptoms are addressed within a series of individual child-focused (or in some instances, conjoint) family sessions. Where grief is the central concern, the aim is to facilitate mourning and then help the youngster find relationships and activities to compensate for the loss. Where role disputes are a central factor maintaining depression, the aim is to develop and implement a plan for resolving these conflicts. Where role transitions are a central factor maintaining depression, the aim is to help the youngster mourn the loss of the old role, appreciate the benefits of the new one, and develop a sense of mastery concerning the demands of the new role. Where depression is maintained by difficulties making and maintaining significant relationships the aim is to help youngsters reduce social isolation and form new relationships. Where depression is maintained by single-parent family situations the aim is to help the youngster understand their new family situation, let go of inappropriate guilt feelings concerning parental separation, and develop new role relationships appropriate to the new family situation. A number of controlled trials support the effectiveness of IPT for adolescent depression (Martinez et al., 2012)

Family systems theory. According to family systems theory, depression occurs when the structure and functioning of the family, often in response to stressors, prevents the child from completing age-appropriate developmental tasks, a position supported by considerable evidence (Diamond et al., 2013; Kaslow et al., 2012; McLeod et al., 2007; Stark et al., 2012). Bereavement, parental discord, divorce, abuse and placement in care all disrupt family structure and may lead to depression. Excessive parental criticism, offering attention only when failure occurs and ignoring success may lead to depression. In adolescence, parental over-involvement, family enmeshment and related parent–child conflict over individuation may be associated with depression. Family therapy aims to help family members develop supportive relationships with the depressed child, co-operative family problem-solving skills, and short and long-term goals with a focus on solutions, and to help families create a context within which youngsters can complete age-appropriate developmental tasks such as individuation in adolescence. This is achieved through a series of whole-family meetings and adjunctive sessions for the adolescent alone and the parents alone. A series of trials shows that family therapy is effective for adolescent depression (Kaslow et al., 2012; Stark et al., 2012) and attachment-based family therapy, which focuses on re-establishing a secure attachment between parents and adolescents, is a promising form of family therapy specifically for depressed adolescents (Diamond et al., 2013).

Assessment

In the management of mood problems, the first priority is to assess the risk of self-harm. A structured approach to the assessment and formulation of suicide risk is presented later in this chapter. Once suicide risk has been managed it is appropriate to begin a more thorough assessment.

A second priority is to determine if the depression is a response to a child abuse situation which requires a child protection intervention such as those described in Chapters 19–21. Where children are exposed regularly to physical, sexual, or emotional abuse or neglect, offering a contract for treatment outside of a statutory child protection framework may reinforce the pattern of abuse. This issue is discussed more fully in Chapter 21.

The third priority in cases where children or adolescents present with mood disorders is to clarify the nature and extent of symptomatology. The diagnostic criteria in Table 16.1 and the clinical features in Table 16.3 offer a useful basis for interviewing in this area. Standardized self-report instruments and rating scales that may supplement clinical interviewing are listed in Table 16.5. For research purposes, the depression modules of the standardized diagnostic interview schedules listed in Table 3.3 in Chapter 3 are particularly useful.

The fourth priority is to establish the context within which the depression has arisen. The framework set out in Figure 16.1 may be used as a template for identifying important predisposing, precipitating, maintaining and protective factors that emerge in interviews with the child, the parents, other family members, school staff and significant members of the child's network. What follows is a discussion of the elements contained in that framework which are drawn from the empirical and clinical literature on depression in adolescents and children (Abela & Hankin, 2008; American Academy of Child and Adolescent Psychiatry, 2007c; Brent & Weersing, 2008; Garber, 2010; Goodman & Brand, 2009; Hamilton et al., 2012; Hammen et al., 2010; Klein et al., 2013; Martinez et al., 2012; NICE, 2005c; Nolen-Hoeksema & Hilt, 2009; Rey & Birmaher, 2009; Stark et al., 2012; Verduyn et al., 2009). These areas should be covered within the context of the assessment protocol set out in Chapter 4.

Table 16.5 Psychometric instruments for the assessment of depressed young people

Construct	*Instrument*	*Publication*	*Comments*
	Children's Depression	Polanski, E., & Mokros, H. (1999). *Children's*	A 17-item child and adolescent version of the Hamilton Rating

Depressive symptoms	Rating Scale – Revised (CDRS-R)	*depression rating scale – Revised*. Los Angeles: Western Psychological Services.	Scale useful for assessing change in symptom intensity as rated by an interviewer.
	Childhood Depression Inventory – Second Edition (CDI-2)	Kovacs, M. (2011). *Children's Depression Inventory – Second Edition (CDI-2)*. North Tonawanda, NY: Multi-Health Systems.	A multi-informant child and adolescent depression inventory useful for screening and assessing change in symptom intensity in 7–17 year olds. There are child, parent and teacher versions of the CDI-2. It was designed as a childhood version of the Beck Depression Inventory.
	Reynolds Child Depression Scale (RCDS)	Reynolds, W. M. (1989). *Reynolds Child Depression Scale.* Odessa, FL: Psychological Assessment Resources.	These are 30-item self-report rating scales for evaluating severity of depression in children and adolescents.
	Reynolds Adolescent Depression Scale – Second Edition (RADS-R)	Reynolds, W. M. (2002). *Reynolds Adolescent Depression Scale – Second Edition.* Odessa, FL: Psychological Assessment Resources.	
		Beck, J., Beck, A., & Jolly,	A 20-item self-report measure of depression which is one of a

	Beck Youth Inventories Second Edition – Depression Inventory	J. (2005). *Beck Youth Inventories – Second Edition (BYI- II).* Austin, TX: Psychological Corporation/Pearson.	set of set of Beck Youth Inventories which assess depression, anxiety, anger, disruptive behaviour and self-concept.
Cognitive distortions	Children's Negative Cognitive Error Questionnaire	Leitenberg, H., Yost, L., & Carroll-Wilson, M. (1986). Negative cognitive errors in children: Questionnaire development, normative data, and comparisons between children with and without self-reported symptoms of depression, low self-esteem and evaluation anxiety. *Journal of Consulting and Clinical Psychology, 54*, 528–536	A self-report instrument which assesses cognitive distortions in children based on Beck's model.
	Children's Automatic Thoughts Scale – Negative/Positive (CATS-N/P)	Hogendoorn, S., Wolters, L., Vervoort, L., Prins, P., Boer, F., Kooij, E., & de Haan, E. (2010). Measuring negative and positive thoughts in children: An adaptation of the Children's Automatic Thoughts Scale (CATS). *Cognitive Therapy and Research, 34*, 467–478.	A self-report scale which assesses negative and positive automatic thoughts in children and adolescents.
		Seligman, M., Peterson, C., Kaslow, N.,	A self-report

Depressive attributional style	Children's Attributional Styles Questionnaire	Tanenbaum, R., Alloy, L., & Abramson, L. (1984). Attributional style and depressive symptoms among children. *Journal of Abnormal Psychology, 93*, 235–238.	measure of depressive attributional style based on the reformulated helplessness model.
Self-esteem	Battle Culture-Free Self-Esteem Inventory – Third Edition)	Battle, J. (2002). *Culture-Free Self-Esteem Inventories. Examiner's manual – Third Edition.* Austin, Texas: Pro-Ed.	A multi-dimensional measure of self-esteem which yields scores on academic, social, parental and general self-esteem and includes a lie scale.
Hopelessness	Hopelessness Scale for Children	Kazdin, A., French, N. et al (1983). Hopelessness, depression and suicidal intent among psychiatrically disturbed inpatient children. *Journal of Consulting and Clinical Psychology, 51*, 504–510.	A 17-item self-report hopelessness scale.
Social skills	Matson Evaluation of Social Skills for Youths (MESSY)	Matson, J., Rotatori, A., & Helsel, W. (1983). Development of a rating scale to measure social skills in children: The Matson Evaluation of Social Skills for Youths (MESSY). *Behavioural Research and Therapy, 41*, 335–340.	A 64-item self or teacher report scale which measure social competence and behaviour problems.
		Beck, A., & Steer, R.	A self-report

Suicidal ideation	Beck's Suicidal Ideation Scale	(1991). *Beck Scale for Suicide Ideation*. New York: Psychological Corporation.	measure of suicidal ideation and intent.
	Self-Injurious Thoughts and Behaviours Interview (SITBI)	Nock, M., Holmberg, E., Photos, V., & Michel, B. (2007). Self-Injurious Thoughts and Behaviours Interview: Development, reliability, and validity in an adolescent sample. *Psychological Assessment, 19*, 309–317. nock@wjh.harvard.edu	A comprehensive interview for assessing suicidal ideation, plans and gestures.

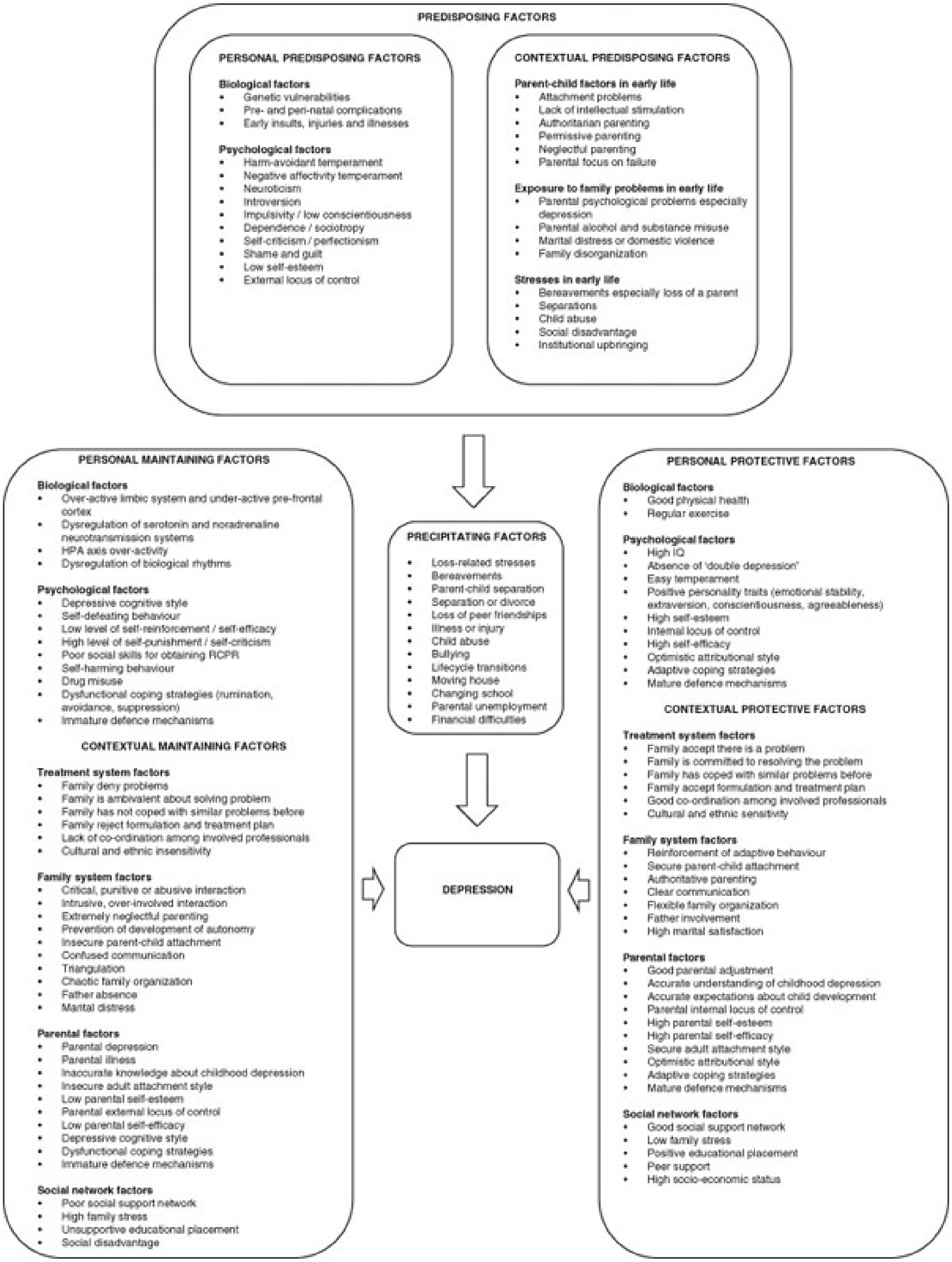


Figure 16.1 Factors to consider in the assessment of depression

Predisposing factors

Both personal and contextual factors may predispose youngsters to developing depression. A genetic vulnerability as indexed by a family history of mood disorders, early loss experiences, exposure to non-optimal parenting experiences and parental depression are among the more important predisposing risk factors for mood disorders. Loss experiences may include health-related losses such as difficulties associated with pre-natal or peri-natal complications and early illness or injury. Psychosocial losses may include bereavements, separations, institutional care, social disadvantage and loss of trusting relationships through abuse. A punitive, critical and authoritarian non-optimal parenting style where the parent focuses on the child's failures rather than his or her successes may render the child vulnerable to depression. The child as a result of such parenting may be sensitized to failure experiences and threats to his or her autonomy. Neglectful parenting, on the other hand, may sensitize the child to loss of relationships and threats of abandonment. Neither of these types of parenting fosters secure attachment and the development of secure internal working models for trusting intimate relationships. Parental depression or drug or alcohol misuse may subserve these problematic parenting styles. Marital discord and family disorganization may also create a context where these types of non-optimal parenting occur. Personal characteristics of the adolescent such as a temperament characterized by harm avoidance or negative affectivity; the personality traits of neuroticism, introversion impulsivity, dependence and perfectionism; shame and guilt; low self-esteem; and an external locus of control may predispose adolescents to developing depression. All of these personal attributes may compromise the young person's capacity to regulate mood, and this in turn may interfere with the development of supportive relationships.

Precipitating factors

Loss experiences associated with the disruption of significant relationships and loss experiences associated with failure to achieve valued goals may precipitate an episode of depression in children and adolescents. Relationships may be disrupted through bereavement, parent–child separations, parental divorce, moving house, moving school, illness, bullying or abuse. Failure to achieve valued goals and threats to autonomy may occur with exam failure and illnesses or injuries that prevent success in sports or leisure activities.

Maintaining factors

Both personal and contextual factors may maintain depression. In the personal domain, a depressive cognitive style is a particularly important depression-maintaining factor. A depressive cognitive style is characterized by negative automatic thoughts and cognitive distortions that arise from negative cognitive schemas, particularly those associated with threats to attachment and autonomy. There is also a selective monitoring of negative aspects of one's actions. With a depressive cognitive style internal, global, stable attributions are made for failure experiences and external, specific, unstable attributions are made for success. Low mood may be maintained by high levels of self-criticism or self-punishment and low self-efficacy beliefs often coupled with low levels of self-reinforcement. Self-defeating behavioural patterns that arise from social skills deficits, particularly engaging others in depressive conversations which lead them to avoid future interactions, may maintain depressed mood. Depression may be maintained or exacerbated by using dysfunctional coping strategies such as rumination, avoidance and suppression, as well as substance misuse and self-harming gestures. Immature defences for dealing with perceived threats such as denial or reaction formation may also maintain depressed mood. At a biological level depression may be maintained by over-activity of the limbic system and under-activity of the dorsolateral pre-frontal cortex; dysregulation of the serotonergic and noradrenergic neurotransmission systems associated with these brain regions; HPA axis over-activity, elevated cortisol levels and reduced immune system efficiency; and abnormal circadian rhythms and sleep architecture.

Within the young person's family or school context a variety of factors maintain mood problems. These include ongoing inescapable abuse, bullying or punishment in the absence of adequate support or being in an unsupportive educational placement. Ongoing interactions with parents or primary carers characterized by excessive criticism, neglect or excessive over-involvement may maintain depression, as may family circumstances where the youngster is blocked from achieving developmental tasks such as developing autonomy. These parenting patterns may be subserved by confused family communication, family disorganization, and triangulation where the depressed youngster is caught between the conflicting parental demands. These types of difficulties may arise in family contexts where parents have high levels of stress including social disadvantage, low levels of social support, marital discord, low father involvement, physical illness, or psychological problems including depression. Where parents have insecure adult attachment styles, low self-esteem, low self-efficacy, an external locus of control immature defences and poor coping strategies, their resourcefulness in managing their children's depression may be compromised. Parents may also become involved in problem-maintaining interactions with their children if they have inaccurate knowledge about the role of psychological factors in the genesis and maintenance of depression.

Within the treatment system, a lack of co-ordination and clear communication among involved professionals including family physicians, paediatricians, nurses, teachers, psychologists and so forth may maintain adolescents' depression. It is not unusual for various members of the professional network to offer conflicting opinions and advice on the nature and management adolescent depression. These may range from viewing the child as psychiatrically ill and deserving inpatient care, antidepressant medication and permissive management to seeing the child as delinquent and requiring strict behavioural control. Where co-operation problems between families and treatment teams develop, and families deny the existence of the problems, the validity of the diagnosis and formulation, or the appropriateness of the treatment programme, then the adolescent's difficulties may persist. Treatment systems that are not sensitive to the cultural and ethnic beliefs and values of the youngster's family system may maintain mood problems by inhibiting engagement or promoting dropout from treatment and preventing the development of a good working alliance between the treatment team, the youngster and his or her family. Parents' lack of experience in dealing with similar problems in the past is a further factor that may compromise their capacity to work co-operatively with the treatment team and so may contribute to the maintenance of the adolescent's difficulties.

Protective factors

The probability that a treatment programme will be effective is influenced by a variety of personal and contextual protective factors. It is important that these be assessed and included in the later formulation, since it is protective factors that usually serve as the foundation for therapeutic change. Youngsters with less severe mood disorders which are clearly episodic are less at risk than those with double depression (severe episodic mood disorder superimposed on a persistent dysthymia). At a biological level, physical fitness and a willingness to engage in regular physical exercise are protective factors. A high IQ, an easy temperament, positive personality traits such as emotional stability, extraversion, agreeableness and conscientiousness, high self-esteem, an internal locus of control, high self-efficacy and an optimistic attributional style are all important personal protective factors. Other important personal protective factors include mature defence mechanisms and functional coping strategies, particularly good problem-solving skills and a capacity to make and maintain friendships.

Within the family, secure parent–child attachment and authoritative parenting are central protective factors, particularly if they occur within the context of a flexible family structure in which there is clear communication and high marital satisfaction and both parents share the day-to-day tasks of managing home life.

Good parental adjustment is also a protective factor. Where parents have an internal locus of control, high self-efficacy, high self-esteem, a secure adult attachment style, an optimistic attributional style, mature defences and functional coping strategies they are better resourced to manage their children's difficulties constructively. Accurate knowledge about the role of psychological factors in recovery from depression is also a protective factor.

Within the broader social network, high levels of support, low levels of stress and membership of a high socio-economic group are all protective factors for depressed adolescents. Where families are embedded in social networks that provide a high level of support and place few stressful demands on family members, then it is less likely that parents' and children's resources for dealing with health-related problems will become depleted. A well-resourced educational placement may also be viewed as a protective factor. Educational placements where teachers have sufficient time and flexibility to attend home–school liaison meetings if invited to do so contribute to positive outcomes for depressed adolescents.

Within the treatment system, co-operative working relationships between the treatment team and the family and good co-ordination of multi-professional input are protective factors. Treatment systems that are sensitive to the cultural and ethnic beliefs and values of the youngster's family are more likely help families engage with and remain in treatment, and foster the development of a good working alliance. Families are more likely to benefit from treatment when they accept the formulation of the problem given by the treatment team and are committed to working with the team to resolve it. Where families have successfully faced similar problems before they are more likely to benefit from treatment, and in this sense previous experience with similar problems is a protective factor.

Formulation

Following thorough assessment interviews, a case formulation may be drawn up which links predisposing, precipitating, maintaining and protective factors to depressive symptomatology, potential treatment goals and possible plans for reaching these.

Treatment

Thorough assessment typically reveals that youngsters' mood problems are maintained by personal factors, family-based factors, school-based factors and possibly factors within the child's wider network. While it is useful for the core intervention to target the child in his or her family, interventions with the school or ward staff in hospitalized cases or focusing on the parents in multi-problem families may be necessary. In the treatment protocol given here, I have attempted to integrate those techniques which have been shown to be effective in the cognitive behavioural literature, with well-established systemic, interpersonal and social learning–based approaches to working with families along with the literature on pharmacological treatment of depression in children and adolescents (Abela & Hankin, 2008; American Academy of Child and Adolescent Psychiatry, 2007c; Brent & Weersing, 2008; Brunwasser et al., 2009; David-Ferdon & Kaslow, 2008; Harnett & Dawe, 2012; Jacobson & Mufson, 2010; Maalouf & Brent, 2012; Martinez et al., 2012; NICE, 2005c; Nolen-Hoeksema & Hilt, 2009; Rey & Birmaher, 2009; Stark et al., 2010; 2012; Verduyn et al., 2009; Weersing & Brent, 2010). The following elements are contained in this approach to treatment:

- psychoeducation
- self-monitoring
- interventions focusing on activity

- interventions focusing on changing family relationships
- interventions focusing on cognition
- social skills and social problem-solving skills training
- school interventions
- medication
- management of parental mood problems
- relapse management.

Psychoeducation

Psychoeducational input is appropriately offered early in the consultation process so that adolescents and their parents share a common understanding of depression with the treatment team. However, throughout therapy it is necessary to remind clients from time to time about various aspects of this way of conceptualizing depression. Depression is explained as a complex condition involving changes in mood, biological functioning, thinking, behaviour and relationships. Vulnerability to depression may be due to genetic factors or early loss experiences. Current episodes of depression arise from a build-up of recent life stresses. These activate the vulnerability which then comes to be maintained by depressed thinking, action and relationships. Genetic vulnerability may be explained as a nervous system that *goes slow* under pressure and disrupts sleep, appetite and energy. This going-slow process leads to depressed mood. Early loss-related vulnerability may be explained as a set of memories about loss that have been filed away but are taken out when a recent loss occurs. The files inform the youngster that more and more losses will occur and this leads to depressed mood. Treatment centres on helping youngsters and their parents learn how to control and change patterns of thinking, action and relationships that maintain depression. It is important to highlight that the youngster's thinking processes or beliefs, behavioural routines and ways of managing relationships which maintain depressed mood are under conscious control, so treatment will focus on coaching the youngster to change these three things. The role of the family is to help the youngster develop new beliefs, routines and ways of managing relationships which protect him or her from becoming stuck in low moods. Within this context, protective factors, particularly social support from the family, may be mentioned. This allows the young person and the family to view themselves as a problem-solving team. A model of this explanation of depression is presented in Figure 16.2 and may be photocopied and given to clients as part of the psychoeducational input.

Somatic state has also been included in the model. Antidepressant medication (SSRIs) may be used to regulate sleep and appetite and increase energy levels in adolescents.

As part of psychoeducation parents may be invited to read *Coping with Depression in Young People. A Guide for Parents* (Fitzpatrick, 2004).

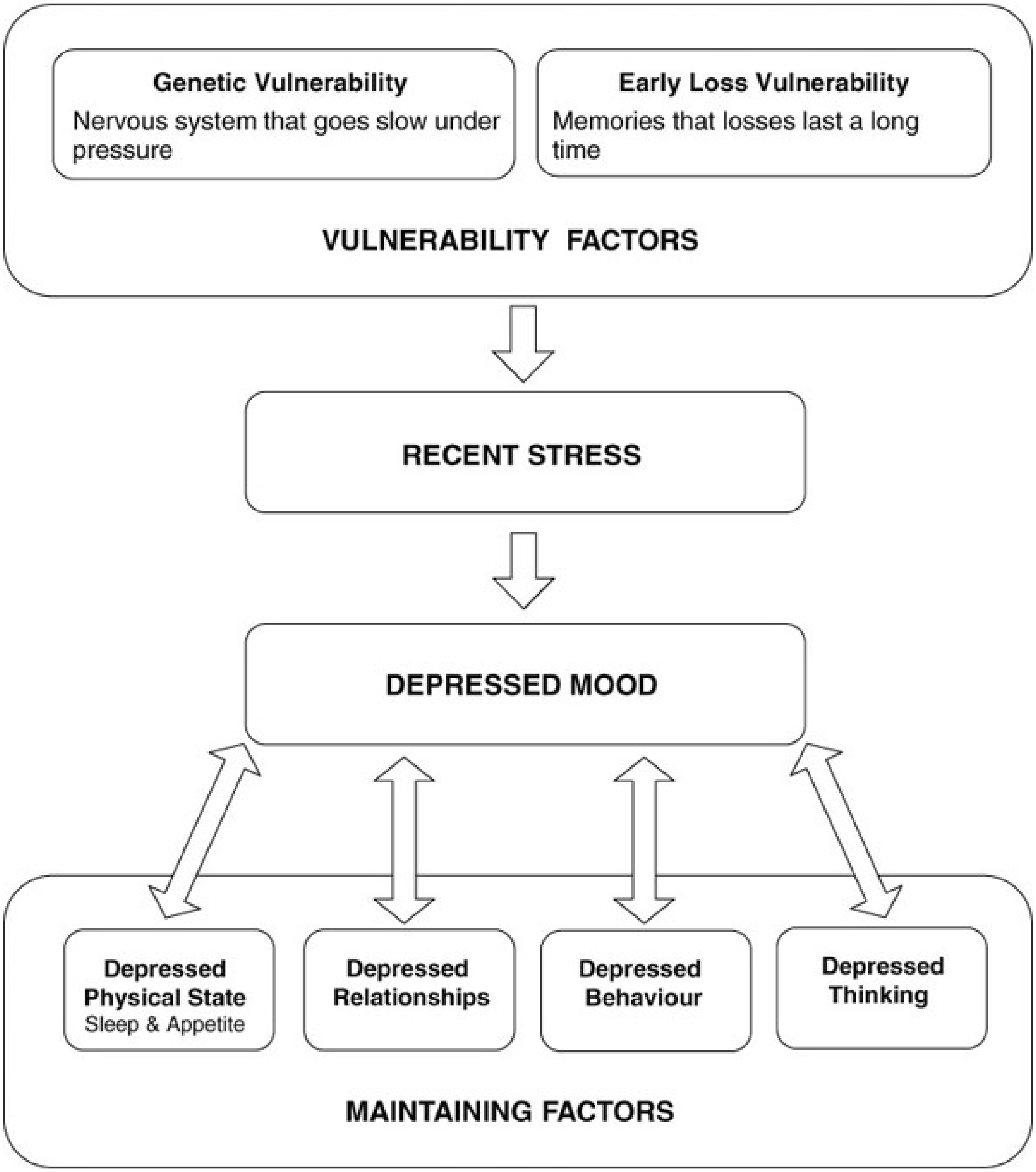


Figure 16.2 Model of depression for psychoeducation

Self-monitoring

Self-monitoring and goal setting may be introduced together in the earliest stages of therapy. The young person and parents are invited to set very small achievable goals which, if reached, would clearly demonstrate that improvement is occurring; for example, having at least one period in the day when the youngster's mood rises at least 1 point on a 10-point scale, or having three periods of a half day in a week when a mood rating of at least 5 was achieved. The idea of tracking progress towards these mood-change goals by diary keeping may be introduced at this point. It is best at this early stage to invite the adolescent to keep a simple type of diary which should be completed each time the young person notices a significant change in mood. The diary may be organized as three columns with the following headings:

- the date and time of the entry
- a mood rating on a 10-point scale
- the activity that preceded the mood rating.

This type of diary helps adolescents and parents develop an awareness of the link between activity and mood. The diary should be reviewed in each session and links made between carrying out particular activities or engaging in particular types of relationships and mood. Young people may find from this type of diary that particular types of events are associated with higher moods. Such events may include physical activity, manageable challenges, co-operative activities and so forth. They may also identify events that lower mood such as inactivity, watching TV, solitary playing of videogames and so forth. This type of self-monitoring provides a basis for introducing a number of interventions associated with scheduling activities associated with higher moods. These include scheduling graded tasks, physical exercise, pleasant events, and age-appropriate challenges and relaxation training, all of which are discussed later. The young person may be invited to complete one or more of these types of tasks both in the session and between sessions and note in their diary the impact of these tasks on their mood.

A more sophisticated approach to diary keeping may be introduced later in therapy in which an additional fourth column is added, where *relationship events* which preceded a mood rating are made. In particular, the person to whom the youngster was most recently talking and the degree to which that relationship or conversation was experienced as supportive or stressful may be noted. This diary should include the following columns:

- the date and time of the entry
- a mood rating on a 10-point scale
- the activity that preceded the mood rating
- the relationship that preceded the mood rating.

Reviews of this type of diary allow teenagers and their parents to track the relationship between mood and certain types of social interaction that commonly occur within the family or peer group. It is not unusual for parents to learn that conversations intended to cheer their child up actually depressed them further, whereas fairly neutral exchanges led to improvements in mood. Family members may also become aware of the negative impact of conflict and triangulation on the teenager by reviewing this type of diary. This type of information provides a basis for relationship-focused interventions including family communication training, family problem-solving training, providing support, and renegotiating role relationships. The impact of using these skills in family conversations on the young person's mood may be tested in treatment sessions and also between sessions and the results noted in the diary.

Later a new column may be added to the diary in which young people record the *thoughts* or ideas that went through their minds and which contributed to their mood rating. Training in capturing negative automatic thoughts and understanding cognitive distortions should precede this self-monitoring assignment and this will be discussed shortly. In this type of self-monitoring task the following five columns should be included in the diary:

- the date and time of the entry
- a mood rating on a 10-point scale
- the activity that preceded the mood rating
- the relationship that preceded the mood rating
- the thoughts that the person had about the activity or relationship that contributed to the mood rating.

Reviewing this type of diary allows the adolescent and family members to see that the young person's interpretation of events contributes to negative mood. This provides a rationale for teaching the Challenge-Test-Reward (CTR) routine for challenging negative automatic thoughts, described in Chapter 12 and in the next section. Conducting this type of training in family sessions is particularly important in families where parents suffer from depression, since it provides such parents with a strategy for being less critical of their depressed child. Many depressed parents attribute negative intentions and qualities to their children who subsequently develop depression, and unless this process can be modified youngsters may find that it contributes to relapses.

When young people have learned to identify negative automatic thoughts, or the 'pessimistic stories depression tells them', this can provide a basis for mindfulness training. Adolescents may be taught to practice focusing their attention on a specific stimulus (for example, their breath) and notice the passing stream of negative and positive thoughts. Developing mindfulness helps young people change their relationship with their depression-inducing negative automatic thoughts. They come to see their negative automatic thoughts not as 'permanent and unalterable facts' but as 'passing and changeable thoughts'. A mindfulness of breathing exercise is given in Figure 16.4.

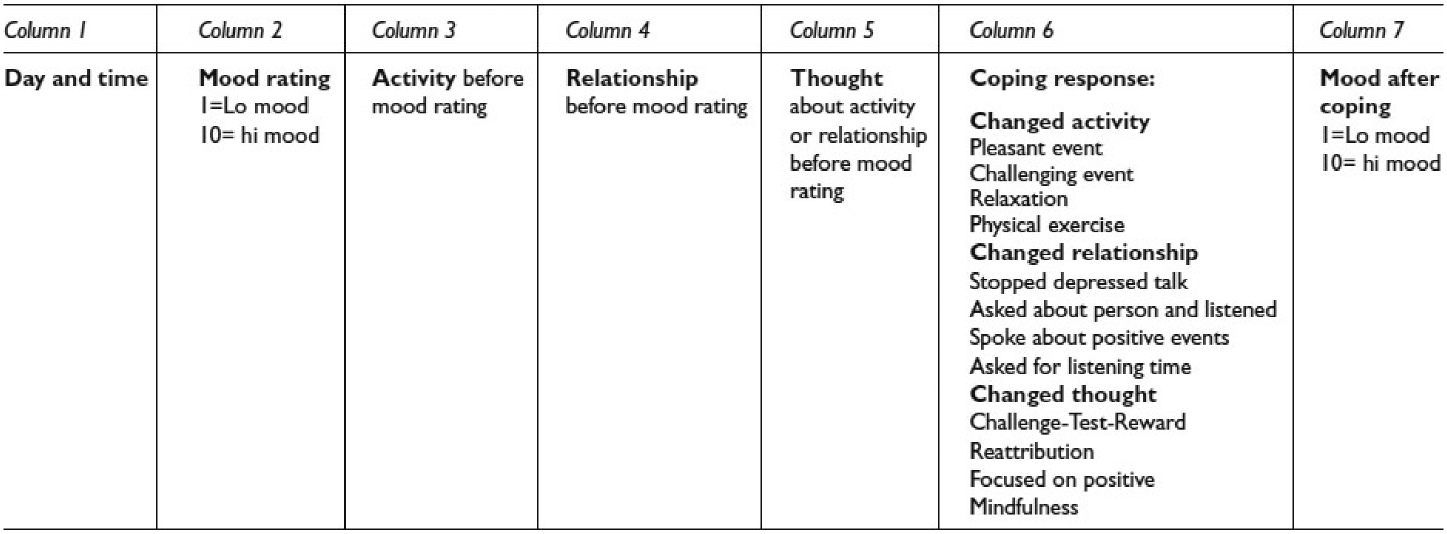
Once youngsters have become proficient in using diaries that allow the impact of activities, relationships and thoughts on mood to be tracked, two additional columns may be added in which coping strategies used to alter mood and the impact of these on mood are noted. A full seven-column diary form is presented in Figure 16.3.

Interventions focusing on activity

Through psychoeducation and diary keeping, adolescents and their families discover that activity directly effects mood. Small tasks, pleasant tasks and age-appropriate challenges all improve mood, whereas large tasks, unpleasant events and being prevented from facing age-appropriate challenges lead to a depressed mood. Physical exercise and relaxation also promote a positive mood. In light of this there are certain interventions which help young people develop activity patterns that improve mood. These include

- scheduling graded tasks
- scheduling pleasant events
- remembering pleasant events
- scheduling age-appropriate challenges
- scheduling physical exercise
- using relaxation skills.

Scheduling graded tasks. Depressed young people may report that there are things that they feel they should do or want to do but believe that they cannot because the tasks appear to be overwhelmingly demanding. In scheduling graded tasks, the young person is invited to break large, apparently impossible tasks into small manageable tasks, complete these and receive reinforcement for doing so. Parents and young people may be invited to work together in a treatment session and break a big task into smaller tasks and agree on a reward system using points or tokens, whereby the adolescent will be reinforced for completing each small component of the large task. Reward systems are described in Table 4.5 in Chapter 4.



Column 1	*Column 2*	*Column 3*	*Column 4*	*Column 5*	*Column 6*	*Column 7*
Day and time	**Mood rating** 1=Lo mood 10= hi mood	**Activity** before mood rating	**Relationship** before mood rating	**Thought** about activity or relationship before mood rating	**Coping response:** **Changed activity** Pleasant event Challenging event Relaxation Physical exercise **Changed relationship** Stopped depressed talk Asked about person and listened Spoke about positive events Asked for listening time **Changed thought** Challenge-Test-Reward Reattribution Focused on positive Mindfulness	**Mood after coping** 1=Lo mood 10= hi mood

Figure 16.3 Self-monitoring form for depression

Scheduling pleasant events. Parents and young people may be invited to draw up lists of pleasant events, such as going for a walk together or watching a film, which the adolescent believes are associated with improved mood, and plan to carry these out.

Remembering pleasant events. Parents may be shown how to help young people review their day and remember all the positive things that have happened, list them, and post them on the fridge door or the child's bedroom wall.

Scheduling age-appropriate challenges. Where adolescents and their parents have become entrenched in patterns of interaction appropriate to the pre-adolescent stage of development, they may be invited to arrange for adolescents to gradually work towards dealing with age-appropriate challenges. These may include travelling independently to meet with friends, shopping for their own clothes, staying overnight at a friend's house and so forth.

Scheduling physical exercise. Young people and their parents may be invited to gradually increase the amount of daily physical exercise the teenager takes, since inactivity maintains low mood and regular exercise, particularly aerobic exercise, improves mood.

Using relaxation skills. Young people may be trained either directly or through their parents in using the relaxation, breathing and visualization skills described in Chapter 12. These skills are particularly useful where the youngster experiences irritability and anxiety as part of their mood disorder. They may also be used to help with difficulties falling asleep. Adolescents may be invited to make a recording of relaxation exercises practiced in a therapy session and use this to help them go to sleep. Parents may be shown how to help depressed young children practice relaxation exercises at bedtime to facilitate sleep onset.

Interventions focusing on family relationships

Both preliminary assessment interviews and the results of self-monitoring tasks typically provide evidence that the adolescent's mood is influenced by family relationships, notably those characterized by confusing communication, conflict, criticism, over-involvement and triangulation. Furthermore, role-relationship difficulties associated with family transitions including the onset of adolescence, parental separation, bereavements and so forth may contribute to depression. On the other hand, parental support, clear communication, non-conflictual approaches to solving relationship problems and clear roles tend to be associated with positive moods. The following interventions may be used to promote the types of family relationships which improve mood:

- communication and problem-solving skills training
- facilitating support
- re-negotiating role relationships.

Communication and problem-solving skills training. Guidelines for training family members in communication skills and problem-solving skills are given in Tables 4.2 and 4.3 in Chapter 4. With communication training, where the core skills are turn-taking, making points unambiguously, listening, summarizing and checking the accuracy of what was heard, a central difficulty that many families containing depressed teenagers have is avoiding mind-reading. That is, it is not unusual during communication training for depressed parents to attribute negative intentions and ideas to their depressed adolescents and vice versa. The challenge in communication training is to coach family members in avoiding this pitfall by listening carefully and accepting what is said on face value. With problem-solving training the main steps are defining big difficult problems as a number of small solvable problems, addressing these one at a time, brainstorming options uncritically, and then selecting the best option. A difficulty in families where there is depression is the premature criticism of possible solutions. This creates a culture within which no one ventures new ideas lest they be criticized. Family members require careful coaching in the skill of delaying evaluation of options until a large number have been generated. Without this, creative solutions to family problems which maintain the adolescent's depression may be more difficult to find.

Facilitating support. Parents, siblings and adolescents may be invited to engage in supportive conversations for time-limited periods such as 30 minutes at a set time each day. The role of the supportive parent or sibling is to use listening skills learned in the communication training exercise and do no more than summarize what the depressed adolescent has said and check that they have understood the adolescent correctly. No attempt should be made by the parent or sibling to cheer depressed adolescents up or to make suggestions about how they might solve their problems. Parents and siblings require coaching in this very difficult skill, since even the most patient parent or sibling will have urges to talk the adolescent out of his or her depression.

Re-negotiating role relationships. Role-relationship difficulties which maintain depression may be characterized by over-involvement, criticism and problems associated with divided loyalties. What follows are some strategies for renegotiating these problematic role relationships. Where parents have become over-involved with their child and regularly engage in intrusive interactions, this non-supportive pattern may be disrupted by offering them the opportunity of having a break from caring for the depressed child by passing the responsibility of caring for the depressed adolescent over to the less involved parent. This type of intervention may be particularly useful in families where the over-involved parent is inadvertently blocking the adolescent's completion of age-appropriate developmental tasks such as developing autonomy and maintaining privacy. In such instances often the more the peripheral parent argues for the over-involved parent to allow the adolescent some space, the more over-intrusive the over-involved parent becomes. This intervention of placing the peripheral parent in charge of the adolescent's welfare disrupts this pattern of triangulation.

Where parents have become highly critical of the depressed adolescent, the parent and child may be encouraged to join forces to overcome the depression. Depression may be externalized and personified as a black dog, a black knight, a dragon, a monster or some other mythological entity. The central feature of the intervention is that the parent and child form a strong alliance against the depression so the child feels supported by the parent. I have found this intervention particularly useful in families where one parent (typically the father) has become very critical of the child, while the other parent (typically the mother) sympathizes with the child's position.

In families where parents are separated or divorced, depressed adolescents often find the experience of divided loyalties very distressing. They feel that they must choose between being loyal to one parent or to the other, but either of these positions entails the loss of a relationship with a parent. This experience of divided loyalties is exacerbated when a parent expresses their anger and disappointment concerning their ex-partner to the adolescent. In such instances, with coaching from the psychologist, the adolescent may be helped to explain to the parents the extraordinary anguish that this type of triangulation causes. The adolescent may then ask the parents to make a commitment never to ask them to take sides again because they love both parents and want to maintain good relationships with both of them. Where adolescents have difficulty facing their parents and saying this, they may write them a letter containing these sentiments and read it out to the parents in the session. The parents in reply may be coached to agree to the adolescent's request. Where parents cannot consent to this, it is vital that they understand the consequences of this for the adolescent, that is, chronic psychological problems including depression. A fuller discussion of the impact of chronic parental divorce–related conflict on children's development is contained in Chapter 23, which deals with divorce.

Interventions focusing on cognition

The techniques described in this section are family-based variations of interventions developed for use with individual adults in cognitive therapy. Because young people's belief systems are inextricably bound up with their parent's belief systems, I have found that this family-based approach to cognitive therapy is particularly useful with children and adolescents. Interventions which focus on cognitions begin by teaching both parents and young people to identify automatic thoughts and their impact on mood. The adolescent and parents may be asked to give a current mood rating on a 10-point scale and then identify the thought they are telling themselves that accounts for that rating. A challenge may then be posed to the youngster to complete a difficult arithmetic problem or puzzle. After trying to solve the problem for a minute or so, the psychologist may then ask the adolescent to give a mood rating and the automatic thought that underpins it. Usually, there will be a drop in mood associated with a negative thought arising from failure to solve the puzzle. In this way the link between automatic thoughts and mood is established. It may be pointed out that the automatic though (for example, 'Because I can't do it quickly I'm stupid') could conceivably be replaced with another thought ('If I had a calculator I'd be finished now') that might lead to a less depressed mood rating. The adolescent may be invited to keep track of automatic thoughts and related mood states using the self-monitoring system described earlier. Reviewing self-monitoring forms throws light on situations that led to mood changes and the automatic thoughts that occurred in these situations. Parents and adolescents may be helped to develop specific routines for challenging or neutralizing the effects of negative automatic thoughts. Four methods deserve particular mention:

- the Challenge-Test-Reward (CTR) method
- reattribution training
- focusing on positives
- mindfulness meditation.

Challenge-Test-Reward (CTR) method. Challenging negative automatic thoughts involves generating alternative self-statements that could have been made to in a specific situation in which a negative automatic thought occurred and then looking for evidence to test the validity of these alternatives. Finally, when this task has been completed and the youngster shows that the depressive automatic thought was invalid, he or she engages in self-reward or self-reinforcement. So for example, one alternative to the automatic thought ‘he didn’t talk to me so he doesn’t like me’ is ‘he didn’t talk to me because he is shy.’ If there is evidence that the person in question never injured me before and on a couple of occasions smiled at me, then the more valid statement is that the person is shy. I may reward myself for challenging and testing this automatic thought by telling myself that I have done a good job of testing my automatic thought.

The CTR method may be taught within family sessions and the family may be asked to think about how much evidence there is for each of a series of negative automatic thoughts and possible alternatives. They may then be coached in praising themselves for testing out the alternatives efficiently. Parents may be invited to prompt adolescents to use their CTR skills in situations where low mood occurs.

Reattribution training. Challenging depressive attributions is a second strategy for reducing the impact of negative automatic thoughts. In particular failure situations, which have led to automatic thoughts, the parents and the young person are asked to rate the degree to which the negative automatic thought reflects an internal, global, stable attribution: For example the automatic thought ‘I couldn’t do the problem because I’ve always been completely stupid’ might receive the following ratings:

Internal Due to me	**(1)** 2 3 4 5 6 7 8 9 10	**External** Due to circumstances
Global To do with many situations	1 **(2)** 3 4 5 6 7 8 9 10	**Specific** To do with this situation
Stable		**Unstable**

Is permanent	**(1)** 2 3 4 5 6 7 8 9 10	Is temporary

An alternative self-statement such as ‘I couldn’t do the problems because it’s very hard and I’m having a bad day’ might receive the following ratings which characterize an optimistic rather than a depressive cognitive style:

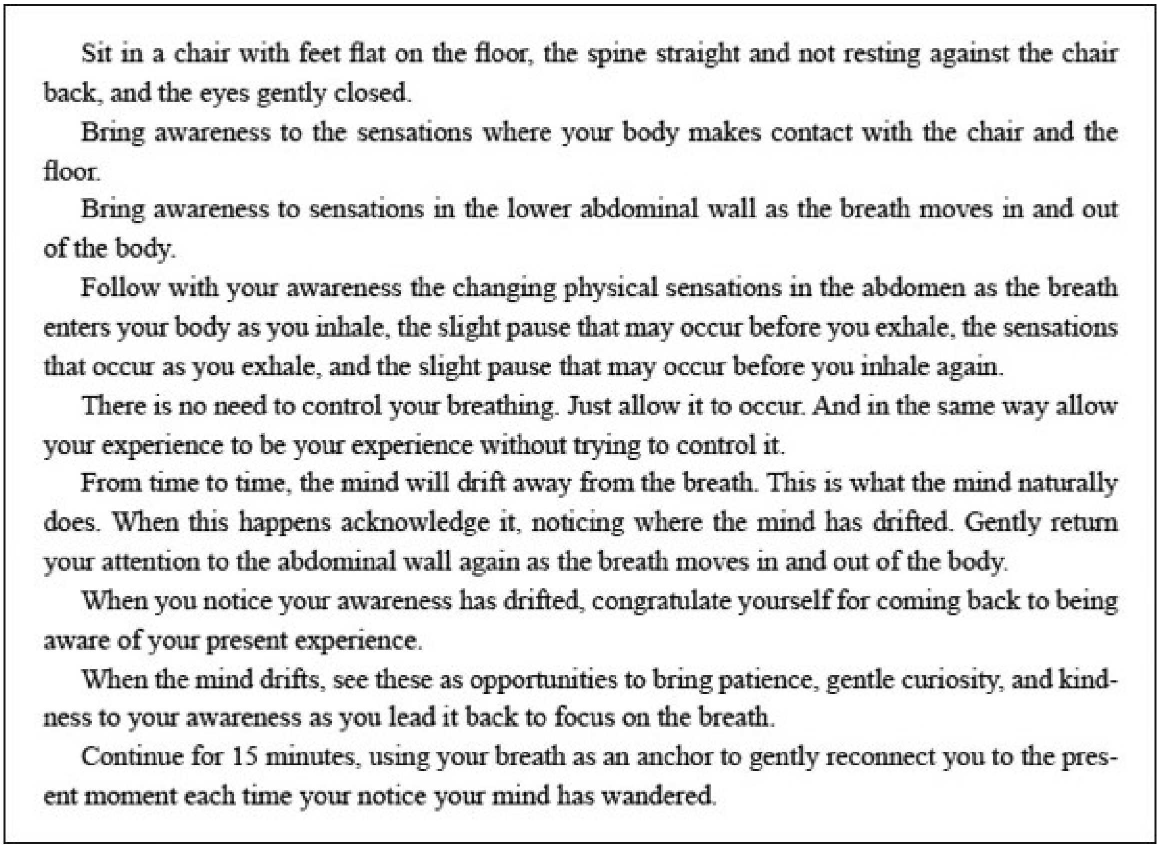
Internal Due to me	1 2 3 4 5 6 7 8 9 **(10)**	**External** Due to circumstances
Global To do with many situations	1 23 4 5 6 7 8 **(9)** 10	**Specific** To do with this situation
Stable Is permanent	1 2 3 4 5 6 7 8 9 **(10)**	**Unstable** Is temporary

Young people and their parents may be trained to ask of each internal, global, stable explanation for failure, if alternative external, specific, unstable alternative explanations may be offered which fit the available evidence.

Focusing on positives. Where adolescents selectively attend to negative aspects of their situation and then criticize themselves, they and their parents may be shown how to focus in positives. They may shown in a therapy session how to complete a mildly challenging activity like watering the plants while engaging in positive self-monitoring, self-evaluation and self-reinforcement. This involves giving a private running commentary like this” ‘I’m watering the plants’ (positive self-monitoring); ‘I’m doing a good job, really carefully’ (positive self-evaluation); ‘Nice work!’ (positive self-reinforcement). Adolescents and their parents may then be invited to jointly complete this type of routine at home.

Mindfulness meditation

With mindfulness meditation adolescents learn to decentre or distance themselves from their thinking processes. They learn, ‘I am not my thoughts and my thoughts are not the truth or reality; they are simply thoughts.’ Adolescents may be shown in therapy sessions how to practice the mindfulness of breathing exercise in Figure 16.4 and invited to set aside periods of 15 minutes twice a day to practice this exercise at home. As thoughts, feelings and bodily sensations arise during this exercise, however pleasant or unpleasant, adolescents are invited to acknowledge their occurrence in a welcoming, invitational and friendly way, but then let them go without trying to change or fix them. This mindfulness practice helps adolescents detach themselves from all types of ideas and sensations that enter consciousness. This is helpful in allowing them to let go of negative automatic thoughts when they arise. The attitude of mindfulness prevents adolescents from getting stuck in vicious cycles of catastrophic thinking central to the depressive experience or in personal battles centred on trying to find evidence for positive interpretations and against negative interpretations of situations. With mindfulness there is no attempt to prevent the occurrence of negative thoughts or decreases in mood. Rather, the focus is on observing these negative thoughts and feelings and then letting them pass.



Sit in a chair with feet flat on the floor, the spine straight and not resting against the chair back, and the eyes gently closed.

Bring awareness to the sensations where your body makes contact with the chair and the floor.

Bring awareness to sensations in the lower abdominal wall as the breath moves in and out of the body.

Follow with your awareness the changing physical sensations in the abdomen as the breath enters your body as you inhale, the slight pause that may occur before you exhale, the sensations that occur as you exhale, and the slight pause that may occur before you inhale again.

There is no need to control your breathing. Just allow it to occur. And in the same way allow your experience to be your experience without trying to control it.

From time to time, the mind will drift away from the breath. This is what the mind naturally does. When this happens acknowledge it, noticing where the mind has drifted. Gently return your attention to the abdominal wall again as the breath moves in and out of the body.

When you notice your awareness has drifted, congratulate yourself for coming back to being aware of your present experience.

When the mind drifts, see these as opportunities to bring patience, gentle curiosity, and kindness to your awareness as you lead it back to focus on the breath.

Continue for 15 minutes, using your breath as an anchor to gently reconnect you to the present moment each time your notice your mind has wandered.

Figure 16.4 Mindfulness of breathing

Social skills and social problem-solving skills training

Group activity programmes and a group therapy format may be used to help teenagers develop social skills so that they can initiate and maintain positive interactions with peers. Common problems with depressed teenagers include avoidance of initiating conversations engaging in depressive, self-critical or pessimistic talk which other teenagers find aversive and withdrawing from complex social situations. These difficulties in turn lead to exclusion from peer-group activities. Social skills training should aim to help young people learn strategies for tracking peer group conversations, identifying opportunities for contributing, making contributions to conversations and activities that benefit themselves and others, and generating solutions to complex social situations. Young people may be coached in social skills by first being given a rationale for the skill, next by observing a model of the appropriate skill, and then practicing it and receiving verbal or videotaped corrective feedback and reinforcement.

A useful rationale is to explain that most peer groups want new members that are going to give something good (like companionship or good humour) rather than take something away (like replacing a good mood with a bad mood). When you are depressed, this takes some planning because the depression forces you to give nothing and take away any good mood there is. Coaching in social skills is a way of beating depression by planning to give companionship and good humour rather than taking it away. In the long run using social skills may lead to getting some friendship back.

Following this type of rationale, the psychologist may show a videotape of an appropriate and inappropriate way of initiating a conversation or a conversation in which a youngster gives good humour or engages in depressive talk. In some of our groups I have recorded clips from TV programmes to use as models. In others, I and my colleagues modelled the interactions ourselves.

With rehearsal, youngsters are invited to imitate the behaviour demonstrated by the model. It is important that all approximations to positive social skills be praised and suggestions for improvement be made tactfully. In my clinical experience, video-recorded feedback is only useful when significant improvement has been made which can clearly be pointed out to the youngster viewing the recording. If their performance is poor, the process of watching themselves engage in poor social skills on video may exacerbate their depression.

Once basic social skills such as joining, initiating and maintaining conversations have been mastered, training in social problem solving may begin. Here, young people generate a list of difficult social situations that they fear handling such as being criticized, snubbed, laughed at or embarrassed and are asked to generate as many possible alternative ways of dealing with these problems as possible. Positive and negative possible outcomes of all these options may be explored and the group may then be coached in how to implement the most favourable solution. Again, video clips from soap operas and group members' favourite TV programmes may be used to illustrate difficult peer-group interactions and solutions to these interpersonal problems.

School interventions

Work with the school should help the child's teacher understand the formulation and develop supportive patterns of interaction with the child. Where children have become withdrawn, teachers may be helped to create opportunities where the depressed child can interact with peers.

Medication

In cases where psychosocial interventions alone have been ineffective, SSRIs should be included as a key element in a multi-modal treatment programme. Prescription of antidepressants and the monitoring of side-effects is usually the responsibility of a physician (GP, psychiatrist or paediatrician) who shares the care of a client with a clinical psychologist.

Management of parental mood problems

Many youngsters referred for treatment come from families where one or both parents are depressed. In such instances, it is important to insure that depressed parents are referred immediately for treatment, so that they will be better able to engage effectively in family work to help their youngsters recover. Interventions which focus on parental mood problems, a reduction of parental stress and the amplification of parental support should be prioritized if it is clear from the formulation that these factors will compromise the parent's capacity to help the adolescent recover.

Where particular life stresses and support deficits such as marital conflict, conflict within the extended family, social isolation, inadequate accommodation, financial difficulties, work related difficulties and so forth are severe enough to prevent any therapeutic progress, in a minority of instances it may be necessary to address these first. However, where possible, the focus of the work should be on helping the family to help the child recover. Success with this goal may increase parental self-efficacy so that they are empowered to tackle their other life difficulties with greater confidence. A protocol for the treatment of adult depression is given in Carr and McNulty (2016).

Relapse management

Depression is a recurrent disorder, and while 90% of episodes may resolve with intensive short-term intervention within 12 months, most children relapse. Therefore brief therapy must be offered within the context of a longer-term care programme. Children and parents may be trained to identify and cope with relapses and invited to re-contact the clinical psychology service in the event of a further episode of depression.

Managing resistance

A central guideline for working with depressed adolescents is to set tasks where there is a very high chance of success. So, psychoeducational input should be pitched at the youngsters' ability level. Easy self-monitoring tasks should be given before progressing to more complex ones. Simple and small homework assignments focusing on activities, relationships and cognitions should be given first before moving on to more challenging invitations. Where youngsters have difficulty completing tasks, responsibility for this should be taken by the psychologist, who probably asked more of the youngster and the family than they were ready for. It is very easy when working with depressed youngsters from families in which one of the parents is depressed to fall into a pattern of criticism and blaming the family for lack of progress. The challenge is to establish and maintain a good working alliance and find a pace of work which suits the family.

Bipolar disorder

Bipolar disorder is a chronic relapsing condition characterized by episodes of mania or hypomania and by episodes of depression (American Academy of Child and Adolescent Psychiatry, 2007d; Baroni et al., 2009; Birmaher, 2013; British Psychological Society, 2010; Leibenluft & Dickstein, 2008; Leibenluft & Rich, 2008; NICE, 2014). The ICD-10 and DSM-5 diagnostic criteria for bipolar disorder are given in Table 16.6. For a DSM-5 diagnosis, an episode of elevated manic or hypomanic mood is required; for an ICD-10 diagnosis, two episodes of mood disorder are required involving either elevated or depressed mood. A distinction is made between cases characterized by at least one manic episode (bipolar I) and cases characterized by both depressive and hypomanic episodes, but without manic episodes (bipolar II). Bipolar I disorder is the classic prototype of what was historically known as manic-depression.

Table 16.6 Definitions of bipolar disorder

DSM-5	*ICD-10*
Bipolar I Disorder. At least one manic episode. Manic and depressive episodes are not better explained by another disorder (e.g., a schizophrenia spectrum disorder). **Bipolar II Disorder**. One or more episodes of both hypomania and depression, but no manic episodes, which together cause	

clinically significant distress or functional impairment. Episodes are not better explained by another disorder (e.g., a schizophrenia spectrum disorder).	Bipolar disorder is characterized by repeated (i.e. at least two) episodes in which the patient's mood and activity levels are significantly disturbed, this disturbance consisting on some occasions of an elevation of mood and increased energy and activity (mania or hypomania), and on others of a lowering of mood and decreased energy and activity (depression). Characteristically, recovery is usually complete between episodes, and the incidence in the two sexes is more nearly equal than in other mood disorders. As patients who suffer only from repeated episodes of mania are comparatively rare, and resemble (in their family history, pre-morbid personality, age of onset, and long-term prognosis) those who also have at least occasional episodes of depression, such patients are classified as bipolar. Manic episodes usually begin abruptly and last for between 2 weeks and 4–5 months (median duration about 4 months). Depressions tend to last longer (median length about 6 months), though rarely for more than a year, except in the elderly. Episodes of both kinds often follow stressful life events or other mental trauma, but the presence of such stress is not essential for the diagnosis. The first episode may occur at any age. The frequency of episodes and the pattern of remissions and relapses are both very variable, though remissions tend to get shorter as time goes on and depressions to become commoner and longer lasting after middle age.
Manic Episode A. A distinct period of abnormally and persistently elevated, expansive, or irritable mood and abnormally and persistently increased goal-directed activity or energy lasting at least a week and present most of the day, nearly every day (or any duration if hospitalization is necessary). B. During the period of mood disturbance and increased energy or activity, 3 (or more) of the following symptoms (4 if	**Manic episode** Distinctions are made between hypomania, mania and mania with psychotic symptoms, mixed episodes and depressive episodes (described in Table 16.1). **Mania**. Mood is elevated out of keeping with the individual's circumstances and may vary from carefree joviality to almost uncontrollable excitement. Elation is accompanied by increased energy, resulting in over-activity, pressure of speech, and a

the mood is only irritable) are present to a significant degree and represent a noticeable change from usual behaviour: 1. Inflated self-esteem or grandiosity 2. Decreased need for sleep 3. More talkative than usual or pressured speech 4. Flight of ideas or racing thoughts 5. Distractibility 6. Increased goal-directed activity or psychomotor agitation 7. Excessive involvement in activities that have a high potential for painful consequences (e.g. buying sprees or sexual indiscretion)	decreased need for sleep. Normal social inhibitions are lost, attention cannot be sustained, and there is often marked distractibility. Self-esteem is inflated, and grandiose or over-optimistic ideas are freely expressed. Perceptual disorders may occur, such as the appreciation of colours as especially vivid (and usually beautiful), a preoccupation with fine details of surfaces or textures, and subjective hyperacusis.

C. Causes

functional impairment or leads to hospitalization to prevent harm to self or others, or there are psychotic features.

D. Not due to the physiological effects of a substance, or a medical condition (although may be precipitated by antidepressants or ECT).

Hypomanic Episode

A. A distinct period of abnormally and persistently elevated, expansive, or irritable mood and abnormally and persistently increased goal-directed activity or energy lasting at least 4 consecutive days and present most of the day, nearly every day.

B. During the period of mood disturbance and

The individual may embark on extravagant and impractical schemes, spend money recklessly, or become aggressive, amorous, or facetious in inappropriate circumstances. In some manic episodes the mood is irritable and suspicious rather than elated. The first attack occurs most commonly between the ages of 15 and 30 years, but may occur at any age. The episode should last for at least 1 week and should be severe enough to disrupt ordinary work and social activities more or less increased energy or activity, 3 (or more) of the following symptoms (4 if the mood is only irritable) are present to a significant degree and represent a noticeable change from usual behaviour and have been present to a significant degree:

1. Inflated self-esteem or grandiosity
2. Decreased need for sleep
3. More talkative than usual or pressured speech
4. Flight of ideas or racing thoughts
5. Distractibility
6. Increased goal-directed activity or psychomotor agitation
7. Excessive involvement in activities that have a

completely. The mood change should be accompanied by increased energy and several of the symptoms referred to above (particularly pressure of speech, decreased need for sleep, grandiosity, and excessive optimism).

Hypomania. Hypomania is a lesser degree of mania, in which abnormalities of mood and behaviour are too persistent and marked to be included under cyclothymia but are not accompanied by hallucinations or delusions. There is a persistent mild elevation of mood (for at least several days on end), increased energy and activity, and usually marked feelings of well-being and both physical and mental efficiency. Increased sociability, talkativeness, over-familiarity, increased sexual energy, and a decreased need for sleep are often present but not to the extent that they lead to severe disruption of work or result in social rejection. Irritability, conceit, and boorish behaviour may take the place of the more usual euphoric sociability. Concentration and attention may be impaired, thus diminishing the ability to settle down to work or to relaxation and leisure, but this may not prevent the appearance of interests in quite new ventures and activities, or mild over-spending. Hypomania covers the range of disorders of mood and level of activities between cyclothymia and mania. The increased activity and restlessness (and often weight loss) must be distinguished from the same symptoms occurring in hyperthyroidism and anorexia nervosa; early states of “agitated depression” may bear a superficial resemblance to hypomania of the irritable variety.

    high potential for painful consequences (e.g. buying sprees or sexual indiscretion)

C. The episode is associated with an unequivocal change in functioning that is uncharacteristic of the individual when not symptomatic.

D. The mood disturbance and change in functioning is observed by others.

E. Does not cause marked functional impairment, psychotic features or hospitalization.

F. Not due to the physiological effects of a substance, or a medical condition (although may be precipitated

Mania with psychotic symptoms. The clinical picture is that of a more severe form of mania as described above. Inflated self-esteem and grandiose ideas may develop into delusions, and irritability and suspiciousness into delusions of persecution. In severe cases, grandiose or religious delusions of identity or role may be prominent, and flight of ideas and pressure of speech may result in the individual becoming incomprehensible. Severe and sustained physical activity and excitement may result in aggression or violence, and neglect of eating, drinking, and personal hygiene may result in dangerous states of dehydration and self-neglect. One of the commonest problems is differentiation of this disorder from schizophrenia, particularly if the stages of development through hypomania have been missed and the patient is seen only at the height of the illness when widespread delusions, incomprehensible speech, and violent excitement may obscure the basic disturbance of affect. Patients with mania that is responding to neuroleptic medication may present a similar diagnostic problem at the stage when they have returned to normal levels of physical and mental activity but still have delusions or hallucinations.

Mixed episode. Although the most typical form of bipolar disorder consists of alternating manic and depressive episodes separated by periods of normal mood, it is not uncommon for depressive mood

by antidepressants or ECT).	to be accompanied for days or weeks on end by over-activity and pressure of speech, or for a manic mood and grandiosity to be accompanied by agitation and loss of energy and libido. Depressive symptoms and symptoms of hypomania or mania may also alternate rapidly, from day to day or even from hour to hour.

Note: The DSM-5 (APA, 2013) diagnostic guidelines are given above, not diagnostic criteria. Reprinted with permission from DSM-5 (APA, 2013), Copyright 2013. ICD-10 guidelines are adapted from ICD-10 (WHO, 1992, 1996). Criteria for a depressive episode are given in Table 16.1.

Clinical features and differential diagnosis

There is now a consensus that for a diagnosis of bipolar disorder, young people must meet the DSM and ICD criteria in Table 16.6. During manic and hypomanic episodes young people show inflated self-esteem or grandiosity, pressure of speech, flight of ideas or racing thoughts, distractibility, increased goal-directed activity or psychomotor agitation and decreased need for sleep. During depressive episodes they show depressed mood, anhedonia, decreased or increased appetite and associated weight loss or gain, sleep disturbance, psychomotor agitation or retardation, fatigue, feelings of worthlessness or excessive guilt, poor concentration and recurrent suicidal ideation or intent. There are developmental differences in the clinical presentation of bipolar disorder, with older adolescents having more classic manic and depressive symptoms and distinct episodes, whereas children with tend to have more mixed and rapid cycling presentations. This in part accounts for the controversy concerning the diagnosis of bipolar disorder in children (Baroni et al., 2009; Birmaher, 2013). Previously it was thought that children and adolescents with bipolar disorder may present with symptoms that do not closely conform to ICD and DSM criteria. For example, mixed episodes involving depression and agitation or extreme irritability rather than elation; very rapid cycling with brief periods of elation occurring during episodes of depressed mood; and sub-threshold biphasic mood dysregulation, which do not meet the full diagnostic criteria for either hypomanic or depressive episodes, were thought to characterize young people with bipolar disorder. Where children show extreme irritability characterized by severe recurrent temper outbursts more than three times a week for 12 months, they meet the DSM-5 criteria for the new condition referred to as disorder disruptive mood regulation disorder (APA, 2013). Previously these young people may have mistakenly in some instances received a diagnosis of bipolar disorder. Where young people show brief periods of elation during episodes of major depression as defined in DSM-5 (shown in Table 16.1), these cases may be diagnosed with depression. Where there are sub-threshold periods of high and low mood with no intervening periods of normal functioning for a period of at least a year, a diagnosis of cyclothymia may be given. Young people with bipolar disorder who present with initial depressive episodes may rapidly develop manic symptoms when treated with antidepressants.

Other alternatives to include the differential diagnosis of bipolar disorder, are ADHD, conduct disorder, schizophrenia, drug abuse, endocrinopathies such as hyperthyroidism, and neurological conditions such as temporal lobe epilepsy (American Academy of Child and Adolescent Psychiatry, 2007d; Baroni et al., 2009; James & Javaloyes, 2001). Youngsters with bipolar disorder, like those with ADHD, may show distractibility, impulsivity and over-activity. However, ADHD has an earlier onset than bipolar disorder; the symptoms of distractibility, impulsivity and over-activity are persistent, not episodic; and elated mood rarely occurs in ADHD. Children with bipolar disorder, like those with conduct disorder, may show oppositional behaviour, tantrums, defiance, sexual promiscuity and a pattern of rule-breaking and socially deviant behaviour. However, in bipolar disorder this overall pattern of behaviour is episodic rather than persistent and usually there is a family history of mood disorder. With bipolar disorder, guilt or remorse may be expressed for rule-breaking, which is rare in conduct disorder. Neither flight of ideas nor pressured speech is present in conduct disorder or ADHD, but both occur in bipolar disorder. Delusions and hallucinations may occur during manic episodes, making children with this type of presentation difficult to distinguish from youngsters with schizophrenia spectrum disorders. In such cases extended periods of observation may be required. A family history of schizophrenia rather than mood disorder and an insidious onset of current difficulties suggest a diagnosis of schizophrenia rather than bipolar disorder. Youngsters who abuse amphetamines or hallucinogenic drugs may present with hypomanic-like behaviour. However, this typically abates over time. A thorough medical and neurological assessment (including an EEG if seizure disorder is suspected) is essential to rule out endocrinopathies such as hyperthyroidism and neurological conditions such as temporal lobe epilepsy, which can contribute to a hypomanic-like presentation.

Epidemiology

The lifetime prevalence of bipolar disorder is 1.8% (Van Meter et al., 2011). Rates among adolescent and adult males and females are similar, but in pre-adolescent children rates are higher in boys (1.3%) than girls (0.8%) (Douglas & Scott, 2014). The following trends have been noted in the literature (e.g. Baroni et al., 2009; Birmaher, 2013; Fristad & MacPherson, 2014; James & Javaloyes, 2001; Leibenluft & Dickstein, 2008; Leibenluft & Rich, 2008). About a fifth of all bipolar patients have their first episode during adolescence, with a peak age of onset between 15 and 19 years of age. Co-morbid disruptive behaviour disorders, including conduct disorder, ADHD, and substance use disorder in adolescents are common and occur in over half of all cases. Typically onset of episodes of mania or hypomania is rapid, for example, from 2 weeks to 3 months. Most children and adolescents recover from these episodes. However, up to 80% of cases relapse within 5 years and have further episodes of mania, hypomania or depression. They may also have frequent sub-syndromal episodes. About half of cases have a favourable outcome. Better outcome is associated with high IQ, good pre-morbid adjustment, and a condition characterized largely by manic episodes. Poorer outcome occurs where there is a early age of onset, long duration of illness, mixed manic-depressive episodes, a rapid cycling course, psychotic symptoms, sub-syndromal mood symptoms, co-morbid disorders, low socio-economic status, exposure to negative life events, high expressed emotion, and family psychopathology. Paediatric bipolar disorder is associated with significant negative psychosocial consequences including family, interpersonal, academic, and legal problems, and increased risk for substance misuse, non-suicidal self-harm and suicidality. Suicide and attempted suicide occurs in up to 40% of cases and is more common in those with mixed and depressive episodes, a family history of depression, and co-morbid substance abuse.

Aetiology

Results of twin, adoption, and family studies confirm the important role of genetic factors in the aetiology of bipolar disorder in adults (Juli et al., 2012). Averaging across well-conducted studies, the concordance rate for monozygotic twins is about 50%, suggesting that environmental factors are as significant as genetic factors in the aetiology of adult bipolar disorder. Paediatric or early-onset bipolar disorder may be more heritable than bipolar disorder that has its onset in adulthood (Mick & Faraone, 2009). There is some evidence that stressful life events and unsupportive family relationships affect the course of bipolar disorder in adults, with a build-up of stresses and negative family interactions precipitating relapses (Birmaher, 2013).

Assessment and formulation

Multi-disciplinary assessment involving a range of disciplines including psychiatry and psychology conducted longitudinally for an extended time period is essential for cases where bipolar disorder is suspected (American Academy of Child and Adolescent Psychiatry, 2007d; Baroni et al., 2009; Birmaher, 2013; NICE, 2014; Youngstrom et al., 2009). Structured clinical interviews such as the Schedule for Affective Disorders and Schizophrenia for School Age Children and the Diagnostic Interview Schedule for Children which are listed in Table 3.3 in Chapter 3 may be used for diagnosis. The Mania Rating Scale (Fristad et al., 1992) may also be incorporated into the overall assessment protocol given in Chapter 4. Co-morbid conditions, especially conduct disorder, ADHD and substance use, should be screened and assessed if present following procedures in Chapters 10, 11 and 15. Because of the association between suicide and bipolar disorder, suicidality should be screened and a suicide risk assessment, following the guidelines given later in this chapter, should be conducted if appropriate. A formulation specifying factors that precipitated the onset of the episode, predisposing vulnerability factors, maintaining factors and protective factors may be drawn up to inform treatment and case management.

Treatment

A multi-modal intervention programme including psychopharmacological and psychological treatment is the treatment of choice for paediatric bipolar disorder (American Academy of Child and Adolescent Psychiatry, 2007d; Fristad & MacPherson, 2014; Fristad et al., 2011; Geller & DelBello, 2008; Kowatch et al., 2009; Leibenluft & Dickstein, 2008; MacNeil et al., 2009; Miklowitz, 2008; NICE, 2014; Pfeifer et al., 2010). Psychopharmacological intervention involves acute treatment of manic or depressive symptoms and long-term prophylaxis. Psychological treatment includes family psychoeducation; family-based problem-solving and communication skills training to strengthen family support for bipolar children; adherence training to prevent non-adherence to the prophylactic medication regime; cognitive-behavioural therapy to facilitate mood control and relapse prevention; family support group membership; school liaison to optimize the youngster's educational environment; and relapse prevention. In many cases, hospitalization during acute manic episodes may be essential.

Medication. With pharmacological therapy (Pfeifer et al., 2010) of severe acute manic or mixed episodes, an atypical antipsychotic (such as risperidone) may be prescribed for a brief period until the youngster's over-active and expansive behaviour comes under control. It is worth noting that atypical antipsychotics may lead to severe weight gain, a side effect that may interfere with later compliance of adolescents with prophylaxis. Benzodiazepines such as clonazepam or lorazepam may also be used where severe agitation is present. For acute depression, antidepressants in conjunction with lithium are usually prescribed. An antidepressant (e.g. an SSRI) taken alone is associated with the risk of rapidly switching from a depressive to a manic episode. For long-term prophylaxis lithium, sodium valproate, or carbamazepine are usually prescribed, and some combination of these medications may prevent rapid relapse in about 70% of cases. Non-adherence to prophylactic medication regimes leads to rapid relapse in over 90% of cases. Youngsters may show non-adherence problems because prophylaxis, especially with lithium, may have unpleasant side effects including weight gain, skin rashes and cognitive dulling. Lithium levels require careful three-monthly monitoring because excessive levels can have adverse effects on renal functioning. Lithium should be discontinued during pregnancy because of potentially negative effects on foetal development. Rapid withdrawal of lithium can precipitate an episode of mania. Sodium valproate may be preferred for prophylaxis in adolescents because it has less toxic side effects and because it may be more effective alone and in combination with carbamazepine for mixed manic-depressive episodes and rapid cycling bipolar disorder.

Psychological therapy. Psychoeducation is the cornerstone of psychological intervention. Families need to know about the diagnostic criteria for bipolar disorder as set out in Table 16.6 and the information on the epidemiology, aetiology and treatment of bipolar disorder previously outlined. The analogy of diabetes may be used in explaining the importance of adherence to long-term prophylactic medication regimes. Just as the diabetic requires insulin to remain healthy, so the youngster with bipolar disorder requires lithium, sodium valproate or carbamazepine to remain healthy. As part of psychoeducation parents may be invited to read *The Bipolar Teen: What You Can Do to Help Your Child and Your Family* (Miklowitz & George, 2007). Psychoeducation helps youngsters and parents to externalize the problem. That is, it helps them to attribute troublesome manic and depressive behaviour to bipolar disorder rather than to negative intentions of the child. This process of externalizing the problems helps parents to treat children with bipolar disorder less critically and more sympathetically. Families may also be helped to counteract tendencies to be overly critical or hostile towards the youngster with bipolar disorder through using the problem-solving and communication skills described in Tables 4.2 and 4.3 in Chapter 4 and earlier in this chapter to address day-to-day difficulties. Families may be helped to facilitate the youngsters' engagement in regular daily routines which include taking medication regularly at pre-set times; adhering to a regular times for eating meals, retiring at night and rising in the morning; and avoiding alcohol and recreational drug use. If necessary, reward programmes (described in Table 4.5 in Chapter 4) may be used to reinforce regular adherence to medication, eating and sleeping routines, and avoidance of drugs and alcohol use.

With relapse prevention, youngsters may be helped to recognize their manic and depressive prodromes and to develop good coping strategies to prevent the development of fullblown episodes of mania or depression. Prodromes for mania include sleeping less, feeling driven to engage in risky goal-directed behaviour, irritability, increased sociability, racing thoughts and increased optimism. Good coping strategies include restraining oneself, delaying acting on potentially risky plans until they have been discussed with parents or the therapist, doing relaxation exercises, setting aside time to sleep, and talking to parents about calming down. Prodromes for depression include feeling sad, loss of interest in normal activities, being unable to stop worrying, and sleep problems. Good coping strategies include getting support from parents, engaging in pleasant activities, challenging negative thoughts following the procedures outlined earlier in this chapter, and keeping regular times for retiring and rising in the morning.

Because bipolar disorder places a chronic strain on families, it is important for families to develop a supportive network to help them cope with this long-term stress. Within this context, families may be introduced to long-term support groups for families containing a youngster with bipolar disorder and given information about bipolar disorder websites such as that for the Balance Mind Parent (http://www.bpkids.org/).

Bipolar disorder compromises youngsters' capacity to address educational challenges. Within this context, liaison with youngsters' schools is critical. School staff need psychoeducation about bipolar disorder. Schools should adapt youngsters' educational programmes to take account of their absence from school during periods of hospitalization or home-based recovery. Also, in some instances it is appropriate to lessen educational demands and stresses on youngsters to prevent relapse associated with such pressures.

Suicide and self-harm

Research on the epidemiology of suicide points to the following conclusions (Hawton et al., 2012). Internationally there is considerable variability in reported suicide rates. This may reflect actual differences in rates and differences in reporting practices. Suicide is under-reported to protect families from the perceived stigma of suicide. Reported suicide rates increase from childhood to adolescence. In adolescence 2–6 times more males than females commit suicide. Childhood suicide is rare, with rates being under 2 per 100,000. In the UK, US and Australia between 2005 and 2009 for 15–24 year olds, reported suicide rates were 7.9–16.1 per 100,000 for males and 2.1–3.5 per 100,000 for females.

Epidemiological studies of self-harm (which includes both non-suicidal self-injury and attempted suicide) allow the following conclusions to be drawn (Hawton et al., 2012; Nock, 2010; Ougrin et al., 2012). Self-harm is far more common than suicide. About 10% of adolescents self-harm. A sub-group of self-harming adolescents report suicidal intent. More girls than boys self-harm. Self-harm is more common among adolescents from low socio-economic groups. Only about 1 in 8 self-harming adolescents present to hospital. Hospital presentation is most common following an overdose, is more common among girls, and increases over the course of adolescence. In community surveys self-cutting is the most common form of self-harm, whereas overdose is the most common form of self-harm presenting at hospitals. Self-punishment and tension relief are the main motivations associated with self-cutting, whereas with overdose suicide is the principal motivation. Self-harm is often repeated. Repeated self-harm is more common among those who self-cut compared with those who overdose. In most cases self-harm in adolescence ceases by early adulthood, although it is more likely to persist in females than in males. Adolescents who repeatedly self-harm over a long time period are more likely to continue self-harming in adulthood. Repeated self-harm is a risk factor for suicide.

While completed suicide is more common among adolescent males, suicidal ideation, attempted suicide and non-suicidal self-harm, and depression are more common among adolescent females. This pattern probably occurs because adolescent males who complete suicide typically are impulsive, aggressive risk-takers with a history of conduct disorder and substance misuse who respond to precipitating stresses with intense self-harming reactions such as hanging or shooting themselves. In contrast, females with high rates of suicidal ideation and suicide attempts typically have a history of mood or anxiety disorders (which are more prevalent in females), and respond to precipitating stresses by contemplating suicide or engaging in less lethal self-harming reactions, such as taking an overdose.

An assessment and formulation framework for self-harm and suicide risk

Assessment of self-harm and suicide risk is necessary when young people have recently self-harmed or attempted suicide; when they threaten self-harm or suicide; or where they show signs of severe depression. Evaluating suicide risk and self-harm involves assessing the position of the self-harming action on the suicidal ideation-intention continuum, the circumstances that led to the actual or threatened self-harming action and the degree to which a range of risk and protective factors are present in a particular case. In light of information from this assessment a formulation is constructed and a judgement made about the probability of a further suicide attempt or repeated non-suicidal self-harming action. This is not an exact science. It involves careful interviewing and clinical judgement informed by what is known about risk and protective factors for suicide and self-harm. A formulation framework to guide assessment is given in Figure 16.5. The factors listed in this figure and discussed below are drawn from extensive literature reviews (American Academy of Child and Adolescent Psychiatry, 2001; Bridge et al., 2006; Hawton & Fortune, 2008; Hawton et al., 2012; King & Foster, 2013; NICE, 2004b, 2011b; Nock, 2010; Ougrin et al., 2012; Shaffer et al., 2009; Simon & Hales, 2012).

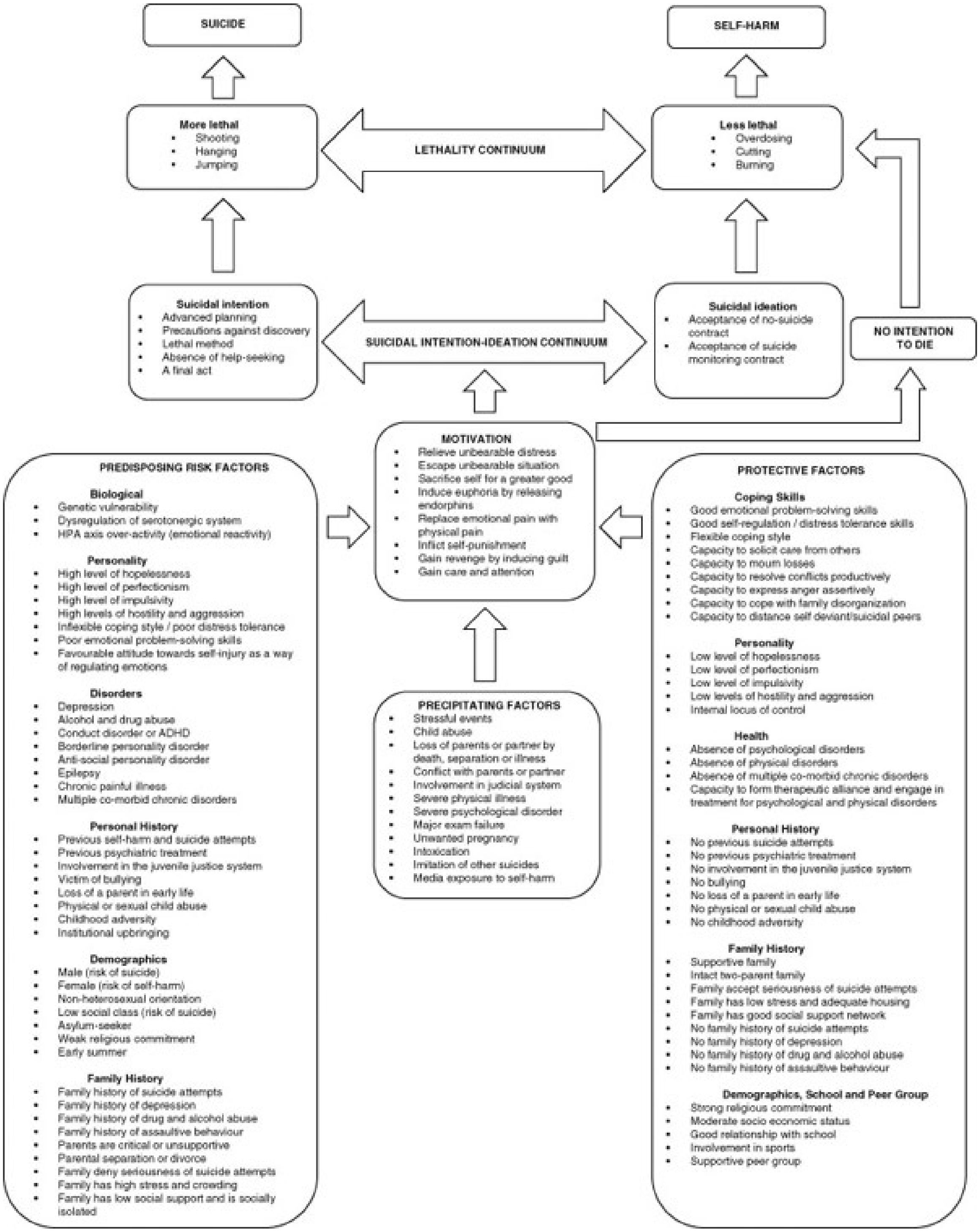


Figure 16.5 Formulation model for suicide risk and self-harm

Within this formulation model a central distinction is made between suicidal ideation where adolescents think about their death, and suicidal intention where there is clear evidence of adolescents' intention to end their own lives. These psychological states fall on a continuum. They are also distinguished from states where repeated self-harm occurs without thoughts of death, to fulfil some function such as relieving tension. A distinction is also made between extremely lethal and less lethal methods of self-harm, which represent two ends of a continuum. The use of more lethal methods is associated with higher risk of suicide. Some less lethal methods, such as cutting, are associated with non-suicidal repeated self-harm. Circumstances that triggered or precipitated the self-harming action, and the way in which these circumstances motivated the adolescent to self-harm, are specified within the formulation model. Finally, a distinction is made between a wide range of predisposing risk factors that render adolescents vulnerable to suicide or self-harm and protective factors associated with reduced risk.

Assessment of suicide risk and self-harm should cover the following domains with reference to the formulation model in Figure 16.5:

- suicidal ideation and intention
- method lethality
- precipitating factors
- motivation
- personality-based factors and coping skills
- disorder-related factors
- personal history factors
- family factors
- demographic, school and peer group factors.

Suicidal intention and ideation

Suicidal intention may be distinguished from suicidal ideation. Suicidal intention is characterized by

- advanced planning
- precautions against discovery
- lethal method
- absence of help-seeking
- a final act.

Thus, when self-harm is characterized by suicidal intention, there is evidence that young people have engaged in advanced planning about taking their own lives and have taken precautions against discovery. There is also evidence that they have used or intended to use a potentially lethal method such as hanging, shooting themselves, or jumping from a very dangerous height and have not sought help or intended to seek help after making the suicide attempt. Youngsters with suicidal intentions typically also complete a final act such as writing a suicide note. Where youngsters show all of these features of suicidal intention, there is a high risk of suicide.

With suicidal ideation, in contrast, adolescents report thinking about self-harm and possibly engaging in non-lethal self-harm such as taking a small overdose or superficially cutting or burning themselves but have no clear-cut plans about killing themselves. Suicidal intention and ideation reflect two ends of a continuum, with states that approximate suicidal intention reflecting a higher level of risk and those approximating suicidal ideation reflecting a lower level of risk.

The absence of suicidal intentions may be considered a protective factor. The acceptance by the adolescent of a verbal or written contract during a suicide risk assessment, not to attempt suicide is a protective factor. The commitment on the part of the adolescent’s parents of carers to monitor the adolescent constantly until all suicidal intention and ideation have abated is a further important protective factor to consider in this domain. This commitment may take the form of an oral or written contract between the psychologist and the parents or carers.

Method lethality

The lethality of the method used or threatened is an important factor to consider in assessing risk with more lethal methods being associated with greater risk in some instances. Using a firearm, hanging, jumping from a great height and self-poisoning with highly toxic drugs are considered to be more lethal than cutting, burning oneself with cigarettes, or overdosing on non-prescription drugs. Within this domain, the availability of a lethal method such as access to a firearm or highly toxic drugs constitutes an important risk factor for suicide. Self-harm, particularly superficially cutting of the wrists and arms, should be distinguished from potentially lethal incomplete suicide attempts. Non-lethal self-harm of this sort is sometimes associated with an attempt to relieve tension or gain attention following an interpersonal crisis. This type of self-harming is sometimes preceded by a sense of emptiness or depersonalization (a sense of not being oneself). It is common among adolescents with a history of abuse or neglect and often occurs repetitively. That is, the young person uses repeated self-harm as a strategy for coping with recurrent distressing psychological states or interpersonal crises, without ideas or intentions of ending their lives.

The degree of suicidal intention cannot always be judged from the lethality of the method used. Where adolescents misunderstand the degree of lethality associated with a particular method, apparently minor self-harming gestures, such as taking a small overdose of non-prescription drugs, may be a significant risk factor for actual suicide.

The unavailability of lethal methods such as firearms is an important protective factor. This protective factor can be put in place by inviting parents to remove guns, extremely toxic drugs and other lethal methods from the household or placing the adolescent in a place where there is no access to lethal methods.

Precipitating factors

Suicide attempts are commonly triggered or precipitated by stressful events. Adolescents perceive the demands and challenges of these stresses to exceed their capacity to cope. These stresses may be characterized by significant interpersonal conflict or devastating loss involving a parent or romantic partner. Ongoing conflict with parents, particularly if it entails child abuse, is strongly associated with completed suicide. More severe abuse, combined physical and sexual abuse, and chronic abuse are all associated with higher risk. Conflict over disciplinary matters and rule-breaking, particularly if it involves court appearance and imprisonment, are all associated with suicide attempts. For imprisoned adolescents, the risk of suicide attempts is greater during the early part of detention. Loss of parents or a romantic partner through death, long-term separation, or severe chronic illness may precipitate attempted suicide. Other loss experiences such as diagnosis of severe personal illness (for example, being diagnosed as HIV-positive), severe psychological disorder (for example, being diagnosed with schizophrenia) or exam failure may precipitate self-harm. Adolescent pregnancy may also precipitate attempted suicide. This may reflect a loss of innocence and a potential focus for intense parent–adolescent conflict.

Self-harm is more likely to occur where adolescents are intoxicated following alcohol or drug use. Intoxication increases impulsivity and impairs the capacity for flexible problem solving.

Suicide, arising from imitation of others, may be precipitated by suicides within the peer group, school or locality or media coverage of suicides.

Repeated non-suicidal self-harm (as distinct from completed suicide) is associated with impulsive separation following romantic relationship difficulties or a recent court appearance due to impulsive or aggressive anti-social behaviour.

Motivation

Adolescents may be motivated to attempt suicide or self-harm for a wide variety of reasons. Suicide is usually perceived as a way of escaping from an unbearably stressful situation, often involving loss or conflict or relieving unbearable distress, for example, severe and chronic depression or physical pain. From this perspective, death may be seen as a state that will bring relief from situational stress and personal distress. In rare circumstances adolescents may attempt suicide to sacrifice themselves for the greater good. Some adolescents from disorganized conflictual families may view their self-harm as a necessary sacrifice that must be made to preserve the integrity of their family. That is, they may fantasize that their suicide will serve as a rallying point which will unite a fragmented family.

Repeated self-harm may be motivated by attempts to modify personal distress or interpersonal situations. With regard to personal distress, adolescents may engage in repeated self-harm such as cutting or burning themselves with cigarettes to punish themselves and so alleviate guilt for not living up to perceived parental expectations. They may also engage in repeated self-harm to replace emotional pain with physical pain, or to induce euphoria by releasing endorphins. Some adolescents who repeatedly self-harm say that cutting or burning does not hurt them, but rather makes them feel good. With regard to engaging in self-harm to modify relationships with family and friends, adolescents may harm themselves to get care and attention, or gain revenge by inducing guilt. For example an adolescent may take a non-lethal overdose to punish a parent or romantic partner for their hostility, or for leaving them through death, separation or illness. Here the sentiment is 'you have hurt me, but I will get my revenge by hurting you through killing myself and causing you to feel guilt.'

Understanding the motives and functions that suicide attempts or repeated self-harm are intended to fulfil is important in treatment planning. When the functions of an attempted suicide are understood, the treatment plan should help the youngster find other ways to fulfil these functions. That is, treatment plans should help youngsters find less destructive ways for regulating distress, modifying painful situations, managing perfectionistic expectations, expressing anger assertively, resolving conflicts productively, mourning losses and soliciting social support from family and friends.

Personality-based factors and coping skills

At a biological level, there is considerable evidence from twin and family studies that there is a genetic predisposition to suicidality (Hawton et al., 2012). This probably involves the serotonergic neurotransmission system. This system subserves the regulation of depressive and aggressive affect and is dysregulated in people who self-harm or attempt suicide. Suicidality is also associated with HPA axis over-activity which subserves a high level of emotional reactivity. Dysregulation of the HPA axis may be caused by genetic factors and early child maltreatment or trauma. These neurobiological factors probably contribute to the development of personality traits which place adolescents at risk for suicide. These include hopelessness, perfectionism, impulsivity, hostility and aggression, an inflexible coping style with poor distress tolerance, poor emotional problem-solving skills, and a favourable attitude towards using self-injury as a way of regulating emotions. Young people who attempt suicide are apt to view themselves as incapable of changing their situation and so the future, to them, looks hopeless. Perfectionism is a risk factor for suicide probably because it leads to heightened self-expectations which may be difficult to achieve. Suicidal adolescents tend to be inflexible in their coping styles and have poor problem-solving skills. They have difficulties drawing on memories of successfully solving social-emotional problems in the past and so have a limited repertoire of coping strategies to draw upon when attempting to tolerate distress. Thus they resort to strategies which may be ineffective. Their aggression and impulsivity may lead them to engage in self-directed aggression with little reflection on other possible alternatives for solving their difficulties. Each time they use self-harm as a coping strategy, they may consolidate a favourable attitude towards self-injury as a way of regulating emotions and coping with stress.

Low levels of personality traits which place adolescents at risk for suicide are protective factors in this domain, that is, low levels of hopelessness; perfectionism; impulsivity; hostility and aggression; and an internal locus of control. Good emotional problem-solving, self-regulation and distress-tolerance skills, and a flexible coping style are particularly important protective factors. These skills permit adolescents to solicit social support from family and friends, mourn losses, resolve conflicts productively, express anger assertively, cope with family disorganization and distance themselves from peers who may serve as deviant role models for self-harming or suicidal behaviour. Treatment of self-harming adolescents focuses on helping them develop good emotional problem-solving, self-regulation and distress-tolerance skills.

Disorder-related factors

Among adolescents, and particularly among males who constitute a large proportion of completed suicides, disorders which are risk factors for suicide include alcohol and drug misuse, conduct disorder, anti-social or borderline personality disorders. All of these are more common among impulsive individuals, and impulsivity has been already been mentioned as a personality-based risk factor for suicide. The presence of depression is a highly significant health-related risk factor for future suicide. Depression is strongly associated with hopelessness, which paves the way for suicide. Major depression (a recurrent episodic mood disorder) is strongly associated with completed suicide, whereas dysthymia (a chronic milder non-episodic mood disorder) is associated with repeated suicide attempts. Epilepsy and chronic painful illness are two medical conditions which place adolescents at increased risk of suicide. Increased suicide risk is strongly associated with multiple co-morbid chronic psychological and physical disorders.

Good physical and mental health and the absence of psychological or physical disorders are important protective factors in this domain. So too is the capacity to form a good therapeutic alliance and engage in a contract for treatment of disorders including depression, alcohol and drug misuse, conduct disorder, anti-social or borderline personality disorders, epilepsy and chronic painful illness.

Personal historical factors

Past self-harm is a risk factor for future self-harm. A history of previous non-suicidal self-harm or suicide attempts is the single strongest historical risk factor for future suicide. Other historical risk factors include previous psychiatric treatment, a history of involvement in the juvenile justice system, bullying, loss of a parent in early life, physical and sexual child abuse, childhood adversity and institutional upbringing. The absence of these historical events is a protective factor as is a history of good pre-morbid adjustment.

Family factors

A family history of a range of problems, notably suicide attempts, depression, drug and alcohol misuse, and assaultive behaviour place young people at risk for suicide. In addition, adolescents are placed at increased risk of suicide if their parents are separated or divorced, critical, unsupportive, socially isolated, live in stressful over-crowded conditions, and if they deny the seriousness of the young person's suicidal intentions.

Protective family factors include a family history that does not entail suicide attempts, depression, drug and alcohol misuse, and assaultive behaviour. The presence of an intact two-parent supportive family where there are low levels of stress and a high level of social support for the family as a whole, and in which the parents accept the seriousness of the young person's self-harming actions may also be considered protective factors. Helping parents accept the seriousness of the young person's self-harming actions and providing the young person with ongoing support is a key element in the treatment of self-harming adolescents.

Demographic factors

Male adolescents are at greater risk for completed suicide while female adolescents are at greatest risk of repeated non-suicidal self-harm. Males tend to use more lethal methods (guns and hanging) whereas females use less lethal methods (cutting or self-poisoning). Non-heterosexual orientation, low socio-economic status and being an asylum-seeker are risk factors for self-harm and suicide. There is a greater risk for suicide among adolescents from communities with lower levels of religious practice. With respect to seasonality, completed suicide is most common in early summer.

Protective demographic factors include moderate socio-economic status and membership of a culture with strong commitment to religious values and practices. Good relationships with staff and pupils at school and enjoyment of schoolwork, involvement in sports, and membership of a supportive peer group are also protective factors.

Assessment of self-harm and suicide-risk

Family-focused, social learning theory–based interventions for the management of self-harm and suicide risk emphasize the importance of adopting a structured problem-solving approach that takes account of the child's or adolescent's personal features and the social context within which the suicide attempt was made (American Academy of Child and Adolescent Psychiatry, 2001; Berman et al., 2006; Bridge et al., 2006; Hawton & Fortune, 2008; Hawton et al., 2012; King & Foster, 2013; NICE, 2004b, 2011b; Nock, 2010; Ougrin et al., 2012; Simon & Hales, 2012; Shaffer et al., 2009). The over-riding objective of a family consultation where self-harm has occurred or where suicide has been threatened or attempted is to prevent harm, injury or death from occurring. Certain broad principles for assessment may be followed. First, offer immediate consultation. Second, use the consultation process to develop a comprehensive understanding of the situation surrounding the suicide threat or attempt. Third, during the consultation process, establish or deepen your working alliance with all significant members of the network. Fourth, assess all of the factors mentioned later and listed in Figure 16.5. Check if the factors were present in the past, the extent to which they were present during the recent episode, and whether they are immediately present. Where possible obtain information relating to risk factors from as many members of the network as possible. This includes the youngster who has threatened self-harm or attempted suicide, key members of the family, and previously involved professionals. Fifth, identify people within the youngster's social network and the professional network that may be available to help implement a management plan. Sixth, draw the information you obtain into a clear formulation on which a management plan can be based. The formulation must logically link the risk factors identified in the case together to explain the occurrence of the episode of actual or potential self-harm and the current level of risk. The management plan must specify the short-term action to be taken in the light of the formulation. The plan must logically indicate that the changes it entails will probably lower the risk of self-harm. It is also vital that until the risk of suicide has reduced, the youngster and the parents make a contract at the conclusion of each session to return to meet the clinician at a specified time. For the youngster, this contract involves making a commitment not to make further suicide attempts. For the parents or carers, the contract involves making a commitment to monitor the youngster so as to prevent further suicide attempts.

Multi-systemic interviews about self-harm

With children and adolescents it is useful to conduct interviews with the parents (or guardians) alone, with the child alone, and with the child and parents together. The separate parent and child interviews provide opportunities to obtain different perspectives on the presence or absence of risk factors. The conjoint interview may be used to explore differences between parent and child views of the situation and to observe patterns of parent–child interaction.

For example, in one case the parents reported that their child continually displayed attention-seeking behaviour and the self-injurious behaviour was just one more example of that attention-seeking process. The child asserted that he felt neglected and occasionally abused by the parents and that his self-injurious behaviour was an attempt to escape from that abuse. Later in a whole-family interview, the pattern of interaction in which the parents and child engaged was explored and the differences between their views of the situation were examined. This case also shows that it is crucial to interview the young person alone at some point during the evaluation. If the young person's concerns are being discounted by the parents, they will be less inhibited to talk about them in a one-to-one situation. Also if neglect or abuse is occurring, this can best be explored in an individual interview. Child protection issues are covered in Chapters 19–21. Conjoint parent–child interviews offer a forum within which parents can be invited to view self-harm or suicidal behaviour and ideation as reflecting a broad contextual problem rather than a difficulty which is intrinsic to the child.

In custody and access cases, foster care cases, and cases where a child is in a residential school or institution, key people involved in the child's network must all be interviewed individually if necessary. These key people will include the person legally responsible for the child, the child's primary caretaker, the person most concerned that the referral be made, the teachers or care workers who see the child on a day-to-day basis, and other professionals who have been involved in case management including social workers, paediatricians and the GP. Other complications and issues associated with cases where the child is in foster or residential care or the parents have separated are discussed in Chapters 22 and 23, respectively.

Interviewing young people about self-harm

When interviewing young people about self-harm it is important first to let the adolescent know the duration of the interview and what will follow on from it. If hospitalization or some other protective intervention is an option, it is better to mention that this is a possible outcome rather than to conceal it. It is also crucial to be accurate about the limits of confidentiality. You must let the young person know that you will not break a confidence that they ask you to keep unless it is necessary for ensuring their safety. Initially to establish rapport it may be useful to start by inquiring about some relatively unthreatening area like schoolwork or friendships. Once you have established a working relationship with the young person, move into the central part of the interview.

In cases where a self-harm has occurred or a suicide attempt has been made, obtain a detailed description of the self-harming behaviour that led to the referral and related suicidal ideation and intentions. Note the lethality of the self-harming behaviour. Ask the young person to rate the strength of their will to die on a 10-point scale, and the strength of their will to live on a 10-point scale, when they self-harmed. Note the presence of a detailed plan, the taking of precautions to avoid discovery and the carrying out of a final act like making a will or writing a note. If you are reassessing a youngster who has been hospitalized with a view to discharging the case, or if you are assessing a case where suicide is suspected but no self-harm has occurred, ask these questions.

- Have you thought of harming yourself?
- How strong is the urge to harm yourself?
- On a scale of 1 to 10, how strong is your will to die right now?
- On a scale of 1 to 10, how strong is your will to live right now?

- Have you a plan to harm yourself?
- Have you the things you would need to harm yourself?
- What preparations have you made to harm yourself?
- Suppose you harmed yourself and died. What do you hope your family/your mum/your dad/your brother/your sister would think/do/feel?
- Suppose you harmed yourself but didn't die. What do you hope your family/your mum/your dad/your brother/your sister would think/do/feel?
- Do you want to harm yourself to escape from some feeling inside you or some situation?
- Do you want to punish yourself or somebody by harming yourself?
- Will harming yourself get you something that you really need?

Note if the plan includes specific details of a dangerous method, access to a dangerous method (firearm, rope, toxic drugs, etc.), precautions against discovery and a final act such as writing a suicide note or a will. The Beck Scale for Suicide Ideation, Childhood Depression Inventory – Second Edition, the Hopelessness Scale for children, and the Self-Injurious Thoughts and Behaviours Interview are useful adjuncts to a clinical interview and are listed in Table 16.5. Invitations to engage in writing, drawing or painting offer other avenues for understanding youngsters' worldviews, especially where they are particularly reluctant to engage in conversation.

In cases where actual self-harm has occurred, build up a picture of the immediate circumstances surrounding the episode and the events that happened before, during and after the episode. Clarify if this was an escalation of an entrenched pattern involving suicidal ideas, self-harm, or attempted suicide. In cases where suicidal ideation was present but self-harm did not occur, ask the young person to describe the sequence of events that led up to and followed on from this episode of suicidal ideation.

Although controversial, there is some evidence that taking antidepressants (SSRIs) can increase suicide risk in young people (Hawton et al., 2012). It is therefore important, as part of suicide risk assessment, to ask young people about their use of antidepressant medication. Although the mechanism by which antidepressants may increase suicide risk is not yet understood, one possibility is that antidepressants (without concurrent psychotherapy) alleviate the somatic but not cognitive symptoms of depression. Thus, young people have increased energy and capacity for goal-directed behaviour, but still retain a bleak view of the self, the world and the future. Their increased energy and capacity for goal-directed behaviour coupled with their pessimistic worldview may lead them to self-harm.

Ask the young person about their perception of the roles of significant people from their social network (parents, siblings, friends, romantic partners, teachers and other involved professionals) in the recent episode and previous episodes of suicidal ideation, self-harm, or attempted suicide. The aim here is to obtain a coherent account of how the young person came to view his or her life situation as problematic and selected self-harm or suicidal ideation as a solution to this experience. The procedures for constructing and elaborating a genogram and lifeline, described in Chapter 4, may be useful here. Note any factors in the young person's relationships that triggered the sequence of events that led to suicidal ideation, self-harm or attempted suicide.

Here are some questions that may be useful in eliciting information about risk and protective factors listed in Figure 16.5. All of these questions should be followed up with probes and linked together with alliance-building reassurance.

- Can you tell me about the things that were happening before you had these ideas about your own death or harmed yourself?
- What was going wrong in your life?
- How do did you think that harming yourself would solve these problems?
- On a scale of 1 to 10, how strong was your will to die?
- On a scale of 1 to 10, how strong was your will to live?
- Did you want to end your life or did you want to just harm yourself?
- Had you been taking antidepressants, and if so for how long?
- How did you reach the decision to harm yourself or to end your life?
- How exactly did you harm yourself?
- How did you arrange to have the things you needed to harm yourself? (probe: firearm, rope, toxic drugs, access to a high place to jump from, etc.)
- What happened afterwards?
- If you intended to die, how did you survive?
- If you intended to die, in what way did you believe that ending your life would solve the difficulties you faced?
- If you didn't intend to die, in what way did you believe that harming yourself would solve the difficulties you faced?
- When you look back on that episode, do you think now that there were other things you could have done, besides harming yourself, to deal with the difficulties you faced?
- When you look into the future now, are you hopeful about changing your situation so that it will become more bearable?
- To what extent do you think that hopelessness may push you towards self-harm again?
- To what extent do you think that the high expectations that you have of yourself pushed you towards self-harm?
- To what extent do you think that the high expectations that you have of yourself may push you towards self-harm again?
- To what extent do you think that you acted on impulse, without thinking, when you

harmed yourself?
- Do you expect that you may act on impulse, without thinking, and harm yourself again?
- Do you expect to harm yourself again to relieve tension, punish yourself, get revenge, or get something you really need?
- Have you had problems with low mood in the past?
- Have you tried to harm yourself before?
- Can you tell me about that episode, how it started, what happened and how it ended?
- Have you been in trouble at school or with the courts because of rule-breaking in the past?
- Have you been using drugs or alcohol much in the past?
- Have you attended a clinic for help with any problems like low mood, being in trouble, or using drugs or alcohol in the past?
- Have you been treated for any painful health problems or illnesses?
- Are you on medication for any conditions such as epilepsy?
- Have you been bullied?
- When you were growing up what were the hardest challenges you faced (probe: loss of a parent, being hurt by a parent, being forced to have sex, parental separation or divorce, living in an institution, extreme poverty)?
- Has anyone in your family had problems with low mood, getting in trouble with the law or using too much drugs or alcohol ?
- In your family, whom do you feel you can turn to now for help with the difficulties you face?

Integrate the child’s story, check its accuracy and agree on a plan for discussing this account with parents or legal guardian and significant members of the adolescent’s network.

Management of suicide risk

In assessing risk it is important to determine if factors identified in the assessment interviews were present or absent during the recent episode of self-harm, if they are present or absent now, and if there is any available resource that can modify risk factors that are still present. For example, if chronic school-based bullying was a risk factor and it is still present, it might be modified by arranging for the young person to change schools.

In assessing risk it is important to distinguish between high immediate suicide risk and long-term risk associated with repeated self-harm. Immediate focused intervention based on a clear formulation and a coherent management plan can reduce immediate suicide risk. Individuals who engage in repeated self-harm are at high risk for suicide in the long term. They require a programme of psychological intervention to help them develop alternative coping strategies that they can use instead of self-harm to deal with distressing intrapsychic states and interpersonal situations (Ougrin et al., 2012).

The principal focused interventions to reduce immediate suicide risk are home-based care or referral for hospital-based or residential care.

Home-based care

With home-based care, the psychologist and other relevant team members make a no-suicide contract with the adolescent and a monitoring contract with the parents or carers.

No-suicide contract. The no-suicide contract is an agreement, either oral or written, between the adolescent and psychologist not to attempt suicide before the next appointment. The contract should also include the steps that the adolescent will take if the circumstances that triggered the previous suicidal threat or attempt recur or if suicidal intentions develop. Such steps may include disengaging from conflict with parents, partners, peers or others; avoiding catastrophizing about loss experiences; engaging in supportive conversation with a parent or carer; engaging in a distracting or soothing activity such as reading or listening to restful music; and phoning the clinic's 24-hour on-call service as a last resort if strong suicidal ideation and intentions persist.

Monitoring contract. The parents or carers are invited to agree to a monitoring contract. This entails developing a family rota for keeping the young person under 24-hour supervision to prevent the adolescent from attempting suicide; agreeing that the person on the rota will only engage in supportive and non-conflictual conversation with the young person; and phoning the clinic's 24-hour on-call service as a last resort if strong suicidal ideation and intentions persist.

24-hour on-call service. Ideally the no-suicide and monitoring contract are offered as part of a therapeutic plan in which the adolescent and parents are given a 24-hour on-call phone number that they can call to contact a member of the treatment team if strong suicidal ideation and intentions persist. This has been shown to significantly reduce the number of suicide attempts and threats (Brent, 1997).

Treatment plan. The no-suicide and monitoring contract are offered as part of therapeutic plan which involves the adolescent and parents being invited to attend a series of sessions aimed at planning ways to modify risk or triggering factors which contributed to the suicide attempt or threat, or to the episode of non-suicidal self-harm. The treatment plan should address the functions of the attempted suicide, suicide threat or self-harming act, and help the young person in collaboration with the parents find other ways for regulating distressing psychological states; modifying stressful situations; expressing anger assertively; resolving conflicts productively; mourning losses; managing perfectionistic expectations; soliciting social support from others; coping with family disorganization; and dealing with the urge to imitate others who attempt suicide. The treatment plan should also aim to treat the underlying depression and related difficulties such as conduct problems and drug misuse. The treatment programme described for depression in the first part of this chapter is appropriate here. Dialectical behaviour therapy and multi-systemic therapy show particular promise as interventions for adolescents who repeatedly self-harm (Henggeler et al., 2002; Miller et al., 2007; Ougrin et al., 2012).

Active follow-up. Adolescents who attempt or threaten suicide are at risk for not attending follow-up appointments, and so an active approach to follow-up is a vital part of the no-suicide contract and the parents' monitoring contract. The adolescent and parents should be given a definite appointment after the initial consultation and this should be within a couple of days of the first meeting. The family should be contacted by phone to remind them about the appointment and to inquire about non-attendance if this occurs. The number, duration and agenda for therapeutic sessions should be made clear to both the parents and the adolescent from the outset, and the importance of follow-up for prevent further suicide threats and attempt should be highlighted.

Hospital-based care

With hospital-based and residential care, while the adolescent is actively suicidal, 24-hour constant observation should be arranged in consultation with nursing or residential care staff. As part of the hospital or residential care admission contract, the parents or legal guardians should be invited to attend a series of sessions aimed at planning ways to modify risk or triggering factors which contributed to the crisis and which when modified would create a safe context for discharge from hospital or residential care unit. Thereafter, the protocol outlined earlier for home-based care should be followed.

Prevention

School-based programmes to prevent depression in children should help youngsters develop the cognitive and social skills necessary to reduce their vulnerability to depression. In particular such programmes may include the following components:

- a model for understanding depression which outlines the roles of psychological, social and biological factors
- attribution training to help youngsters develop learned optimism (rather than learned helplessness)
- self-instructional training to help youngsters develop positive self-monitoring, self-evaluative and self-reinforcement skills
- social problem-solving skills

- planning pleasant events
- relaxation training.

Depression prevention programmes are most effective when delivered by professional staff and offered to older female adolescents who have been screened for depressive symptoms and identified as being at high risk (Stice et al., 2009). Child abuse prevention programmes discussed in Chapters 19–21 are a further possible way of preventing childhood depression.

While such programmes may go some way towards preventing some children who are at suicide risk, broader preventative strategies are required (Hawton et al., 2012). At a societal level a range of measures may reduce adolescent self-harm, for example, reduction of stigma associated with mental health problems and help-seeking; reducing access to lethal methods (firearms, toxic drugs and poisons); improved media reporting of suicide to prevent suicide by imitation; and increasing the availability of hotlines (for example, Samaritans) and Internet-based help for suicidal adolescents. Within schools promising interventions include screening children at risk of suicide and referring them for targeted prevention programmes, and training all children in identifying and referring peers who they suspect may be at risk of suicide.

Summary

Mood disorders in children and adolescents constitute a serious problem because of the high rate of relapse. While equal numbers of children develop mood problems, in adolescence there is a sharp rise in the prevalence of depression among girls. The prevalence of depression in young people is about 4%. Within DSM and ICD the main distinctions are between unipolar and bipolar disorder and between recurrent major and persistent minor mood problems. Major and minor unipolar disorders are probably the most commonly seen in clinical practice. A low mood, negative cognitive set, self-defeating behavioural patterns, disruption of sleep and appetite, and conflict or social withdrawal from important relationships at home and at school are the main clinical features of major depression in young people. Biological theories point to the role of genetic factors in rendering people vulnerable to the development of mood disorders and to the role of structural and functional brain abnormalities, dysregulation of neurotransmitter, neuroendocrine and immune systems, and circadian rhythm abnormalities in the aetiology of depression. Stress theories propose that depression develops following exposure to demands and challenges (which may be self-generated) with which the individual is unable to cope. There are also theories that implicate variables such as temperament, personality traits, cognitive biases, coping strategies and interpersonal style in the aetiology of depression. Psychoanalytic theories of depression point to the importance of early separation or bereavement and critical parenting styles in developing a vulnerability to depression.

Cognitive-behavioural theories highlight the role of negative interpretation of ambiguous events, lack of reinforcement or poor self-reinforcement skills in the maintenance of depression. Social theories such as interpersonal theory or family systems theory underline the role of problematic relationships in maintaining low mood. Because of the complexity of mood problems and the uniqueness of each case, intervention programmes should be based on a comprehensive case formulation arising from a thorough multi-systemic assessment. Available evidence suggests that with children and adolescents multi-systemic intervention based on the principles of cognitive-behavioural therapy, family systems therapy and social learning theory is the treatment of choice. Adjunctive SSRI antidepressant medication may be considered if psychological therapy alone is ineffective.

Bipolar disorder is characterized by episodes of mania or hypomania and by episodes of depression. The prevalence of bipolar disorder is 1.8%. Co-morbid disruptive behaviour disorders are common. Best practice involves multi-disciplinary assessment and multi-modal intervention including psychopharmacological and psychological treatment.

Where adolescents present with suicidal ideation, attempted suicide or non-suicidal self-harm, a risk assessment should be conducted and a plan for risk reduction developed and implemented.

Exercise 16.1

Paula Black is a 16 year old only child who was referred for assessment after her mother found a bottle of assorted pills hidden in her chest of drawers. Recently her school performance has deteriorated. She has also stopped playing hockey. She is tearful from time to time and very moody. Her mother has tried to talk her round but she becomes mute or throws a tantrum. Her mother has never had patience for that type of moodiness. Up until the beginning of last summer (4 months ago) her behaviour has been within normal limits. Her developmental history is unremarkable with sensorimotor, cognitive and social development all within the normal range. She had all the normal childhood illnesses and recovered from all of these admirably. A full family history is unavailable. This is what may be gleaned from the GP's letter. Her maternal grandparents live locally and have a supportive relationship with her. Paula's only aunt lives abroad but comes back to Dublin regularly, although she missed her trip last summer because she was in hospital. Paula never knew her father, who was killed in a road traffic accident when she was 2 weeks old. Her paternal grandparents, who live in Athlone and are farmers, have little contact with her although they did offer to take her on holidays this year and she refused. Paula plans to sit her leaving cert in 18 months. In the long term Paula wants to study veterinary medicine and has the ability to do so according to her teachers. She obtained 9 honours in her junior cert including 7 As. Paula has never had any romantic attachments to her mother's or her GP's knowledge but goes to dances and outings with her two close girlfriends who have recently begun dating boyfriends occasionally.

Develop a preliminary formulation for this case in which you clearly identify possible predisposing, precipitating, maintaining and protective factors.

What would your top three priorities be in a preliminary interview with Paula and her mother?

Role-play this interview.

Exercise 16.2

Use the model for formulating suicide risk contained in Figure 16.5 to decide if the risk of suicide is higher in the case of Maire O'Connor which was presented in Box 16.1 or Paula Black which was presented in Exercise 16.1. List the reasons for your judgement.

Further reading

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American Foundation for Suicide Prevention (AFSP): http://www.afsp.org

American Psychiatric Association's (APA) practice guidelines for treating depression, bipolar disorder and suicidal behaviour: http://psychiatryonline.org/guidelines.aspx

Beating the Blues computer-based CBT programme for depression: http://www.beatingtheblues.co.uk/

David Brent's therapy manuals: www.wpic.pitt.edu/research/star/ or BrentDA@upmc.edu

Depression Alliance UK: http://www.depressionalliance.org/

Depression and Bipolar Support Alliance USA: http://www.dbsalliance.org/site/PageServer?pagename=home

John Weisz's therapy manuals: weisz@psych.ucla edu

Manual for Coping with Depression course: http://www.kpchr.org/public/acwd/acwd.html

Pesky Gnats eCBT programme: http://www.juvenilementalhealthmatters.com/Welcome.html

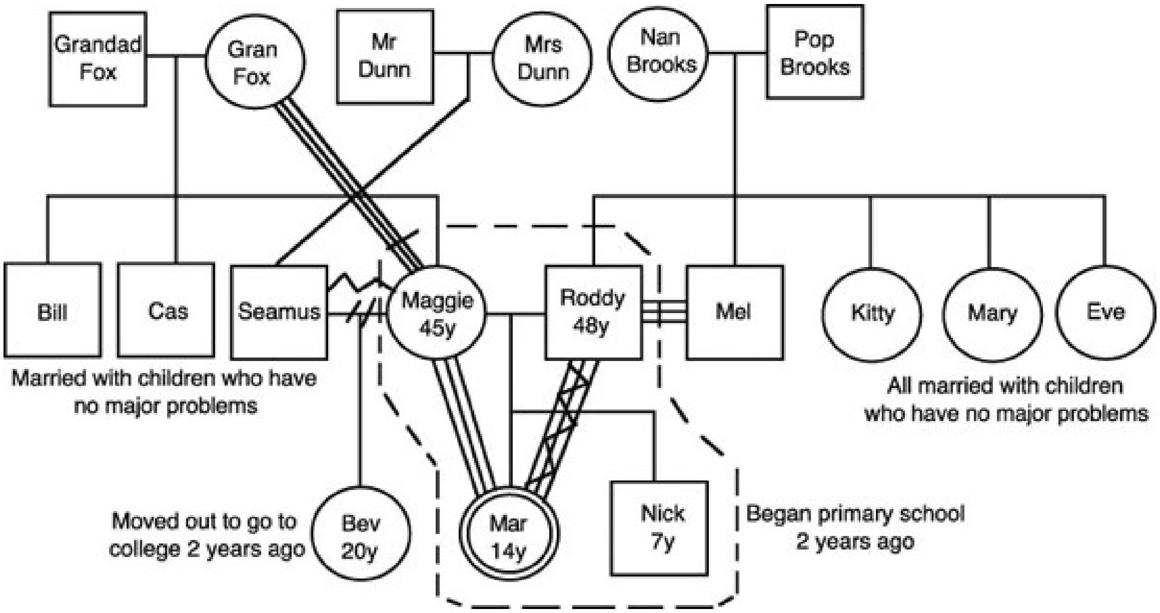
Chapter 17

Anorexia and bulimia nervosa

Anorexia nervosa and bulimia nervosa are the main eating disorders of concern in child and adolescent clinical psychology (American Psychiatric Association, 2006; Agras, 2010; Le Grange & Lock, 2011; Lock, 2012; NICE, 2004c). These eating disorders typically have their onset in adolescence. In both conditions there is an over-valuation of body shape and weight, with self-worth being judged almost exclusively in terms of these personal attributes. With anorexia, the primary feature is the maintenance of a very low body weight, whereas with bulimia the main feature is a cycle of binge eating and self-induced vomiting or other extreme weight control measures including dieting, excessive exercise, and laxative use. An example of a typical eating disorder case is presented in Box 17.1. Eating disorders are of concern because they are dangerous (Arcelus et al., 2011; Gowers, 2013; Klump et al., 2009; Mitchell & Crow, 2010; Steinhausen, 2011). In chronic cases they lead to many medical complications including growth retardation, osteoporosis, gastrointestinal bleeding, dehydration, electrolyte abnormalities and cardiac arrest. The mortality rate among women with anorexia is 12 times that of the normal population and about double that in other psychological disorders such as schizophrenia, bipolar disorder or depression. Eating disorders are associated with a raised suicide risk. It is ironic that in our Western industrialized culture where food is plentiful, self-starvation and a pattern of bingeing and purging are major problems affecting teenage girls. In this chapter, after considering the classification, clinical features and epidemiology of eating disorders, a variety of theoretical explanations concerning their aetiology will be considered along with relevant empirical evidence. The assessment of eating disorders will be followed by an outline of a family therapy approach to the treatment of anorexia and bulimia in young adolescents and a cognitive-behavioural approach to the treatment of bulimia in older adolescents. The chapter will conclude with some ideas on how to prevent eating disorders in populations at risk.

Box 17.1 A case of anorexia nervosa

Referral. Mar, a 14 year old girl, was referred for treatment because her weight had continued to fall since she was about 12 years. When assessed she weighed 37 kg (80% of her expected weight), had amenorrhea, a highly restrictive eating pattern of 2 years' duration and a daily routine involving episodes of intensive exercise. Mar had gone through an episode of self-induced vomiting after mealtimes for about three months but this has ceased a year previously.



Presentation. In the intake interview she expressed a fear of becoming fat and experienced her hips, buttocks, stomach and thighs to be considerably larger than their actual size. She continually thought of food and the number of calories associated with all aspects of her diet. Her mood was generally low and she had on occasion experienced suicidal thoughts, but had never had frank suicidal intentions. On the Eating Disorder Inventory, Mar obtained extreme scores on the drive for thinness and body dissatisfaction sub-scales. She also obtained extreme scores on the ineffectiveness, perfectionism, maturity fear sub-scales. Mar held a range of rigid beliefs about the importance of controlling her body shape. She also had a distorted body image, believing herself to be markedly larger than her actual size.

Developmental history. Her personal developmental history was well within normal limits. Language and cognitive development, if anything, were rapid and Mar had always been in the top 10% of her class. She was a model child at home showing no behavioural or emotional problems. She had good peer relationships and a circle of about 4–6 good friends in her neighbourhood. The transition to secondary school had been uneventful as had her menarche. She continued to do well in school but towards the end of her first year in secondary school became despondent about her weight. She was, according to her mother, 'well built'. Mar began dieting shortly before her 13th birthday. Her own view was that she felt like she wasn't fitting in with her friends, who by now were going to discos and beginning to take an interest in boys. Her mother's view was that she had been hurt by some comments made by girls at her school about her weight.

History of the presenting problem. What began as innocent dieting, that was wholeheartedly supported by Maggie and Roddy, the parents, gradually became more and more intense around the time that Bev, Mar's older step-sister, went to college and her younger brother Nick began school. Also at that time there was increased conflict between Seamus (Bev's father) and Maggie. Most of the arguments were about financing Bev during her time at college. Mar began to lose weigh rapidly and changed from being 'well built' to being quite slim. However, about year after she started dieting (and a year before the intake interview), Roddy had found her, quite by accident, vomiting behind the toilet block, when the family were on holiday on a camp site. Maggie and Roddy were shocked by this. They had seen programmes about bulimia on TV and knew that this was a sign of bulimia. Mar said she had a stomach upset and that was all. After the holiday, Mar was taken to the family doctor by the parents. He said she had a mild eating problem, but provided she stopped dieting all would be well. He saw her regularly over the course of the 12 months prior to multidisciplinary assessment. During that period, he advised the parents to take a low-key approach and encouraged Mar to eat a healthy balanced diet and avoid bingeing and vomiting. He impressed on her the dangers of developing an electrolyte imbalance and cardiac problems if she persisted with the bulimic pattern. Mar stopped the bulimic pattern but continued with dieting. Her weight continued to fall drastically and her periods eventually stopped about four months before the assessment.

Roddy and Maggie were at their wits' end to know what to do. Maggie, who loved to cook, made increasingly sumptuous meals to try to tempt Mar away from her diet. She took a softly-softly approach, never raising her voice and never being harsh or punitive. She looked to her mother, Mrs Fox, for support and gradually felt more and more guilt. She was convinced that the eating problem was a reflection on some mistake she had made as a parent. Roddy left the management of the problem to Maggie, although occasionally he tried to convince Mar to eat. These conversations usually ended in a row so they now happened less frequently. Mealtimes had become a nightmare according to Roddy. He said he now frequently played a round of golf after work and ate a bar-meal with his brother Mel afterwards.

Family history. Roddy's brother and three sisters and Maggie's two brothers were all married with children and none had any significant psychological problems or eating disorders. Bill and Cas tended to deny the reality of Mar's problem or to say it was something she would grow out of. Mel, Roddy's brother, saw Mar's behaviour as defiance that required strict discipline. Kitty, Mary and Eve thought that it was a personal problem and Eve thought it might have something to do with having an older step-sister.

Formulation. Mar was a 14 year old girl who presented with a anorexia nervosa and a history of bulimia, the onset of which was precipitated by Mar's entry into adolescence, Mar's dissatisfaction with her weight, critical comments made by peers about her weight, and increased family stress associated with her step-sister's move to college and her younger brother's entry into primary school. Dieting may have predisposed her to developing an eating disorder. The restrictive eating was maintained at an interpersonal level by the inconsistent way in which Mar's parents managed her refusal to maintain a normal body weight and at an intrapsychic level by Mar's distorted body image, maturity fears and need for control coupled with a sense of being powerless.

Treatment. Family-based treatment was offered which focused on supporting the parents in the first instance help Mar achieve a normal body weight. The focus then moved to helping the parents disengage from intrusive and inconsistent interactions with Mar concerning food while encouraging Mar to take responsibility for attaining a healthy target body weight and developing a less food-focused lifestyle.

Classification

Anorexia nervosa was first described in modern medical literature by Charles Lasègue in France in 1873 and by Sir William Gull in the UK in 1874. It was Gull who first used the term anorexia nervosa. Both Lasègue and Gull described anorexia as a condition characterized by emaciation, an inadequate and unhealthy pattern of eating, and an excessive concern with the control of body weight and shape. In 1979 Gerard Russell in the UK proposed that bulimia nervosa is a separate condition from anorexia. In the classification of eating disorders in both DSM-5 (APA, 2013) and ICD-10 (WHO, 1992), this distinction between anorexia nervosa and bulimia nervosa is a central organizing principle, with the former being characterized primarily by weight loss and the latter by a cyclical pattern of bingeing and purging. Diagnostic criteria for these conditions are given in Table 17.1. The distinction made between anorexia and bulimia, while descriptively useful, does not take full account of variations in eating problems seen in clinical practice. Many anorexic clients present with bulimic symptoms and many bulimic clients develop anorexia. For this reason, in DSM a distinction is made between the restricting type and the binge–purge type of anorexia.

A number of other eating disorders are listed in DSM-5 including pica, rumination disorder, binge-eating disorder, and avoidant/restrictive food intake disorder. With pica the young person persistently eats non-nutritive substances such as paper, string, clay or coal. With rumination disorder the child repeatedly regurgitates food, and may re-swallow this food or spit it out. With binge eating disorder there are uncontrollable episodes of overeating leading to obesity which cause considerable distress. The condition is sometimes likened to bulimia without vomiting or laxative use. With avoidant/restrictive food intake disorder, foods that are perceived to have aversive sensory characteristics are avoided. That is, there is an avoidance of foods with certain colours, smells, tastes, textures or temperatures. Children with this condition are sometimes referred to as choosy or selective eaters or food refusers. Avoidant/restrictive food intake disorder may also occur as a conditioned response developed during an extremely aversive experience involving food such as choking or vomiting. This type of food avoidance is sometimes referred to as functional dysphagia or globus hystericus. No abnormal pre-occupation with weight or shape occurs with any of these disorders, and this distinguishes them from anorexia and bulimia nervosa.

Table 17.1 Diagnosis of anorexia and bulimia nervosa

DSM-5	*ICD-10*
ANOREXIA NERVOSA	
A. Restriction of energy intake relative to requirements, leading to a significantly low body weight in the context of age, sex, developmental trajectory, and physical health. Significantly low weight is defined as a weight that is less than minimally normal or, for children and adolescents, less than that minimally expected. B. Intense fear of gaining weight or of becoming fat, or persistent behaviour that interferes with weight gain, even though at a significantly low weight. C. Disturbance in the way in which one's body weight or shape is experienced, undue influence of body weight or shape on self-evaluation, or lack of recognition of the seriousness of the current low body weight. (For specifiers, see DSM-5, p. 339.)	For a definitive diagnosis the following are required: A. Body weight is maintained at least 15% below that expected (either lost or never achieved) or a Quetelet's body mass index of 17. 5 or less (BMI = weight (kg)/height (m^2). Pre-pubertal patients may show failure to make the expected weight gain during the period of growth. B. The weight loss is self-induced by the avoidance of fattening foods, self-induced vomiting, self-induced purging, excessive exercise, use of appetite suppressants or diuretics. C. There is a body image distortion in the form of a specific psychopathology whereby a dread of fatness persists as an intrusive, over-valued idea and the patient imposes a low weight threshold on him or her self. D. A widespread endocrine disorder involving the hypothalamic-pituitary-gonadal axis is manifest in women as amenorrhea and in men as a loss of sexual interest and potency. There may also be elevated levels of growth hormone, raised cortisol levels, changes in the peripheral metabolism of the thyroid hormone and abnormalities of insulin secretion. E. If the onset is pre-pubertal, the sequence of pubertal events is delayed or arrested (growth ceases; in girls breasts do not develop and there is a primary amenorrhea; in boys the genitals remain juvenile). With recovery, puberty is often completed normally but the menarche is late.

BULIMIA NERVOSA

A. Recurrent episodes of binge eating. An episode of binge eating is characterized by both of the following:
   1. Eating, in a discrete period of time (e.g., within any 2-hour period), an amount of food that is definitely larger than what most individuals would eat in a similar period of time under similar circumstances.
   2. A sense of lack of control over eating during the episode (e.g., a feeling that one cannot stop eating or control what or how much one is eating).

B. Recurrent inappropriate compensatory behaviours in order to prevent weight gain, such as self-induced vomiting; misuse of laxatives, diuretics, or other medications; fasting; or excessive exercise.

C. The binge eating and inappropriate compensatory behaviours both occur, on average, at least once a week for 3 months.

D. Self-evaluation is unduly influenced by body shape and weight.

E. The disturbance does not occur exclusively during episodes of anorexia nervosa.

(For specifiers, see DSM-5,

For a definitive diagnosis all of the following are required:

A. There is a persistent preoccupation with eating and an irresistible craving for food; the patient succumbs to episodes of overeating in which large amounts of food are consumed in short periods of time.

B. The patient attempts to counteract the fattening effects of food by one or more of the following: self-induced vomiting; purgative abuse; alternating periods of starvation; use of drugs such as appetite suppressants, thyroid preparations or diuretics. When bulimia occurs in diabetic patients they may choose to neglect their insulin treatment.

C. The psychopathology consists of a morbid dread of fatness and the patient sets herself or himself a sharply defined weight threshold, well below the pre-morbid weight that constitutes the optimum or healthy weight in the opinion of the physician. There is often but not always a history of an earlier episode of anorexia nervosa, the interval between the two disorders ranging from a few months to several years. This earlier episode may have been fully expressed or may have assumed minor cryptic form with a moderate loss of weight and/or a transient phase of amenorrhea.

p. 345.)

Note: DSM-5 diagnostic criteria are reprinted with permission from the *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition* (APA, 2013). Copyright © 2013 American Psychiatric Association. The material in the column headed ICD-10 is a summary of the clinical description and diagnostic guidelines for anorexia and bulimia nervosa. For the full official WHO clinical descriptions and diagnostic guidelines for these disorders see WHO, 1992, pp. 176–179.

Clinical features

Eating disorders are characterized by distinctive clinical features in the domains of behaviour, perception, cognition, emotion, social adjustment and physical health, as shown in Table 17.2 (Agras, 2010; Le Grange & Lock, 2011; Lock, 2012). At a behavioural level, restrictive eating is typical of anorexia. Clients report low calorific intake and eating low-calorie foods over a significant time period. Clients with anorexia present as thin or emaciated. They may wear baggy clothes to conceal the extent of their weight loss. In contrast, clients with bulimia are typically of normal weight. A cycle of restrictive eating, bingeing and compensatory behaviours is typical of bulimia. These compensatory behaviours may include vomiting, using diuretics and laxatives, or excessive exercising. Usually particular types of situations that are interpreted as threatening or stressful lead to a negative mood state and it is these that precipitate bouts of bingeing. Such situations include interpersonal conflicts, isolation, and small violations of a strict diet such as eating a square of chocolate. Bingeing may also arise from intoxication with alcohol or cannabis. While bingeing brings immediate relief, it also leads to physical discomfort and to guilt for not adhering to a strict diet. Purging relieves both guilt and physical discomfort but may also induce shame and fear of negative consequences of the binge–purge cycle. Parents of bulimic adolescents may describe specific routines that their children have developed to conceal their vomiting and excessive exercise, for example running the shower in the bathroom to mask the sound of them vomiting. In addition to abnormal eating patterns, young people with eating disorders – especially bulimia – may display a variety of self-destructive behaviours including self-injury, suicide attempts and drug misuse. These self-destructive behaviours are often construed as self-punishments for not living up to perfectionistic standards or attempts to escape from conflicts associated with self-worth and individuation.

With respect to perception, in most clinical cases of eating disorder there is a distortion of body image. The young person perceives the body or parts of the body such as the stomach, buttocks, thighs and so forth to be larger then they are. Young people with eating disorders may also have low interoception; that is, difficulty interpreting internal gastrointestinal and emotional stimuli. This makes it difficult to know when its appropriate for them to start and stop eating, and how to interpret their feelings and emotions.

With respect to cognition, there is a preoccupation with food that is a consequence of dietary restraint. Low self-esteem and low self-efficacy are also common. Thus, many young people with eating disorders view themselves as worthless and powerless, and see achieving a slim body shape and low body weight through dietary restraint as the route to an increased sense of control over their lives and increased self-worth. This process is often compounded by perfectionist tendencies and a wish to attain exceptionally high standards. In bulimia, repeated failure to sustain low-calorie intake leads to further self-criticism and low self-esteem and also strengthens the belief in lack of control. In anorexia, starvation directly affects cognitive processes. There is an increasing rigidity and inflexibility in thinking style and a gradual reduction in the capacity to concentrate. In all eating disorders, there may be conflict concerning dependence and maturity. On the one hand there may be a fear of maturity and independence; on the other there may be a wish to escape from parental control and the lack of autonomy and privacy that this entails.

Table 17.2 Clinical features of eating disorders in children and adolescents

Perception	*Distorted body image*
Thought	• Preoccupation with food • In bulimia, a belief in lack of control over bingeing • Conflict about individuation • Perfectionism • Low self-esteem and low self-efficacy
Emotion	• Intense fear of becoming fat • Depressive affect
Behaviour	• In anorexia, restricted food intake • In bulimia, bingeing • In bulimia, vomiting, using laxatives and excessive exercise to prevent weight gain • In bulimia, self-harm or substance abuse
Interpersonal adjustment	• Poor school performance • Withdrawal from peer relationships • Deterioration in family relationships
Physical complications	• Endocrine disorder affecting the hypothalamic-pituitary-gonadal axis manifested by amenorrhea • Starvation symptomatology such as reduced metabolic rate, bradycardia, hypotension, hypothermia and anaemia • Lanugo hair on the back • Delayed gastric emptying • Electrolyte abnormalities • Renal dysfunction • Zinc deficiency • In bulimia, erosion of dental enamel due to vomiting and lesions on

the back of the dominant hand due to use for initiating vomiting

With regard to emotional state, young people with eating disorders report an intense fear of fatness. In anorexia, low mood may arise from a failure to live up to perfectionist standards, and improvements in mood may occur when the urge to eat is resisted. In bulimia depressed or irritable mood may occur as a result of dietary restraint, or in response to life stresses. Such episodes of low mood lead to bingeing, which brings temporary relief. However, after binges, low mood may occur as a result of the sense of failure that this entails. Suicide attempts occur in up to 20% of patients with anorexia and 25% of those with bulimia (Franko & Keel, 2006). Suicidality in eating disorders is associated with depression, substance misuse, and a history of child physical and sexual abuse.

With respect to interpersonal adjustment, poor school performance, withdrawal from peer relationships and deterioration in family relationships may all occur during the development of eating problems. Many young people that develop eating disorders are described by their parents as model children, like Mar in Box 17.1, prior to the onset of the eating problems. This good pre-morbid adjustment is often, although not always, in stark contrast to the family and school-based relationship difficulties that arise once eating disorders become entrenched.

A wide variety of physical complications may also occur when children or adolescents develop eating disorders. These include an endocrine disorder affecting the hypothalamic-pituitary-gonadal axis manifested by amenorrhea or delayed onset of puberty; starvation symptomatology such as reduced metabolic rate, bradycardia, hypotension, hypothermia, and anaemia; lanugo hair on the back; delayed gastric emptying; electrolyte abnormalities; renal dysfunction; and zinc deficiency. In bulimia, erosion of dental enamel may occur due to vomiting, and lesions on the back of the dominant hand may develop if the hand is used to initiate vomiting. With both anorexia and bulimia a particularly serious concern is that the youngster may develop electrolyte abnormalities which may lead to a fatal arrhythmia.

Epidemiology

Anorexia nervosa and bulimia nervosa are most common among female adolescents (Hoek, 2006; Keel, 2010; Norris et al., 2011; Pinhas & Bondy, 2012). About 1–2% of the adolescent female population suffer from eating disorders. Anorexia is less common than bulimia. The average prevalence rates for anorexia nervosa and bulimia nervosa among young females are about 0.3–0.5% and 1–4%, respectively. The female to male ratio for anorexia and bulimia is about 9:1 in adolescents and 4:1 in pre-adolescents. The onset for anorexia usually occurs in adolescence, and the peak age of onset for bulimia is in later adolescence or young adulthood. Since 1960 there has been an increase in the incidence of eating disorders in the UK and the US, largely accounted for by increases in rates of bulimia rather than anorexia. Since the 1990s in the UK rates of bulimia have begun to decline (Currin et al., 2005). While eating disorders may be more common in Western industrialized countries, there is growing evidence of eating disorders in non-westernized cultures. In clinical rather than community populations, co-morbid mood disorders and obsessive-compulsive disorders are common in cases of anorexia, and for bulimia co-morbid drug misuse and borderline personality disorder are relatively common.

The outcome for eating disorders is poor for a significant minority of cases (American Psychiatric Association, 2006; Arcelus et al., 2011; Gowers, 2013; NICE, 2004c; Steinhausen, 2002, 2011; Stice, 2002), but this can be improved with early intervention and evidence-based treatment. Arcelus et al. (2011) found that the standardized mortality ratios were 5.86 for anorexia and 1.93 for bulimia, per 1,000 person-years. For anorexia nervosa about half of all cases have a good outcome, a third have a moderate outcome and a fifth have a poor outcome. Among those who die prematurely, starvation and suicide are the principal causes of death. A fifth of such deaths are due to suicide. For anorexia a poor prognosis is associated with lower weight, a more chronic condition, the absence of a clear precipitating stressful life event, bulimic symptoms, co-morbid obsessive-compulsive disorder, problematic family relationships, dropping out of treatment and lower social class. For bulimia nervosa about half of all cases have a good outcome, a quarter have a moderate outcome and the remaining quarter have a poor outcome. A poor prognosis in bulimia is associated with later onset, a more chronic condition, more frequent bingeing and vomiting, greater body dissatisfaction, higher perfectionism, co-morbid substance abuse, impulsive personality disorders, and lower social class. Risk factors identified in an extensive review of longitudinal and cross-sectional studies for eating disorders are given in Table 17.3 (Jacobi et al., 2004, 2010).

Table 17.3 Risk factors for eating disorders

Risk factors common to anorexia and bulimia nervosa	*Risk factors unique to anorexia nervosa*	*Risk factors unique to bulimia nervosa*
• Female • Adolescent • Genetic factors • Pregnancy complications • Child sexual abuse • Physical neglect in childhood • Gastrointestinal problems, picky eating and eating conflicts in childhood • Childhood anxiety disorder • Stressful life events in childhood and adolescence	• Preterm birth/birth trauma • Infant feeding and sleep problems • High-concern parenting in early childhood • Obsessionality	• Childhood obesity • Social phobia in adolescence • Parental criticism about weight, high expectations and low contact in adolescence

• Weight concerns and dieting in adolescence • Low social support in adolescence • Low self-esteem • Ineffectiveness • Low interoception (difficulty interpreting internal gastrointestinal and emotional stimuli) • Avoidant coping	(OCD, OCPD) in adolescence • Perfectionism in adolescence • Neuroticism • Weight sub-culture (dancer, model, athlete) • Acculturation	• Parental obesity in adolescence • Parental depression, drug and alcohol problems in adolescence

Note: Based on Jacobi et al. (2004) and Jacobi & Fittig (2010).

Aetiological theories

Under normal circumstances hunger motivates people to eat until they have the experience of ‘being full’ and most of the time their weight is remarkably stable, as if homeostatically governed. When people try to slim through restrained eating, they experience chronic hunger, negative affect, and become preoccupied with food. In response to these negative experiences, most people give up dieting and return to their usual eating habits and normal body weight. People who develop anorexia, however, redouble their efforts to maintain a pattern of restrained eating when they experience hunger, negative affect and intense food pre-occupation. In contrast, people who develop bulimia engage in bingeing when the negative effects of restrained eating and life stresses make them feel bad and later engage in compensatory purging. Biological, psychodynamic, cognitive-behavioural and systemic theories have been developed to explain the aetiology, course and treatment of eating disorders. A summary of the central features of each of these types of theory is presented in Table 17.4, along with the key implications of each for treatment.

Biological theories

Hypotheses have been proposed to explain the role of a number of biological factors in the development and course of eating disorders. These have focused on genetics, mood dysregulation and starvation-related processes. Genetic and mood dysregulation hypotheses posit a role for each of these factors in the aetiology of eating disorders, while starvation theories are concerned primarily with the way in which the biological sequelae of self-starvation contribute to the maintenance of abnormal eating patterns.

Table 17.4 Theories of eating disorders

Theory	*Theoretical principles*	*Principles of treatment*
Genetic theory	Genetic factors render people vulnerable to eating disorders when exposed to particular sorts of life stress.	Psychoeducation about genetic predisposition to eating disorders and management of life stresses that precipitate onset of eating disorders
Mood dysregulation theory	Eating disorders are an expression of an underlying depressive mood disorder associated with abnormal serotonergic neurotransmission.	Use psychotherapy and antidepressant medication (SSRI) to treat eating disorders
Starvation theory	Anorexia and bulimia are partly maintained by neuroendocrine and gastric changes that result from starvation.	Offer patients with eating disorders refeeding, rehydration and management of medical complications to treat the starvation syndrome to help them become accessible to psychotherapy
Psychoanalytic theory	Children with eating disorders have difficulty learning how to interpret need-related internal physiological states and developing a coherent sense of self because their mothers adopt a parenting style in which parental needs for control and compliance take primacy over the child's needs for self-expression and autonomy. In adolescence the fear of fatness, obsession with food, and guilt for eating are part of an attempt to manage a central conflict related to the attainment of	Psychodynamic psychotherapy that facilitates insight into the way early relationships effect current relationships with the therapist and significant others, with particular reference to

	autonomy and a coherent sense of self.	autonomy and individuation issues
Cognitive-behavioural theory	Psychologically vulnerable young people with negative core beliefs and assumptions exposed to stressful events engage in dieting behaviour in response to critical comments from others. Weight loss becomes positively reinforcing and the avoidance of fatness and criticism for being overweight is negatively reinforcing. Negative automatic thoughts and cognitive distortions also maintain these destructive eating patterns. The impact of both the reinforcement contingencies and these cognitive factors on the young person's eating behaviour becomes more pronounced when the eating disorder becomes entrenched and the starvation syndrome develops. With bulimia extreme hunger resulting from dieting in conjunction with triggering events that elicit negative affect lead to bingeing. Binges are followed by distorted cognitions and related negative affect which in turn leads to purging. Purging initially is reinforcing since it brings relief. Later, guilt and fear about the effects of purging leads to increased dietary restraint until the cycle repeats.	Contingency management so that weight gain is reinforced Cognitive therapy in which alternatives to cognitive distortions are learned Exposure (to situations that usually trigger bingeing) and response prevention for bulimia
Sociocultural theory	Cultural norms that value slimness and promote dieting in societies where food is plentiful predispose people to eating disorders.	Psychoeducation about sociocultural pressures
Lifecycle transition and stress theory	A build-up of stressful life events during individual or family lifecycle transitions precipitate anorexia and bulimia.	Support individuals and families in management of stresses related to lifecycle transitions Family therapy where parents

Family systems theory	Family relationship factors may predispose young people to developing eating disorders or maintain problematic eating behaviour. These family factors include enmeshment, rigidity, conflict avoidance and triangulation. Family values such as an ethic of self-sacrifice, the rejection of personal leadership by the parents, blame-shifting and the use of unclear communication may also maintain eating disorders.	take an active role in refeeding the young person and then develop boundaries and roles appropriate to the adolescent's stage of development. The parents are helped to let the adolescent develop age-appropriate autonomy

Genetic theories. The genetic hypothesis proposes that a biological predisposition to eating disorders is genetically transmitted and that individuals with this predisposition when exposed to certain environmental conditions develop an eating disorder. Evidence from twin and family studies show unequivocally that genetic predisposing factors contribute moderately to the aetiology of eating disorders and that they are 50–83% heritable (Klump et al., 2009; Racine et al., 2011; Wade, 2010). Positive findings from candidate gene studies focusing on serotonin, dopamine and other neurotransmitter systems and on genes involved in body weight regulation have not been substantiated in meta-analyses (Scherag et al., 2010). There is some evidence that appetite and satiety dysregulation renders people vulnerable to the development of eating disorders and that this vulnerability may be polygenetically determined (Stice et al., 1999). Collier and Treasure (2004) propose that genetic factors contribute to temperamental dispositions that underpin the development of personality traits associated with eating disorders. These may be conceptualized as falling along a continuum from restrictive, anorexia-like disorders to disinhibited, bulimic-like disorders. The predisposing personality traits of perfectionism, harm avoidance and depression may be the personality traits which place people at risk for developing both restrained, anorexic-like and disinhibited, bulimic-like eating disorders. Compulsivity and inflexibility may be the personality traits that place people at specific risk for developing restricting, anorexia-like disorders. Impulsivity and novelty-seeking may be the personality traits that place people at specific risk for developing disinhibited, bulimia-like eating disorders. The assumption in this proposal is that the biological basis for each of these personality traits is polygenetically determined, and that through interaction with the environment the traits develop and predispose the person to developing an eating disorder.

Mood dysregulation theory. It has been proposed that eating disorders are an expression of an underlying mood disorder (Vögele & Gibson, 2010). Depression is often present in the family histories of people with eating disorders, along with other mood regulation difficulties such as substance misuse and borderline personality disorder. If anorexia and bulimia are fundamentally mood disorders, then a plausible hypothesis is that eating disorders arise from a dysregulation of the serotonergic neurotransmission system in those centres of the brain that subserve mood, similar to that found in depression. Considerable evidence suggests that abnormalities in the serotonergic neurotransmission system contributes to dysregulation of mood as well as appetite and impulse control in eating disorders (Kaye, 2008). The neurotransmission/mood dysregulation hypothesis has led to controlled trials of antidepressants for eating disorders, mainly conducted with young adults. Both selective serotonin reuptake inhibitors (SSRI) and tricyclic antidepressants (TCA) have been found to lead to short-term improvements in bulimia but have limited impact on anorexia nervosa (Couturier & Spettigue, 2011; Hagman & Frank, 2012; McElroy et al., 2010; Wilson & Fairburn, 2007). In the treatment of young people, when cognitive-behavioural therapy (CBT) for bulimia nervosa is ineffective, SSRIs may be added as an adjunct to CBT.

Starvation theory. The starvation hypothesis proposes that eating disorders follow a chronic course because they are partly maintained by biological abnormalities and related psychological changes caused by starvation (Kaye & Oberndorfer, 2010; Zucker & Harshaw, 2012). Evidence from studies of people with anorexia and bulimia and participants in starvation laboratory experiments show that the neuroendocrine abnormalities and changes in gastric functioning that arise from experimentally induced starvation are similar to those observed in patients with eating disorders (Frichter & Pirke, 1995; Singh, 2002). More pronounced changes occur in anorexia than bulimia. Starvation-related neuroendocrine changes occur in the hypothalamic-pituitary-gonadal axis which governs reproductive functioning. They also occur in the hypothalamic-pituitary-adrenal axis and the hypothalamic-pituitary-thyroid axis which govern mood, appetite, arousal and other vegetative functions. In addition, there is evidence that starvation leads to delayed gastric emptying and that this reduces hunger perception. Neuroimaging studies show that anorexia and bulimia lead to reduced cortical mass and altered functioning of the taste and reward processing regions of the brain with some degree of normalization after recovery (Kaye & Oberndorfer, 2010). These biological changes are accompanied by a preoccupation with eating, a heightened sense of being full, an increased ability to rigidly regulate negative mood states, rigid obsessionality and social withdrawal (Fairburn, 2008). Rigid obsessionality and difficulty set shifting are predisposing neuropsychological traits for anorexia which are exacerbated by starvation-related biological abnormalities (Kanakam & Treasure, 2013). One implication of starvation theories is that a distinction should be made between refeeding programmes, which aim to reverse the starvation process by helping patients regain weight to render them accessible to psychological interventions by increasing their cognitive flexibility, and later therapy in which the maintenance of normal body weight and eating patterns are the principal goals. This distinction is central to effective forms of family therapy for early-onset anorexia nervosa (Lock & Le Grange, 2012).

Psychoanalytic theory. Psychoanalytic explanations of eating disorders focus on the role of intrapsychic factors in the genesis and maintenance of self-starvation. Hilda Bruch (1973, 1978) argued that the psychodynamics which underpin anorexia arise from early childhood experiences. According to Bruch, the mothers of anorexic girls adopt a parenting style in which parental needs for control and compliance take primacy over the child's needs for self-expression and autonomy. The child has difficulty learning how to interpret need-related internal physiological states and in developing a coherent sense of self separate from caregivers. In adolescence the fear of fatness, obsession with food and guilt for eating are part of an attempt to manage a central conflict related to the attainment of autonomy and a coherent sense of self. The young person experiences a fear of separation from parents and a fear of being overly controlled by the parents; a fear of maturation, sexuality, intimacy and independence; and a fear of having little control over the self or body size (as a symbol of self). This conflict about autonomy is characterized by low self-esteem coupled with perfectionistic strivings to improve the self. There is ample evidence for distorted body image, low interoception, maturity fears, perfectionism, low self-esteem, the use of suppression as a coping strategy and low self-directedness among people with eating disorders (Cassin & von Ranson, 2005; Jacobi & Fittig, 2010; Jacobi et al., 2004). There is also some evidence for problematic parent–child relationships as precursors of eating disorders (Jacobi & Fittig, 2010; Striegel-Moore & Bulik, 2007). Over-concerned parenting in childhood is a risk factor for anorexia. Parental criticism about weight, high expectations and low contact with parents in adolescence are associated with bulimia. Parental criticism has an important negative effect on the course of eating disorders (Dodge, 2012).

Results of a small number of trials suggest that psychodynamic psychotherapy may be effective as a treatment for eating disorders in adults, but not adolescents (Dancyger et al., 2013; Thompson-Brenner et al., 2009). The Maudsley group, in their controlled trials of psychodynamic psychotherapy with young adults, working within the context of Malan's (1995) psychodynamic therapy model, have found that a unique psychodynamic focal hypothesis may be formed for each patient and that Bruch's themes typically characterize these focal hypotheses. Psychoanalytic psychotherapy, as practiced by the Maudsley group, aims to help the patient gain insight into the way in which the psychodynamics of past relationships with parents underpin the transference–countertransference, patient–therapist relationship and the relationships that the patient has with other significant people in their lives. In addition, psychoanalytic psychotherapy facilitates the patient's search for less destructive ways to assert autonomy from the parents and develop a strong sense of personal identity.

Cognitive-behavioural theory. Stewart's (2005) cognitive-behavioural model of child and adolescent eating disorders represents a synthesis of models from the adult literature (Wilson, 2010) and important concepts from the developmental psychology of eating disorders (Lask & Bryant-Waugh, 2013; Lock, 2012). The model assumes that youngsters are rendered vulnerable to eating disorders by predisposing individual and environmental factors. Individual factors include low self-esteem, perfectionism, and past obesity. Environmental factors include physical and sexual abuse; neglect; parental under-involvement or over-protection; parental criticism and high expectations; parental conflict; a family history of depression, substance abuse or eating disorders; and societal and family pressures to be thin. These predisposing factors contribute to the development of negative core beliefs such as 'I am worthless,' 'I am unlovable,' or 'I am unattractive.' These core beliefs lead to the development of assumptions. The central assumption in eating disorders is: 'If I am not thin / light / in full control of my weight and shape, then I am worthless / unlovable / unattractive / will never be happy.' While these beliefs and assumptions develop during childhood, they do not have a significant effect on the young person's life until they are activated by a series of critical stressful demands associated the transition to adolescence and other life stresses.

Demands associated with adolescence include adjusting to the biological changes associated with puberty, developing independence, coping with the increased complexity of peer group and romantic relationships, managing the challenges of school and work pressures, and developing an identity. Additional demands that occur within the context of these normative pressures which trigger negative beliefs and assumptions include negative comments about weight and shape, exposure to peer rejection, academic failure, family conflict and abuse. Once core beliefs and assumptions have been activated in specific types of day-to-day situations, they give rise to negative automatic thoughts conducive to dieting. For example, when dressing or looking in the mirror, the youngster may think 'I'm too heavy, too fat and too ugly'; or when hungry or eating the youngster may think 'I'm not in control.'

Negative automatic thoughts typically involve cognitive distortions. Here are some examples of cognitive distortions typical of youngsters with eating problems:

- *All-or-nothing thinking*: Thinking in extreme categorical terms. For example, 'If I'm not in complete control, then I have no control whatsoever' or 'if I'm not thin, I must be fat.'
- *Catastrophizing*: Thinking about the worst possible outcome and assuming it will definitely occur. For example, 'if I eat a biscuit, I will definitely binge all day.'
- *Magnification and minimization*: Exaggerating the significance of negative experiences or weaknesses and discounting the significance of positive experiences or strengths. For example, 'I gained a pound, so I know that I will never be able to wear a miniskirt again,' or 'I didn't binge all week, but that doesn't count because I binged all

weekend.'

- *Selective abstraction*: Selectively focusing on a small aspect of a situation and drawing conclusions from this. For example, 'I will only be good if I am thin and nothing else matters.'
- *Over-generalization*: Generalizing from one instance to all possible instances. For example, 'I ate too much last night, so I will always eat too much.'
- *Personalization*: Attributing real or imagined negative events to the self without supportive evidence. For example, 'if people see me, I will ruin their day because I'm fat,' or 'I caused my parents to separate.'
- *Emotional reasoning*: Taking feelings as facts. For example, 'I feel fat so I am fat.'
- *Mental filtering*: Focusing on one negative aspect of a situation and filtering out all positive aspects of the situation. For example, thinking that one person in my class is thinner than I am (while filtering out the fact that 25 people in the class are not).
- *Mind-reading*: Assuming without evidence that other people are thinking negative thing about you. For example, 'I know by the way they are looking at me that they think I'm really fat.'
- *Double standards*. Having more stringent standards for the self than for others. For example, 'it's OK for others to be a few pounds overweight but it's not OK for me.'

According to the cognitive-behavioural model, cognitively distorted negative automatic thoughts lead to the development of an entrenched behavioural pattern of dietary restraint.

Once negative automatic thoughts involving an over-valuation of shape and weight control, and the related behaviour pattern of dietary restriction have become a routine part of a youngster's life, they come to be maintained by emotional factors, behavioural factors, family factors, social factors, avoidance, the starvation state, and bingeing and purging. The emotional factors that maintain restricted eating include the associated sense of mastery and control for eating little, the sense of being special for becoming thin, the associated increase in self-esteem for achieving perfectionistic weight and shape goals, and the alleviation of low mood and high anxiety that such increases in self-esteem may bring. Behavioural factors such as weighing and checking the size of body parts increases the salience of perceived deficits in body weight and shape which in turn increases motivation for restrained eating. Family factors that maintain restricted eating include family approval and attention for weight loss; the sense of having control within the family that dietary restriction brings; and the continued dependence on the family that comes with excessive weight loss, which may be particularly reinforcing for youngsters who fear independence. Peer approval for weight loss is a social factor that maintains dietary restriction. By providing a predictable and regimented lifestyle, dietary restriction allows youngsters to avoid anxiety about the complexity and uncertainty of normal adolescent life. The starvation state may maintain restricted eating patterns because it entails a loss of appetite, lack of energy, constricted lifestyle and obsessional cognitive rigidity, all of which make changing restrictive eating patterns difficult. In youngsters with bulimia, the binge–purge cycle may be self-maintaining. Bingeing may offer short-term relief from negative affect associated with specific situations but may later induce guilt and negative self-evaluation, which in turn may be alleviated by purging. Hunger arising from dietary restriction in conjunction with triggering events that elicit depression, anger or anxiety give way to bingeing. Binges are followed by distorted cognitions about the significance of the bingeing and the negative implications of bingeing both for body shape and self-evaluative beliefs. These cognitions and related negative affect in turn lead to purging, laxative use, diuretic use or excessive exercise. Purging initially is reinforcing since it brings relief. However, later guilt and fear about the long-term physical and psychological consequences occurs. This is followed by increased dietary restraint until the cycle repeats.

For older adolescents and young adults with bulimia, cognitive-behavioural therapy is the treatment of choice (Campbell & Schmidt, 2011; Gowers & Green, 2009; Hay, 2013; Watkins, 2013). This therapy helps patients to map out the binge–purge cycle, to monitor eating patterns and related cognitions and contingencies, and use cognitive and behavioural strategies to disrupt the cycle and manage relapses. These include avoiding trigger situations or habituating to them through exposure and response prevention routines similar to those used for obsessive-compulsive disorder. A second set of strategies involves using cognitive therapy to help patients interpret potential trigger situations in ways that do not lead to negative affect and bingeing. A third strategy involves helping patients avoid persisting with bingeing once it starts by coaching them in countering self-deprecatory cognitions and related negative mood states that occur one bingeing starts.

Sociocultural theories. Sociocultural theories highlight the role of broad cultural factors such as the idealization of female thinness specific to particular societies, notably those prevalent in Western industrialized nations, in predisposing individuals to developing eating disorders (Nasser & Katzman, 2003). Evidence supporting the sociocultural position allows the following conclusions to be drawn (Levine & Murnen, 2009; Levine & Smolak, 2010). Epidemiological studies consistently show that eating disorders exist internationally but are more prevalent in Western societies where food is plentiful, thinness is valued and dieting is promoted. Eating disorders are more prevalent among groups under greater social pressure to achieve the slim aesthetic ideal such as dancers, models and athletes. Westernization, modernization, and exposure to transnational mass media advocating the thin ideal is a risk factor for eating disorders. The prevalence of eating disorders is higher in ethnic groups that move from a culture that does not idealize the thin female form to a culture that does. While these findings point to the importance of sociocultural factors in predisposing individuals to developing eating problems, not all dieters develop anorexia or bulimia. Precipitating factors such as stressful life events, lifecycle transitions, and the presence of other individual genetic, neurobiological, psychological or family factors probably contribute to the development of eating disorders (Mazzeo & Bulik, 2009).

Lifecycle transition and stress theories. These theories argue that a build-up of stresses at particular points in the individual and family lifecycles may precipitate the onset of an eating disorder or prevent the rapid resolution of a potential eating disorder, particularly in cases where biological and psychosocial predisposing factors are already present (e.g. Crisp, 1983; Dare, 1985; Serpell & Troup, 2003). At an individual level, Crisp (1983) argued that when youngsters have particular difficulties dealing with the physical and emotional changes that coincide with the transition to adolescence, an eating disorder may occur since it allows youngsters to avoid the challenges posed by adolescence. At a family level, Dare (1985) proposed that the co-occurrence of a number of critical transitional stresses such as the onset of puberty in a younger child, an older child leaving home, or the loss of a grandparent may place excessive demands upon family members to develop new roles, routines and support systems. The development of an eating disorder provides families with a period of respite where routines, roles and supports appropriate to a previous stage of the family lifecycle may continue to be used, so that families may maintain the status quo rather than negotiating changes appropriate to the next stage of the family lifecycle. Both of these theories are supported by evidence for the association between eating disorders and stressful life events in adolescence. Serpell and Troup (2003) proposed that childhood adversity (including neglect, sexual abuse and family conflict), helplessness, low self-esteem and rigid perfectionism predispose people to developing eating disorders. In response to sociocultural pressures for thinness, these four factors give rise to four intermediate predisposing factors: (1) dietary restraint, (2) low shape and weight-based self-esteem, (3) disgust of food and food-related body stimuli and (4) bodily shame. When stressful life events that involve managing complex interpersonal situations and relationships arise in people who have these vulnerability factors, an eating disorder may occur. Empirical research confirms that the peak age of onset for anorexia and bulimia is in mid-adolescence, and a build-up of stressful life events often precipitates the onset of anorexia and bulimia. Typically this is more common among young people with a number of vulnerability factors, such as those listed in Table 17.3, as suggested by lifecycle transition and stress theories (Jacobi & Fittig, 2010).

Family systems theories. Family systems theories of anorexia point to a number of organizational features that may be predisposing or maintaining factors for eating disorders (Le Grange & Lock, 2007; Lock & Le Grange, 2012). For example Minuchin et al. (1978) characterized the families of teenagers with anorexia as enmeshed and rigid with a strongly over-protective attitude towards the child. He also argued that there was a lack of conflict resolution and an involvement of children in parental conflicts. Selvini Palazzoli (1988) pinpointed the following features as typical of the anorexic family: an ethic of self-sacrifice; the rejection of personal leadership by the parents; blame-shifting, since everything is done for the good of others; unclear communication; and secret alliances between parents and the child which go hand-in-hand with covert marital dissatisfaction. Weber and Stierlin (1981) suggested that a process occurs where individuation in adolescence is complicated by the child's fantasy that the parents will have nothing left in common when the child matures and gains autonomy. The youngster copes by playing the role of a model child but eventually the parents become interested in another child or pursuit. The child retaliates by doggedly pursuing autonomy through self-starvation which achieves the twin gains of providing a type of pseudo-autonomy centring on control of the shape of the body and eliciting parental attention which has been lost.

Available empirical evidence clearly shows that there is not a single dysfunctional family constellation (a psychosomatic family) that causes anorexia and bulimia (Holtom-Viesel & Allan, 2014). Families of young people with eating disorders report worse family functioning than families of typically developing adolescents, and those with more positive perceptions of family functioning generally have a more positive outcome irrespective of the severity of the eating disorder. Family dysfunction probably reflect the family's attempts to cope with the eating disorders which inadvertently maintains problematic eating habits (Dodge, 2012). The various patterns of family organization that have been found in studies of youngsters with eating disorders probably reflect extreme forms of relational styles that preceded the onset of eating disorders. Families that value closeness may find that the experience of coping with a chronic eating disorder is an isolating process and this may lead them to strive for greater closeness. Families in which predictable routines are valued may become extremely rigid in response to a youngster's self-starvation. Consistent with these hypotheses is the finding that members of families with an anorexic child in a questionnaire study that examined the difference between the actual and desired family structure described themselves as isolated and constrained by overly rigid expectations within their families (Eisler, 1995). That families who deal with conflict by occasional conflict avoidance may cope with eating disorders by showing extreme conflict avoidance is supported by the results of expressed emotion studies. These consistently show that families with eating disorders are characterized by very low levels of expressed emotion, including both criticism and emotional over-involvement, compared with families containing teenagers or adults with other psychological problems such as schizophrenia (Eisler, 1995). Furthermore, the families of youngsters with eating disorders who show the highest levels of criticism tend to contain youngsters with more chronic eating disorders and are more likely to drop out of treatment.

Controlled treatment outcome studies of family therapy for anorexia and bulimia show that 1–6 years following treatment, 60–90% are fully recovered, and at present it is the treatment of choice for young adolescents with anorexia and a promising treatment for bulimia (Downs & Blow, 2013; Lock, 2011). With older adolescents and young adults with anorexia and bulimia there is some evidence that individual therapy may be more effective than family therapy. In the Maudsley group's evidence-based family therapy for adolescent eating disorders, treatment progresses from refeeding the adolescent or normalizing their binge–purge eating cycle, to negotiating a new pattern of family relationships, and finally to addressing adolescent individuation issues and therapy termination (Le Grange, 2011; Lock, 2011).

Assessment

Assessment in cases of anorexia nervosa should be conducted by a multidisciplinary team and include a full physical examination and appropriate medical investigations. Where any of the following features are present, inpatient treatment is indicated (American Psychiatric Association, 2006; Hart, 2013; Katzman & Findlay, 2011; Katzman et al., 2010; Laird Birmingham & Treasure, 2010; Lask & Bryant-Waugh, 2013; NICE, 2004c; Royal College of Psychiatrists, 2010):

- weight is less than 70% of that expected
- marked dehydration
- electrolyte imbalance
- circulatory failure
- uncontrolled vomiting
- gastrointestinal bleeding
- self-injurious behaviour
- severe depression
- lack of response to outpatient treatment
- intolerable family situation.

Details of a weight restoration programme for use with hospitalized anorectic youngsters are described next. Height and weight measurements may be used to chart changes in children's body mass index (Cole et al., 1995). Precautions must be taken to ensure that adolescents do not artificially increase their weight by putting weights in their pockets or drinking excess fluid prior to weighing. Some psychometric instruments that may be useful in the assessment of youngsters with eating disorder are listed in Table 17.5. Assessment should include family and individual interviews addressing all areas routinely covered in a thorough intake interview as set out in Chapter 4. Particular attention should be paid to those factors outlined in Figure 17.1 (Agras, 2010; Lask & Bryant-Waugh, 2013; Le Grange & Lock, 2011).

Table 17.5 Instruments for the assessment of eating disorders

Construct	*Instrument*	*Publication*	*Comments*
		Cole, T., Freeman, J., & Preece, M.	

Body weight	Body mass index (BMI) tables	(1995). Body mass index reference curves for the UK, 1990. *Archives of Disease in Childhood, 73*, 25–29. Charts are available from Harlow Printing: http://www.harlowprinting.co.uk/	
Screening instruments for eating disorders	Setting Conditions for Anorexia Nervosa Scale (SCANS)	Slade, P., & Dewey, M. (1986). Development and preliminary validation of SCANS: A screening instrument for identifying individuals at risk of developing anorexia and bulimia nervosa. *International Journal of Eating Disorders, 5*, 517–538. Slade, P., Dewey, M., Kiemle, G., & Newton, T. (1990). Update on SCANS: A screening instrument for identifying individuals at risk of developing an eating disorder. *International Journal of Eating Disorders, 9*, 583–584.	This 40-item instrument may be used t screen childre and adolescents at risk for eating disorders. It assesses dissatisfaction and loss of control, social and personal anxiety, perfectionism, adolescent problems and need for weight control It was standardized i the UK on large samples of children an adolescents.
	Kids Eating Disorder Survey (KEDS)	Childress, A., Brewerton, T., Hodges, E., & Jarrell, M. (1993). Kids Eating Disorder Survey (KEDS). A study of middle school children. *Journal of the American Academy of Child and Adolescent Psychiatry, 32*, 843–	With this 14-item scale children rate drawings of male and female bodies ranging from underweight t overweight and indicate their satisfaction

	850.	with their perceived body size.
Children's Version of the Eating Attitudes Test (ChEAT)	Maloney, M., McGuire, J., & Daniels, S. (1988). Reliability testing of the Children's Version of the Eating Attitudes Test. *Journal of the American Academy of Child and Adolescent Psychiatry, 27*, 541–543.	Scores above 20 on this 26-item screening self-report instrument suggest that a child between 8 and 13 may have anorexia or bulimia.
Eating Attitudes Test (EAT)	Garner, D., Olmsted, M., Bohr, Y., & Garfinkle, P. (1982). The Eating Attitudes Test, psychometric features and clinical correlates. *Psychological Medicine, 12*, 871–878.	Scores above 40 on this 26-item screening self-report instrument suggest that a teenager over 13 may have anorexia or bulimia.
Questionnaire for Eating Disorder Diagnoses (Q-EDD)	Mintz, L., O'Halloran, M., Mulholland, A., & Schneider, P. (1997). Questionnaire for Eating Disorder Diagnoses. Reliability and validity of operationalizing DSM-IV criteria into a self-report format. *Journal of Counselling Psychology, 44*, 63–71.	This 50-item self-report inventory yields DSM-IV eating disorder diagnoses in adolescents and adults.
Body Shape Questionnaire (BSQ).	Cooper, P., Taylor, M., Cooper, Z., & Fairburn, C. (1987). The Development and validation of the Body Shape Questionnaire. *International Journal of Eating Disorders, 6*, 485–494.	This 34-item self-report inventory assesses body weight and shape dissatisfaction.
	Slade, P., Dewey, M., Newton, T., Brodie, D., & Kiemle, G. (1990).	On this 16-item scale respondents

	Body Satisfaction Scale (BSS)	Development and preliminary validation of the Body Satisfaction Scale (BSS). *Psychology and Health, 4*, 213–220.	rate satisfaction with 16 body parts and the scale yields an overall body satisfaction score.
	Revised Bulimia Test (BULIT-R)	Thelen, M., Farmer, J., Wonderlich, S., & Smith, M. (1991). A revision of the bulimia test: The BULIT-R. *Psychological Assessment, 3*, 119–124.	A self-report inventory based on DSM-III-R criteria for bulimia.
	Bulimia Investigatory Test Edinburgh (BITE)	Henderson, M., & Freeman, C. (1987). A self-rating scale for bulimia: The 'BITE'. *British Journal of Psychiatry, 150*, 18–24.	A self-report scal for screening for bulimia.
Eating attitudes, behaviour and related personality and family dimensions	Eating Disorder Inventory – Third Edition (EDI-3)	Garner, D. (2005). *Eating Disorder Inventory-3 (EDI-3)*. Lutz, FL: Psychological Assessment Resources.	This 91-item inventory yields scores on 12 primary scales, consisting of three eating-disorder-specific scales and nine general psychological. It also yields six composites eating disorde risk, ineffectiveness interpersonal problems, affective problems, over-control and general psychological

		maladjustmen Norms for group of US high school and college studen and anorexia and bulimia patients are available. Computer administration and scoring ar available.
Eating Disorder Inventory for Children (EDI-C)	Garner, D. M. (1991a). *Eating Disorders Inventory*. C. Lutz, FL: Psychological Assessment Resources.	A children's adaptation of the EDI.
Stirling Eating Disorder Scales (SEDS)	Williams, G., Power, K., Miller, H., Freeman, C., Yellowlees, A., Dowds, T., Walker, M., & Parry-Jones, W. (1994). Development and validation of the Stirling Eating Disorder Scales. *International Journal of Eating Disorders, 16*, 35–43.	This 80-item inventory yields score o eight scales: anorexic dietary behaviour, anorexic dietary cognitions, bulimic dietar behaviour, bulimic dietar cognitions, external locus of control, low assertiveness, low self-esteem and self-directed hostility.
		Versions of the PARQ are completed by adolescents

	Parent–Adolescent Relationship Questionnaire (PARQ)	Robin, A., Koepke, T., & Moye, A. (1990). Multidimensional assessment of parent adolescent relations. *Psychological assessment: Journal of Consulting and Clinical Psychology, 2*, 451–459.	and parents. They yield (among other indices) a scor for parent adolescent conflict over eating and a general parent–adolescent conflict score which are particularly relevant to the assessment of families containing teenagers wit eating disorders.
Clinical interviews for diagnosing eating disorders	Eating Disorder Examination (EDE)	Cooper, Z., & Fairburn, C. (1987). The Eating Disorder Examination. A semistructured interview for the assessment of the specific psychopathology of eating disorders. *International Journal of Eating Disorders, 6*, 1–8. Bryant-Waugh, R., Cooper, P., Taylor, C., & Lask, B. (1996). The use of the Eating Disorder Examination with children. A Pilot Study. *International Journal of Eating Disorders, 19*, 391–398. Fairburn, C. G., & Bèglin, S. J. (1994). Assessment of eating disorders: Interview or self-report questionnaire? *International Journal of Eating Disorders, 16*, 363–370. Palmer, R., Christie, M., Cordle, C.,	An interview schedule for use with adolescents and adults developed in the UK and widely considered to be the gold standard in the area. It has been adapted for use with children by Rachel Bryant-Waugh. A questionnaire version is available (the EDE-Q).

	Clinical Eating Disorder Rating Instrument (CEDRI)	& Kendrick, J. (1987). The clinical eating disorder rating instrument (CEDRI): A preliminary description. *International Journal of Eating Disorders, 6*, 9–16.	An interview schedule for use with adolescents and adults.
	Structured Interview for Anorexia and Bulimia Nervosa (SIAB)	Fichter, M., Elton, M., Engel, K. et al (1990). The Structured Interview for Anorexia and Bulimia Nervosa (SIAB): development and characteristics of a (semi-)standardized ins*trument*. In M. Fichter (Ed.), *Bulimia nervosa: Basic Research Diagnosis and Therapy* (pp. 57–70). Chichester: Wiley.	An interview schedule for use with adolescents and adults.
	Interview for the Diagnosis of Eating Disorders (IDED)	Williamson, D. (1990). *Assessment of eating disorders. Obesity, anorexia and bulimia nervosa.* Elmsforth, NY: Pergamon.	An interview schedule for use with adolescents and adults.
Outcome of eating disorders	Morgan-Russell Outcome Assessment Schedule	Morgan, A., & Hayward, A. (1988). Clinical assessment of anorexia nervosa: the Morgan-Russell Outcome Assessment Schedule. *British Journal of Psychiatry, 152*, 367–371.	A schedule for assessing outcome as good, intermediate or poor depending upon their status on five scales: nutritional status, menstrual function, mental state, psychosexual and socio-economic adjustment.

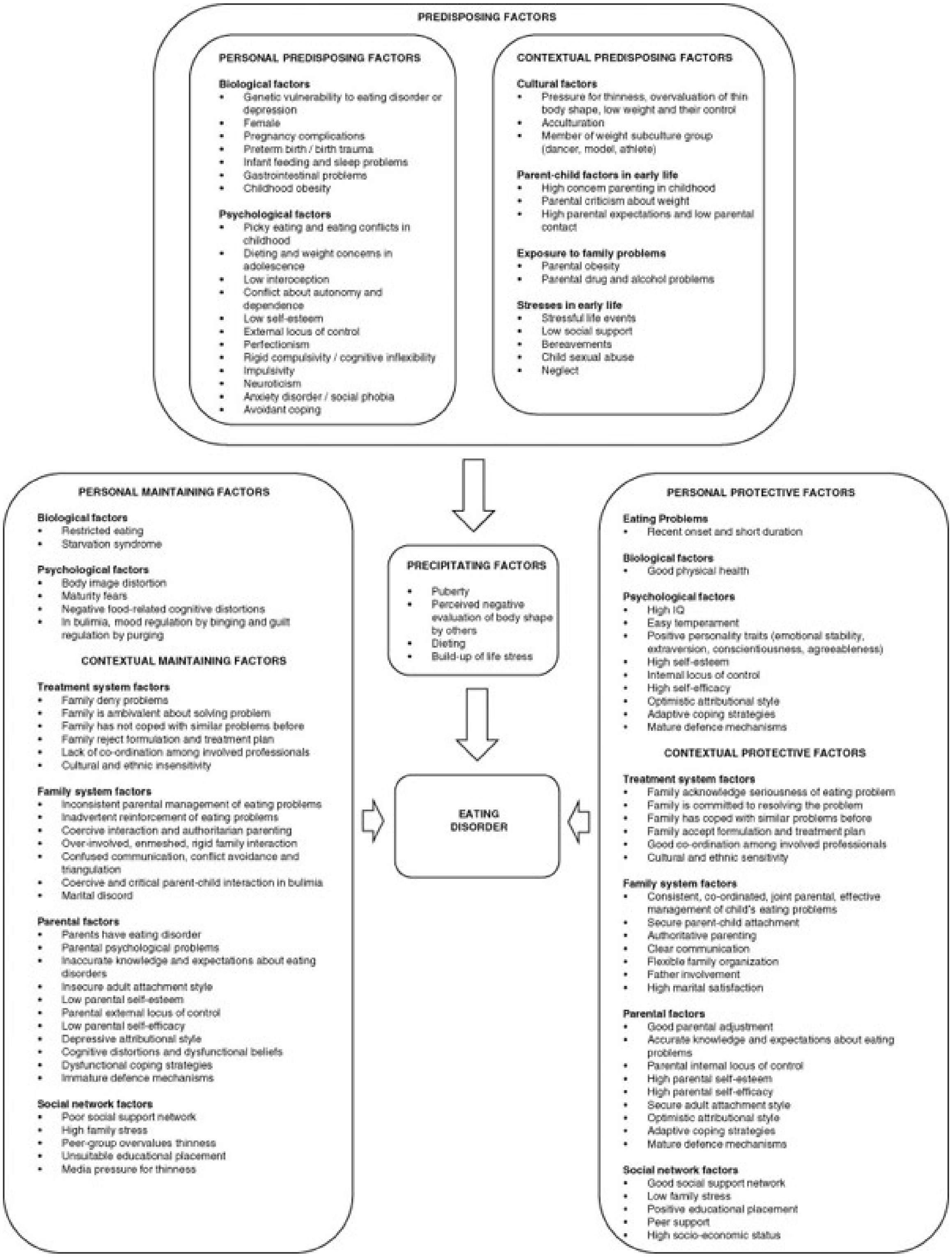


Figure 17.1 Factors to consider in the assessment of eating disorders

Predisposing factors

The principal biological predisposing factor to consider is a genetic predisposition to eating disorders. A family history of anorexia may suggest that such a predisposition is present for restrictive eating. A family history of bulimia, obesity or mood disorders, or drug or alcohol problems may suggest the broader genetic predisposition to bulimia and these related disorders is present. Young females who have a history of pregnancy complications, pre-term birth or birth trauma, infant feeding and sleep problems, gastrointestinal problems and childhood obesity are at particular risk for developing adolescent eating disorders. Food-related psychological characteristics that may predispose a young person to developing an eating disorder include a childhood history of picky eating and conflict with parents about food, dieting and weight concerns in adolescence, and low interoception. With low interoception the young person has difficulty interpreting internal gastrointestinal and emotional stimuli. They find it challenging to detect whether they are hungry or not, and also whether they are, for example, sad or bored, or frightened or excited. A history of picky eating and dieting may be associated with low shape- and weight-related self-esteem, bodily shame, and disgust about food-related bodily stimuli. Relatively enduring broad personal psychological characteristics that may predispose a young person to developing an eating disorder include a conflict about autonomy and dependence, low self-esteem, an external locus of control, perfectionistic strivings, rigid compulsivity (for anorexia), impulsivity (for bulimia), neuroticism, a history of anxiety disorders (especially social phobia) and avoidant coping. Cultural pressures for thinness and dieting along with easy access to food are important predisposing psychosocial factors for eating disorders. So too is acculturation for ethnic minority groups settling in a westernized culture. The pressure to fit into Western culture may lead to extreme dieting and this may culminate in the development of an eating disorder. Young people who are dancers, models and athletes are at risk of developing eating disorders because they are members of peer groups with strong norms and expectations about body shape. Predisposing factors associated with the quality of the parent–child relationships include high-concern parenting, where parents are continually anxious about the child’s well-being, parental criticism about the young person’s weight in adolescence, and high parental expectations coupled with low parental contact and availability. Other historical psychosocial predisposing factors include growing up in a family where parents have obesity, drug or alcohol problems and where children are exposed to high levels of life stress with little social support. Particular early life stresses that place young people at risk of developing eating disorders include bereavements, child sexual abuse and neglect.

Precipitating factors

The onset of an eating disorder is usually precipitated by a build-up of stress in a context where the young person is engaging in restrictive dieting in response to a perception that others are negatively evaluating their weight and body shape. Typically the build-up of life stress occurs at the transition from childhood to adolescence or at the transition from adolescence to adulthood. Stresses may include pressures that impinge directly on the young person such as academic challenges or exam failure; difficulties with peers such as teasing, bullying or rejection; perceived criticism of body shape or weight by peers; and personal illness, injury or bereavement. Stresses which effect the young person indirectly by impinging on parents and siblings may precipitate eating disorders if they are construed by young people as placing stressful demands upon them. These include family bereavements that are deeply felt by parents or siblings, parental illness or injury, and changes in the household composition that are experienced as particularly demanding by parents or siblings such as the transition of younger siblings from being at home to being in school, or the transition of older siblings from living at home to living away from home.

Maintaining factors

Once an episode of anorexia or bulimia has begun it may be maintained by both personal and contextual factors. At a biological level anorexia may be maintained by the starvation syndrome. That is, delayed gastric emptying and starvation-related neuroendocrine changes may compromise the youngster's ability to accurately perceive hunger and satiety signals; heighten their preoccupation with food; exacerbate their cognitive distortions about food-related issues, or indeed any significant personal issues; and accentuate their pre-morbid rigid compulsivity. At a psychological level, a distorted body image may also maintain abnormal patterns of eating in both anorexia and bulimia, since the young person will strive to reduce perceived body size rather than actual body size. In anorexia the sense of mastery and 'feeling special' that arises from extreme dietary restraint may maintain restrictive eating. Restrained eating may be reinforced in anorexia by feedback which occurs during frequent weighing and checking body parts. In bulimia, bingeing may be reinforced by the way it alleviates negative mood states and vomiting may be reinforced by inaccurate beliefs that it prevents weight gain and by the way it may alleviate guilt for bingeing. Maturity fears, expressed as concerns about the demands of adolescence and adulthood and separation from parents, may also maintain eating disorders. In young adolescents anorexia delays physical maturation. It allows young girls to stop menstruating and retain body shape that approximates that of a pre-adolescent.

Parents and children become involved in a range of interaction patterns centring on food preparation and eating that maintain abnormal eating habits. With anorexia these patterns ultimately involve inconsistent parental management of young people's eating problems and inadvertent reinforcement of problematic eating behaviours. Often these family behaviour patterns reflect an accentuation of the family's normal style of interaction. Families that value closeness may find that the experience of coping with a chronic eating disorder leads to entrenched enmeshment which may lead the young person to attempt to define their autonomy and separateness through controlling food intake. Families in which routines are valued may become extremely rigid, so that parents have difficulty breaking out of repetitive patterns, such as ineffective gentle cajoling at mealtimes, that maintain eating problems. Families that tend to ignore conflict about minor issues may deal with eating disorders by engaging in extreme conflict avoidance through denial of the existence or severity of the problem. Periodically this process of denial may give way to bouts of extreme criticism, especially in cases of bulimia, which undermine the child's self-esteem and self-efficacy. Families in which generational boundaries are not clearly drawn may triangulate youngsters with eating disorders into parental conflicts which are overtly denied. So youngsters may find that their abnormal eating pattern is opposed by one parent and supported by the other parent, and this conflict about child management may be part of a wider pattern of inter-parental disagreement or marital discord. However, the entire process of triangulation may not be openly acknowledged and discussed, so parents are unable to jointly develop a plan for helping children to develop normal eating patterns. Families where communication is commonly a little unclear may develop extremely confused communication patterns when an adolescent develops an eating disorder. All of these interactional patterns are more likely to maintain abnormal eating habits in food-oriented family cultures, where food preparation and eating meals are used to symbolize affection or power. In such family cultures preparing a meal may symbolically mean 'I care about you and/or control you,' and refusing to eat may symbolize a rejection of parental affection or control. With bulimia, well-intentioned parental expectations that children perform well and appear attractive so that they get on well in society may give rise to excessive parent–child criticism when adolescents fail to achieve at school or become overweight. The negative affect that young people experience in response to this may underpin the secretive cycle of bingeing and purging that characterizes bulimia.

Such patterns of parenting and family organization may be partially maintained by parents' personal experience of similar eating disorders or psychological difficulties. Where parents have insecure adult attachment styles, low self-esteem, low self-efficacy, an external locus of control, cognitive distortions, immature defences and poor coping strategies, their resourcefulness in managing their children's difficulties may be compromised. Parents may also become involved in problem-maintaining interactions with their children if they have inaccurate knowledge and expectations about the role of psychological factors in the genesis and maintenance of and recovery from eating disorders.

Eating disorders may also be maintained by high levels of stress, limited support and social disadvantage within the family's wider social system, since these features may deplete parents' and children's personal resources for dealing constructively with eating problems. Within the adolescent's ecological context both peer group pressure and media pressure for thinness may maintain an abnormal pattern of eating. Educational placements which are poorly resourced and where teaching staff have little time to devote to home–school liaison meetings may also maintain eating problems.

Within the treatment team and multi-agency system, a lack of co-ordination and clear communication among involved professionals particularly family physicians, paediatricians, nurses, nutritionists, psychologists and other staff may maintain an adolescent's eating problems. It is not unusual for various members of the professional network to offer conflicting opinions and advice on the nature and management of eating disorders to adolescents and their families. These may range from viewing the child as physically ill and deserving routine nursing for the treatment of starvation to seeing the child as healthy but disobedient and deserving punitive management. Where co-operation problems between families and treatment teams develop, and families deny the existence of the problems, the validity of the diagnosis and formulation or the appropriateness of the treatment programme, then the child's difficulties may persist. Treatment systems that are not sensitive to the cultural and ethnic beliefs and values of the youngster's family system may maintain eating disorders by inhibiting engagement or promoting dropout from treatment and preventing the development of a good working alliance between the treatment team, the youngster and his or her family. Parents' lack of experience in dealing with eating problems in the past is a further factor that may compromise their capacity to work co-operatively with the treatment team and so may contribute to the maintenance of the child's difficulties.

Protective factors

The probability that a treatment programme will be effective is influenced by a variety of personal and contextual protective factors. It is important that these be assessed and included in the later formulation, since it is protective factors that usually serve as the foundation for therapeutic change. Young people with an eating disorder of recent onset and short duration have a better prognosis than those with more entrenched abnormal eating patterns. A high IQ, an easy temperament, positive personality traits (emotional stability, extraversion, conscientiousness, agreeableness), high self-esteem, an internal locus of control, high self-efficacy and an optimistic attributional style are all important personal protective factors. Other important personal protective factors include mature defence mechanisms and functional coping strategies, particularly good problem-solving skills and a capacity to make and maintain friendships.

Within the family, the most important protective factor is the openness of parents to developing a consistent, co-ordinated, joint parental, effective approach to the management of young person's eating problems. Secure parent–child attachment and authoritative parenting are other important family-based protective factors, particularly if they occur within the context of a flexible family structure in which there is clear communication and high marital satisfaction and both parents share the day-to-day tasks of childcare.

Good parental adjustment is also a protective factor. Where parents have an internal locus of control, high self-efficacy, high self-esteem, internal working models for secure attachments, an optimistic attributional style, mature defences and functional coping strategies they are better resourced to manage their children's difficulties constructively. Accurate knowledge and realistic expectations about eating disorders and their management is also a protective factor.

Within the broader social network, high levels of support, low levels of stress and membership of a high socio-economic group are all protective factors for young people with eating disorders. Where families are embedded in social networks and peer groups that provide a high level of support and place few stressful demands on family members, then it is less likely that parents' and children's resources for dealing with eating problems will become depleted. A well-resourced educational placement may also be viewed as a protective factor. Educational placements where teachers have sufficient time and flexibility to attend home–school liaison meetings if invited to do so contribute to positive outcomes for children with eating disorders.

Within the treatment system, co-operative working relationships between the treatment team and the family and good co-ordination of multi-professional input are protective factors. Treatment systems that are sensitive to the cultural and ethnic beliefs and values of the youngster's family are more likely help families engage with and remain in treatment and foster the development of a good working alliance. Families are more likely to benefit from treatment when they accept the formulation of the problem given by the treatment team and are committed to working with the team to resolve it. Where families have successfully faced similar problems before they are more likely to benefit from treatment, and in this sense previous experience with similar problems is a protective factor.

Formulation

On the basis of the assessment a preliminary formulation may be drawn up. This should link predisposing, precipitating and maintaining factors to the abnormal eating pattern and specify protective factors that may be drawn on during treatment.

Treatment

Currently the treatment of choice for anorexia and bulimia in young adolescents is family therapy (Bulik et al., 2012; Hay, 2013; Le Grange & Lock, 2007; Lock & Le Grange, 2012) and for bulimia in older adolescents is cognitive-behavioural therapy (Campbell & Schmidt, 2011; Fairburn, 2008; Ghaderi, 2012; Gowers & Green, 2009; Hay, 2013; Stewart, 2005; Watkins, 2013). A description of each will be given following procedures outlined in relevant treatment manuals.

Family therapy for eating disorders in young adolescents

The treatment of young adolescents with anorexia should begin with inpatient care to address physical complications of starvation in severe cases with high medical risk (Lask & Bryant-Waugh, 2013). This should be followed up with outpatient family therapy. In lower-risk cases, treatment may begin with outpatient family therapy.

Inpatient management of anorexia

Most children and young teenagers can be treated effectively in outpatient family-based treatment. Where an adolescent's medical condition is dangerous enough to warrant inpatient treatment, this should be offered in conjunction with family-based treatment, which is described in some detail later. The goals of inpatient treatment are managing the immediate threat to the child's physical or mental health, weight restoration and providing a context for the first stage of family-based treatment.

Once the paediatric medical team are satisfied that immediate threats to the adolescent's physical health have been managed, inpatient weight restoration may begin. The psychologist should work closely with the paediatric nursing staff and arrange a behavioural weight gain programme (Lask & Bryant-Waugh, 2013). The details of the patient's diet may be agreed on in conjunction with the nursing staff and the dietician. The patient is confined to bed with no privileges except for a brief visit from the parents each day. An overall target weight may be set at about the 40th percentile for the adolescent's height and age or a body mass index of about 20–22 kg/m^2. Alternatively a target range may be set, for example, obtaining a weight that is 95–100% of the expected weight for height. In addition, intermediate weekly weight gain targets of about 1–1.5 kg may be set. (In contrast, for outpatients, a weekly weight gain target of 0.5–1.5 kg is usually set.) As these intermediate targets are met, the adolescent may select privileges and freedoms from a list agreed on during the first days of hospitalization. When the patient's weight falls within the target range and remains stable for 3 days she may be discharged home.

Daily or thrice-weekly weighing routines may be established on the ward. Nursing staff without specialist training may require considerable support in dealing with youngsters with eating disorders. Helping them to avoid the pitfalls of being either too punitive or too protective is essential since such attitudes may simply replicate family responses to the condition and further maintain the child's eating problems. Nursing staff need to be briefed on weight targets, mealtime routines, specific privileges that have been earned and specific limits that must be kept. For mealtime routines, at the outset, the youngster may be given a set time period, such as an hour, within which to consume a meal, otherwise finishing the meal may be supervised by a nurse. In supervising eating, nurses sit with the youngster and sympathetically but firmly insist that they eat, in some instances cutting their food for them and feeding them (as if they were truculent pre-school children). Nurses need to be briefed on setting limits and constantly supervising patients who hide food, vomit, or exercise excessively. The over-riding position taken by the nursing staff is one of supporting the adolescent in her fight against the disorder.

Weekly family-based treatment sessions are held while the patient is hospitalized following the guidelines set out later. Where inpatient weight restoration spans a number of weeks, arrangements may be made for schoolwork to be brought to the hospital or for hospital-based tuition.

Outpatient family therapy for anorexia and bulimia

In the Maudsley group's evidence-based, manualized outpatient family therapy programme for anorexia nervosa and bulimia for young adolescents a distinction is made between three distinct phases: (1) engagement and weight restoration; (2) transitioning control of eating back to the adolescent; and (3) addressing adolescent issues and therapy termination (Le Grange & Lock, 2007; Lock & Le Grange, 2012).

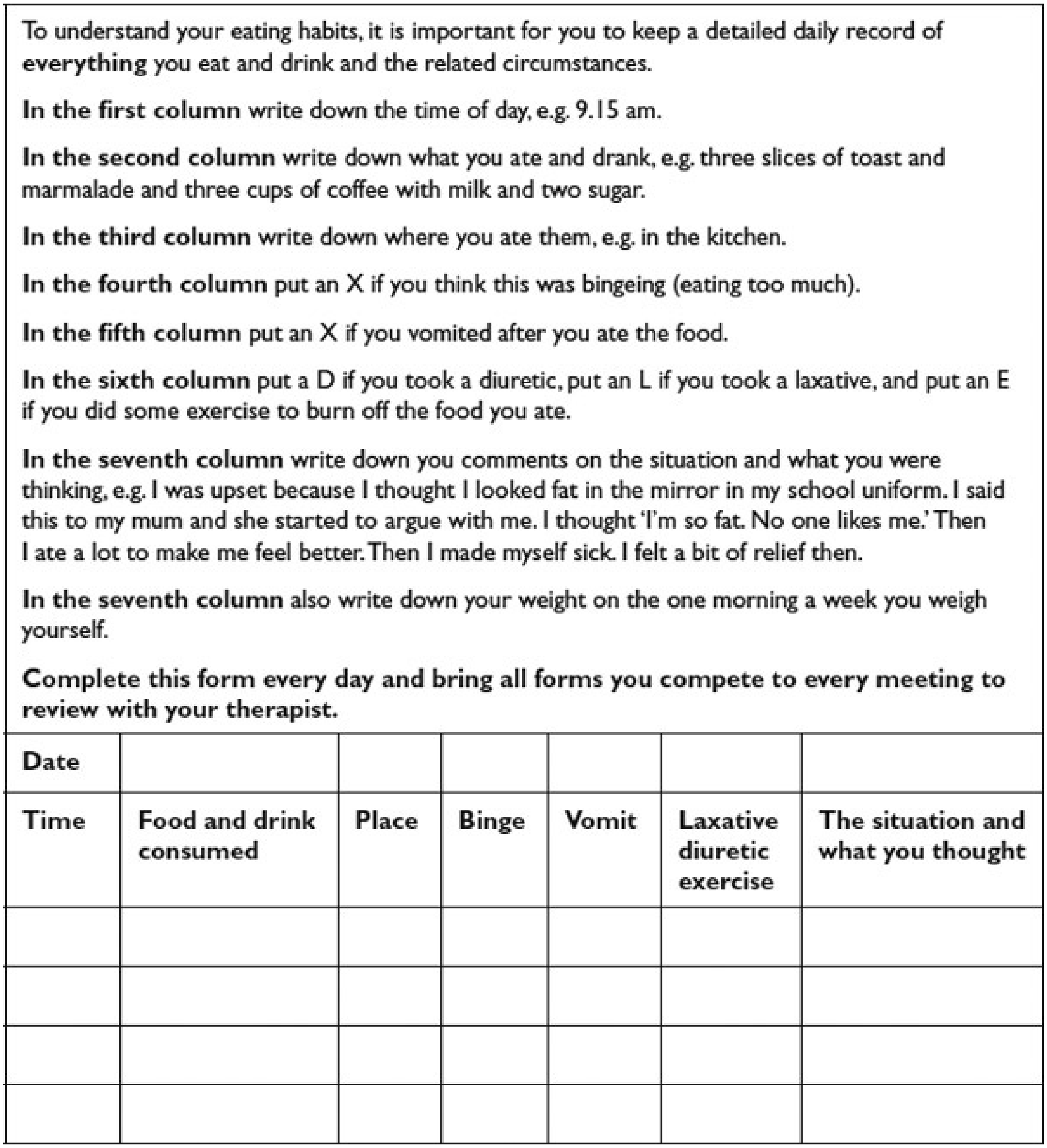
Phase I. Engagement and weight restoration

The aim of the first phase is to establish a strong positive working alliance with all family members and to maximize their motivation to co-operate with refeeding the young person if they have anorexia or normalizing their eating pattern if they have bulimia. This is done by raising parents' anxiety about the seriousness of the child's condition and highlighting that co-operation with therapy, in which the parents will have a central and authoritative role, will lead to recovery.

Before the first session, usually in a phone conversation, the psychologist communicates that there is a crisis because there is a mortality rate of 6% and a morbidity rate of 30% for patients with anorexia and many bulimic youngsters become anorexic. The authority of the parents is supported by acknowledging that they want the best for their child and so must use their authority to insist on all household members attending family sessions. With bulimic patients, the dangers of the fasting-bingeing-purging cycle are highlighted. Of these the most important are the potentially fatal arrhythmias which may occur as a result of an electrolyte imbalance. Other dangers include gastrointestinal bleeding and erosion of the teeth.

The patient is weighed privately outside the family-based treatment room just before the first and subsequent sessions, and the body mass index or height and weight charts brought into the session as evidence of the severity of the child's condition. With bulimic patients, the young person is shown how to keep an ongoing log of bingeing and purging episodes, using the self-monitoring form in Figure 17.2. To underline the severity of the bulimia, this form is brought into family sessions. In the first session the idea must be conveyed that anorexia and bulimia are extremely dangerous conditions, and that the psychologist is concerned for the patients and the parents and will go the extra mile to help them bring the youngster back to health. The loyalty and concern of the family shown by their attendance at the interview and their willingness to be involved in treatment may be acknowledged. Each family member may be asked their understanding of the problem, and be invited to give an account of all that has been tried by the family and other professionals to solve it and the way in which all previous attempted solutions have been unsuccessful. If patients have received inpatient care, they probably gained weight but relapsed as soon as they returned home. If therapy is beginning just after an inpatient weight gain programme, this pattern of instant relapse should be predicted, since it happens in almost all cases. This process should be used to establish a strong alliance with all family members by empathizing with their despondency about the problem and by modelling an uncritical and supportive attitude to the patient.

At the same time the psychologist should attempt to raise the level of concern and anxiety experienced by the parents and by the patient about the problem by highlighting the failure of other professionals to help the youngster to maintain a safe weight or normal eating pattern. The climax of the first session occurs when the psychologist says that it will be down to the whole family, who know and understand the patient best, to use their loyalty and resourcefulness to help the patient take control of her symptomatic behaviour and begin to eat, gain weight, stop bingeing and vomiting and avoid excessive exercise. The family's protests should be met with a statement that all other alternatives have failed or are going to fail and that in 90% of cases, families who work together with a psychologist over 10–20 sessions spread across 6–12 months (depending on the severity of the condition) find a way to empower the child to restore her health, but the solution resides within the family. In cases of anorexia, the parents are asked to bring a picnic lunch to the next session with as much food for the patient as they think the patient should eat given that the patient is suffering from starvation.



To understand your eating habits, it is important for you to keep a detailed daily record of **everything** you eat and drink and the related circumstances.

In the first column write down the time of day, e.g. 9.15 am.

In the second column write down what you ate and drank, e.g. three slices of toast and marmalade and three cups of coffee with milk and two sugar.

In the third column write down where you ate them, e.g. in the kitchen.

In the fourth column put an X if you think this was bingeing (eating too much).

In the fifth column put an X if you vomited after you ate the food.

In the sixth column put a D if you took a diuretic, put an L if you took a laxative, and put an E if you did some exercise to burn off the food you ate.

In the seventh column write down you comments on the situation and what you were thinking, e.g. I was upset because I thought I looked fat in the mirror in my school uniform. I said this to my mum and she started to argue with me. I thought 'I'm so fat. No one likes me.' Then I ate a lot to make me feel better. Then I made myself sick. I felt a bit of relief then.

In the seventh column also write down your weight on the one morning a week you weigh yourself.

Complete this form every day and bring all forms you compete to every meeting to review with your therapist.

Date						
Time	**Food and drink consumed**	**Place**	**Binge**	**Vomit**	**Laxative diuretic exercise**	**The situation and what you thought**

Figure 17.2 Self-monitoring form for bulimia

The finding that parental criticism of teenagers with eating disorders is associated with dropout deserves special attention (Szmukler & Dare, 1991). When such criticism occurs (and it is more common in bulimic and chronic cases), it may reflect parental guilt. That is, parents may endure their child's self-starvation or bulimic behaviour for extended periods and show great tolerance and sympathy, but when their experience of guilt reaches a critical level, they may flip over into criticism. Such criticisms typically convey the message that 'I as parent have tried everything to help you, so it's not my fault you are starving, it's your own.' For young people with eating disorders, this parental blaming process may lead to self-blame, hopelessness and further entrench the low sense of self-esteem and self-efficacy.

The engagement phase described here is specifically designed to neutralize parental guilt by highlighting that the parents are not to blame for their child's condition but that they have a central role to play in helping their child recover. By neutralizing guilt it is expected that they will not flip into criticism and exacerbate their youngster's low self-esteem and self-efficacy. If parents ask did they cause their child's eating disorder, the answer is that we can never be sure, but parents may contribute to their child's recovery. Family-based treatment is not about blaming families for causing problems but a way of facilitating families to use their wisdom and loyalty to help youngsters recover. The only way in which a family can contribute to a child's eating disorders is by inadvertently maintaining the youngster's eating habits through trying and failing to help them eat. The solution to this is to use family-based treatment as a way of breaking these patterns of interaction.

In this treatment, parents, siblings and the young people with the eating disorders are invited to join forces against the eating disorder. Externalizing the eating disorder and conceptualizing it as distinct from the young person is a critical aspect of engagement. The psychologist may say that the young person has been 'overtaken' or 'possessed' by the eating disorder and feel powerless to control it. Venn diagrams of two circles with a high degree of overlap may be used to visually illustrate the extent to which the young person has been overtaken by the eating disorder. The psychologist may emphasize that the young person is being dominated by anorexia or bulimia and their life is being threated by the eating disorder. In family treatment the whole family, including the young person with the eating disorder, join forces against the disorder. The treatment does not aim to empower parents to control their child or 'break their spirit'. It aims to help them to save the young person's life that the eating disorder has taken over. Initially it is difficult for young people to see themselves as separate from anorexia because the experience of anorexia is egosyntonic. They are proud of their restrained eating and thinness. In contrast, young people with bulimia find it easy to see themselves as separate from bulimia, because bulimia is egodystonic. They are ashamed of their bingeing and vomiting.

After the engagement process, the family is helped to create a culture within which the adolescent is expected to follow a normal eating pattern. In early-onset, short-duration anorexia, most families have developed a series of symptom-maintaining patterns of interaction which involve the parents having difficulty working as a united, goal-directed team in insisting that the child eat. They have also typically developed a belief that they are powerless to help their youngster relearn how to eat normally and retain a normal weight. Often this pattern is associated with strongly held family beliefs and myths about parents roles, feeding, managing conflict and power. It may also be associated with marital discord or parental mood problems. In this part of therapy, which begins with the picnic lunch, the parents' problem-maintaining interaction patterns and beliefs are challenged.

At the outset of the picnic lunch session, the psychologist acknowledges the whole family's commitment to resolving the serious problem. The failure of professionals to offer a long-term solution is reiterated as is the dire prognosis for the condition. It is pointed out that this is a highly stressful session and may take a few hours, and that the session ends when the patient eats one more mouthful than she wants to under her parents' guidance. This is a symbolic statement that a family culture has been created within which the child is expected to eat.

The parents may ask that conflict be avoided and suggest that family relationships or self-esteem be improved and that this may lead to the child's recovery. The psychologist may say that this has been tried in other cases this and that it actually makes things worse, since much effort is expended in pursuing an inappropriate treatment that lead to further failure.

The psychologist then asks the parents to sit one on each side of the daughter and make sure she eats a good meal. The psychologist may urge them to insist that the daughter eat in the same way that they would insist that a toddler would take her medicine if she were ill. The parents will engage in their routine patterns of breaking their coalition to avoid conflict with the girl and fall into helplessness. But the psychologist must continue to urge them to feed the girl, and help her to fight against the eating disorder, lest she die.

It is important for the psychologist concurrently to support the young person and acknowledge that she too is fighting anorexia, and that this is very difficult because anorexia and the starvation syndrome have taken hold of her, taken over her body and taken over her life. She has a right to independence and freedom. Her parents are not trying to control her but to save her life by controlling the eating disorder that has taken over her life.

Eventually, with urging and coaching, the parents join forces with each other and that part of their child that has not been completely overtaken by the eating disorder and helps the child eat one more mouthful than the eating disorder wants to permit. The psychologist acknowledges that the family is strong and may have turned the corner on the long difficult road to helping the young person recover. The role of siblings throughout this ordeal is to support the young person (as distinct from the eating disorder) and not to interfere with the parents' joint concerted control of the symptoms of the eating disorder.

With separated parents, both parents and their partners in separate sessions may require training in managing the eating disorder symptoms. With single parents, the help of a grandparent or other family member may be co-opted to help control symptoms.

During the eight sessions that follow the family lunch session, the focus is on supporting the parents in refeeding the child so that her weight reaches a target weight of about 90% of the expected weight for height, age and gender at a rate of 0.5–1.5 kg per week. Decisions are made by the parents about a balanced diet and menus for four meals a day containing 1,500–3000 calories, depending upon the child's stage of recovery.

The parents are given absolute control over this, although if they require help, an appointment can be made for them to consult with a dietician. During the weight gain process, the young person is required to stay at home from school and focus all their efforts, with support from their parents, on weight restoration. The parents are encouraged to create a rotational system so that one of them is at home supervising the young person throughout the weight gain programme. The patient is confined to the house or, if weight gain is slow, the patient may be confined to bed. Increasing levels of freedom may be given to adolescents as they show steady weight gain.

With bulimic young people, during phase I of family-based treatment young people are invited to explain to their parents their inner conflicts about eating particular forbidden foods, their wish to fast, the factors and negative mood states that trigger bingeing, the fears that trigger purging, and the guilt that follows this. Parents are invited to help the young person to take control of symptoms of bingeing and purging. This may be achieved by externalizing the bulimia and inviting the parents and young person to join forces against it. Compared with anorexia, it is easier to successfully help families externalize bulimia, encourage the adolescent and parents to see the bulimia as separate from the adolescent, and join forces against it. This because bulimic symptoms are seen by adolescents as undesirable, whereas anorexic symptoms are seen as desirable. The aim during phase I of family-based treatment of bulimia is to help the young person resume a normal eating pattern and stop dieting, bingeing and purging. How this is to be achieved is negotiated within the treatment sessions. Useful strategies include parents supervising the adolescent eating all meals or snacks; making food unavailable between meals by locking the kitchen; limiting the adolescent's access to money to buy food or laxatives; and arranging parental supervision of the child for 2 hours after each meal to prevent purging; and scheduling normal meals that include 'forbidden' foods. That is, particular foods which the young person believes bulimia is forbidding them to eat. Throughout the treatment young people with bulimia are invited to keep a log of all episodes of bingeing and purging, which is reviewed at the start of each session. A critical part of the therapy is empowering the parents to negotiate a plan for controlling the symptoms without triangulating the child into their discussion and then following through on this plan in a co-operative way. The psychologist must balance support for the parents in this co-operative effort while at the same time supporting the young person who may feel ashamed of her bingeing and purging and powerless to change the tyranny of the binge–purge cycle. As regular eating habits develop, the young person is coached in recognizing the triggers that precipitate the binge–purge cycle and helped to develop autonomous strategies for disrupting this cycle, so that eventually self-control may replace parental control of the binge–purge cycle. Self-help manuals for young people and their parents, listed at the end of this chapter, may be a useful adjunct to therapy at this point.

Phase II. Transitioning control of eating back to the adolescent

In the second phase of treatment, an agreement is reached between the psychologist and the family that as the young person reaches a target weight or target weight range (about 90% of expected weight for height, age and gender) or demonstrates an ability to avoid dieting, bingeing and purging, parental control of feeding will diminish and eventually stop. The transition to phase II also requires the young person to be able to eat without parental cajoling and to have shown steady weight gain. This phase is often marked by a very noticeable change in the mood of the family during family therapy sessions. By the end of phase II adolescents become fully responsible for their own eating and weight. In early sessions of phase II there is discussion about how parents can support the adolescent to develop autonomous control of their eating and weight, and the pacing of moving from parental control to autonomous adolescent control of eating. There is also discussion of adolescent eating in multiple contexts including the home, at school, with peers, and when dating with romantic partners.

Eating disorders constitute an interruption of normal adolescent development. In phase I of family-based treatment, normal adolescent physical development is resumed with the normalization of eating, weight and other bodily functions such as menstruation. During phase II, normal adolescent social development is resumed. The family is invited to support the adolescent in returning to school, socializing with friends and dating. Family members are invited to explore ways in which adolescents may express their wish for independence, autonomy and privacy within the family and to negotiate age-appropriate freedoms and responsibilities. Issues such as curfew times, homework, pocket-money, locks on bedroom doors and so forth dominate the *content* of the sessions. The *process* of these sessions is concerned with helping the parents and teenager communicate their wishes clearly, to listen to each other without mind-reading or interruption and learn how to use problem-solving skills to resolve conflicts of interest. Communication and problem-solving training, as described in Tables 4.2 and 4.3 in Chapter 4 may occur during this phase of treatment. Sessions are scheduled less frequently, for example, for every third or fourth week. Typically, the family reports that the teenager is showing greater autonomy and independence and spends more time with peers and less time engaged in family activities. Sessions during Phase II are schedules at 2–3 weekly intervals, in comparison to phase I where they are scheduled weekly.

Phase III. Adolescent issues and termination of treatment

In the disengagement phase, the psychologist helps the family review progress, facilitate the family's management of normal adolescent development, and make relapse prevention plans. This phase begins when the adolescent reaches 95–100% of normal body weight; efforts at self-starvation or dieting, bingeing and purging have abated; and the adolescent has achieved autonomous control of their eating and weight. Adolescence may be conceptualized as involving three stages, each with its own challenges. The first stage is marked by puberty and related physical changes. Girls tend to worry about developing too early and being overweight or too tall. Boys, in contrast worry about developing too late and not being big and manly enough. Both worry about not being attractive. Coming to terms with body shape is a particular challenge for adolescents recovering from eating disorders. In the second stage of adolescence the main task is to make and maintain peer friendships and romantic relationships. Adolescents recovering from eating disorders have usually lost ground in this area and require support in catching up with this task. During phase II and III of family-based treatment parents may be invited to 'let go' of their recovering adolescents and support them in developing peer and romantic relationships. In the third stage of adolescence there is a focus on developing vocational, economic, geographic and emotional independence by going to college, working, moving away from home and forming long-term romantic relationships. Often adolescents recovering from eating disorders find this transition challenging because of their emotional and economic dependence on their parents and concerns about their attractiveness as romantic partners. In phase III parents may be encouraged to help their maturing adolescents to manage all these challenges.

In phase III of family-based treatment of eating disorders reviewing therapeutic progress, and the way in which early-onset eating disorders may coincide with the life-cycle transition from childhood to adolescence is discussed. This may serve as a starting point for considering how the family will manage future situations where there is a risk of relapse particularly during the next lifecycle transition, which involves leaving home. The ways in which the parents spend time together as a couple separate from the children may also be explored. Often in families of young people with eating disorders there is a belief that the couple's raison d'être is to offer parental care to the children and that without children to care for, the parents' lives would be meaningless. In the disengagement phase, this issue must be raised. However, it is not necessary to resolve it. It is sufficient for the children to know that this is an issue that the parents recognize and are well capable of managing. The hallmark of phase III of treatment is that parent–child relationships are no longer exclusively focused on the symptoms of eating disorders.

Cognitive-behavioural treatment of bulimia

For adolescents, manualized cognitive-behavioural therapy (CBT), typically conducted over 10–20 sessions, aims to disrupt the binge–purge cycle and modify the belief systems which underpin this cycle (Campbell & Schmidt, 2011; Fairburn, 2008; Ghaderi et al., 2012; Gowers & Green, 2009; Hay, 2013; Stewart, 2005; Watkins, 2013). In the first stage, the young person and parents are helped to understand the cognitive-behavioural view of the maintenance of bulimia and the implications of this for resolving the eating problems. Behavioural techniques are employed to help the young person begin to replace the binge eating pattern with a more normal eating pattern. In the second stage, attempts are made to establish healthy eating habits with a particular focus on eliminating dieting. It is during this stage that youngsters learn to challenge the beliefs and values concerning shape, weight and self-worth that maintain their eating disorder. Maintenance of therapeutic gains and relapse prevention are the focus of the third stage of therapy.

Stage I. Rationale for CBT treatment of bulimia and addressing binge eating

The two main goals of the first stage are to establish the rationale for a CBT approach to treatment and to replace binge eating with a regular eating pattern. The psychologist initially develops therapeutic relationships with the youngster and parents through the process of history taking, presenting a CBT formulation of the youngster's binge–purge cycle, and offering a contract for treatment. This stage spans about eight weekly sessions, some of which may be conducted conjointly with parents and some with the youngster alone. With history taking, in addition to the usual areas outlined in Chapter 4, detailed information is gathered on the youngster's attitudes to shape and weight (including the importance attached to shape and weight, desired weight, and cognitive, emotional and behavioural reactions to comments about shape and weight); eating habits (including daily eating pattern, dieting and bingeing); weight control methods (including self-induced vomiting, use of laxatives, purgatives and diuretics and exercise); and current medical status, particularly the status of the youngster's electrolytes.

Rationale and formulation. In presenting the formulation, Figure 17.1 is used. Usually binge eating is presented as the central concern. The youngster wishes to stop bingeing but feels out of control. With this in mind, certain key points should be made in presenting the formulation. First, dieting maintains binge eating because it leads to feelings of intense hunger and negative affect. Second, this negative affect is intensified in specific trigger situations. Young people interpret these trigger situations (such as noticing that they are not slim) in a negative way (due to perfectionism, black-and-white thinking, or other cognitive distortions) and these negative appraisals intensify negative mood states. For example, they may think, 'I want to be slim, I never will be, I feel terrible, eating is the only thing that will comfort me.' Binge eating is a short-term way of improving the negative mood states associated with these negative automatic thoughts. Third, vomiting and purging also maintain binge eating because youngsters hold the mistaken belief that these are effective methods for calorie control, and the act of vomiting brings relief because of these erroneous beliefs. For example, a youngster may hold the following beliefs: 'I've stuffed myself and I will get very fat unless I get this food out of my system now. I must be perfectly thin or I'm no good. I feel completely guilty for having eaten so much and having no will power, so I'll vomit. That's a relief, now that I've vomited. I will diet from now on.' Fourth, the belief that high self-worth will arise from a slim shape and low weight promotes extreme dieting, partly because youngsters adopt a perfectionistic thinking style and tend to think in black-and-white terms. For example, youngsters may hold beliefs such as, 'I must be the perfect shape otherwise no one will like me' or 'either I'm thin or I'm fat, good or bad, there is no middle ground.' Fifth, over-concern about shape and weight is linked to long-standing negative self-evaluation. This may include beliefs that the youngster has little intrinsic worth as a person and has very little power to change this except through maintaining a slim shape and low weight. While these five general issues should be addressed in presenting the formulation, it should be customized in each case to the unique circumstances and beliefs of the youngster in question. It is useful to draw the formulation, as given in Figure 17.1, for the youngster and parents working from the bottom of the diagram (the bingeing and vomiting cycle) upwards. The formulation may be revisited regularly throughout the process of treatment.

When youngsters and parents understand this CBT formulation they may be offered a contract for treatment. The youngster and parent are informed that the treatment will span about 20 sessions; that it is likely to be effective in about 2 out of 3 cases and so is not a guaranteed cure; that the youngster and parents will be invited to compete tasks between sessions; and that a strong commitment to therapy and to following through on therapeutic tasks is essential for success. The treatment tasks aim to break the cycles contained in the formulation model in Figure 17.1. Youngsters and their parents may be told that initially treatment will focus on their central concerns, the behaviour pattern of bingeing and vomiting at the bottom on Figure 17.1, but for treatment to be effective they must later focus on dieting. In particular they must address youngsters' beliefs about themselves, their weight, and their shape that underpin chronic dieting, since chronic dieting sets the stage for bingeing.

Self-monitoring. The first treatment task is to complete self-monitoring sheets in which youngsters record exactly what they eat each day, the time when it is eaten, the place, whether the youngster considered the episode of eating to be a binge, whether it was followed by vomiting or laxative use, and the overall circumstances and context under which the eating occurred. A self-monitoring form is presented in Figure 17.2. The second and all subsequent sessions begin with a review of self-monitoring forms. In the final column of the self-monitoring form, youngsters record the situation and their thoughts about it. Throughout treatment by regularly reviewing this material, youngsters may be helped to identify negative automatic thoughts, cognitive distortions, assumptions and core beliefs that underpin their eating disorder.

Weekly weighing. The second task is for the youngster to agree to weekly rather than daily weighing. They should weigh themselves once, and once only, each week throughout treatment on a morning of their choice. Where youngsters are weighing themselves many times each day, this new weighing pattern may be introduced gradually. In this form of treatment, the therapist only weighs the youngster during the initial assessment interview and at the end of treatment, to avoid the therapy becoming over-focused on weight-related issues.

Reading self-help books. The third task is for the youngster and parents to read bulimia self-help books listed at the end of the chapter, a process that should continue throughout treatment. Detailed instructions on understanding eating disorders, completing self-monitoring, and all other CBT tasks are given in these self-help books. With younger teenagers, parents may be invited to supervise CBT tasks. With older teenagers, the tasks may be conducted autonomously.

Psychoeducation. Psychoeducation about bulimia is also covered in the first stage of treatment. This should be given orally and appropriate chapters of self-help books should be given as homework assignments. Youngsters and their parents are informed about how to calculate the body mass index (BMI) and to set a weight goal using BMI tables that does not involve dieting. Psychoeducation also covers the physical consequences of bingeing and vomiting; the ineffectiveness of vomiting, laxative and diuretic use as means of weight control; and the fact that dieting inevitably leads to intense hunger, loss of control and bingeing. The negative consequences of bingeing, vomiting and using purgatives that should be stressed include electrolyte imbalance, salivary gland enlargement (leading to a chubby face), erosion of dental enamel, intermittent oedema, and menstruation irregularities.

Prescribing a regular eating pattern. Youngsters should be given the following advice on eating habits. First, eat three meals per day, and two or three planned snacks, spaced no more than 3 hours apart. Meals should not be followed by vomiting, the use of diuretics, purgatives or intense exercise, and other unplanned eating should be avoided. Where eating habits are severely disturbed, this regular pattern should be introduced gradually. This task aims to both regularize eating habits and show youngsters that the eating pattern does not result in weight gain.

Stimulus control. Stimulus control techniques may be introduced to help youngsters adhere to a regular eating pattern. These include not engaging in other activities (such as watching TV) while eating; savouring their food; confining eating to one place and formalizing the eating process by setting the table and so forth; limiting the supply of food available while eating by putting out the required amount and putting the packet away before the meal starts; practicing leaving food on the plate; throwing away leftovers; keeping as little 'danger food' in the house as possible, such as chocolate; planning shopping lists when not hungry and sticking to them; and avoiding finishing food on plates of other family members. Particularly with younger adolescents, the implementation of these stimulus control techniques should be discussed in detail with parents.

Planning alternatives to bingeing and vomiting. Youngsters may be invited to predict trigger situations where they are at risk of bingeing and vomiting, and to develop lists of alternative behaviours in which they can engage to avoid bingeing and vomiting. Such behaviours may include talking to a parent, phoning a friend, playing a computer game, playing music, taking gentle exercise, or having a bath.

Managing vomiting. To reduce the frequency of vomiting, youngsters may be invited to select meals or snacks which induce a lower urge to vomit, and to carefully plan to engage in distracting activities for an hour following eating to avoid vomiting.

Managing laxative and diuretic use. To reduce the frequency of laxative and diuretic use, the ineffectiveness of these drugs in preventing food absorption should be explained. Then youngsters may be invited to discard their supply of such drugs in one step or a series of gradual steps. Sometimes there is a brief temporary rebound effect after ceasing diuretic use, during which weight increases and youngsters should be warned of this.

Stage II. Reducing dieting, improving problem solving and challenging cognitive distortions

Throughout stage II and III processes begun in stage I are continued. The three main goals of the second stage, which spans about eight weeks, are to reduce dieting, improve problem-solving skills, and challenge beliefs about shape, weight and self-worth that maintain the eating disorder.

Reducing dieting. With bulimia most youngsters practice three types of dieting: (1) abstaining from eating for long periods of time, (2) avoiding specific 'forbidden' foods and (3) restricting the amount of food eaten. Youngsters attempt to follow strict rules about when to eat, which forbidden foods to avoid and how much to eat. Following these rules leads to intense hunger. In stressful trigger situations, this hunger leads to bingeing which is interpreted as evidence for poor-self control and low self-worth rather than unrealistic dietary rules. A central strategy for resolving bulimia, therefore, is reducing or eliminating dieting. In stage I, the prescription of a regular eating pattern of three meals and two snacks a day, with intervals no longer than 3 hours addressed the first type of dieting, that is, avoiding eating for long time periods.

To address the second type of dieting, youngsters may be invited to visit a supermarket, identify and list all the 'forbidden' foods they can see, and then classify these into four categories from the least to the most forbidden. Over the following weeks, the youngster alone or with parents is invited to plan and eat meals or snacks in which these forbidden foods are incorporated in small or normal amounts in to the meals, starting with the least forbidden and working gradually towards the most forbidden foods. These meals or snacks containing forbidden foods should only be planned for low-stress periods when the youngster is likely to experience a high degree of self-control. This gradual and graded introduction of forbidden foods into the youngster's diet should be continued until the youngster no longer feels anxious about eating them. After that, youngsters may return to a narrower diet that may not often include them. In some situations, youngsters may be so anxious about eating certain foods because they fear overeating or vomiting, that desensitization to them should be conducted in the clinic using an exposure and response prevention format. These sessions should be carefully planned. The meal or snack containing the forbidden food is eaten early in the session, and the youngster is helped by the therapist for the remainder of the session to cope with the urges to overeat the forbidden food or to vomit. For youngsters with strong food avoidance, a number of such session may be necessary.

To address the third type of dieting – restrictive dieting – the youngster should be helped to move from a restricted diet to a diet containing 1,500 calories per day. Inspection of self-monitoring sheets will indicate current caloric intake and this information may be used to plan a gradual increase in food consumption. Youngsters may also be invited to eat a more varied diet.

Problem solving. To deal with problematic situations, especially trigger situations that precede bingeing, youngsters may be coached in using systematic problem-solving skills. Invite youngsters to first break big vague problems into many smaller specific problems to be tackled one at a time. Second, define each of these in solvable terms. Third, focus on solving the specific problem at hand, not attacking the person or people involved in the problem, or simply leaving the problem unresolved. Fourth, generate many possible solutions to the problem in hand. Fifth, when all solutions are generated, examine the pros and cons of each, and select the best. Sixth, implement this solution, review progress, and modify the solution if it is not working. Finally, repeat this sequence as often as is necessary to solve the problem and celebrate success. Inspection of self-monitoring forms will usually show that many binge-triggering situations involve difficult interpersonal problems. Through addressing these in therapy sessions, as they arise, youngsters gradually learn systematic problem-solving skills.

Cognitive restructuring. From the formulation in Figure 17.1 it is clear that dieting and the bingeing and vomiting cycle are driven by negative mood states that arise from negative beliefs about shape and weight (such as ‘I’m too big and too heavy’), and negative self-evaluative beliefs (such as ‘I’m not good enough’ or ‘I’ve no self-control’). In specific triggering situations, these beliefs give rise to specific negative automatic thoughts, which are typically distorted by a range of cognitive processes of which perfectionism and black-and-white thinking are often the most salient. For example, when a youngster notices that her weight has increased by 2 pounds as she steps on the scales she may have the negative automatic thought, ‘I’m a tub of lard!’ This negative automatic thought is underpinned by the core beliefs ‘I’m no good’ and ‘I’m too fat.’ This negative automatic thought is also underpinned by perfectionism insofar as only perfection is acceptable, and by black-and-white thinking insofar as the thought does not reflect the fact that a minor gain in weight has occurred, but rather that the youngster is either ‘a tub of lard’ or not.

With cognitive restructuring, the first step is for the youngster to write down the actual situation and the specific negative automatic thought that occurred in the situation (not a summary or rephrasing of it). These thoughts may be identified in the final columns of self-monitoring sheets within and outside treatment sessions. The following situations usually elicit relevant automatic thoughts: looking in a mirror, weighing themselves, reacting to a comment about their appearance or appetite, being in situations where urges to binge or vomit occur, or seeing themselves in a swimming costume or tight clothes. Here is an example of a situation and the negative automatic thought. ‘I stepped on the scales on Tuesday morning and was 8 stone 2 pounds when I should have been 8 stone. I thought, “I’m a tub of lard! I’m really fat!”’

The second step in cognitive restructuring is to accurately list the evidence that supports the thought. For example, 'My weight increased by 2 pounds over a period of 10 days.'

The third step is to help youngsters list arguments or evidence which cast doubt on the validity of the negative automatic thought. Here Socratic questioning may be used: 'How would you know if any person was fat? What clothes size do you have to have to be fat? Would you judge someone in your class at school who was 8 stone 2 pounds to be fat? Are you applying one set of standards to yourself and another set to other people? Have you gained 2 pounds because your body has accumulated more fat due to overeating or because you are retaining fluid due to being in the premenstrual stage of your monthly cycle? Youngsters may be taught to recognize the cognitive distortions listed earlier in the section on CBT theories of eating disorders and invited to identify which of these are present in their negative automatic thoughts.

The fourth and final step of cognitive restructuring is to help the youngster reach a reasoned conclusion which they may then use to guide their behaviour as an alternative to the negative automatic thought. For example, 'I put on 2 pounds but my weight is within the normal range.'

It is not essential for youngsters to fully accept the validity of their reasoned conclusion. The point is that they become aware through repeatedly challenging their negative automatic thoughts in therapy sessions and as homework that they have a limited number of such thoughts which drive their dieting, bingeing and vomiting behaviour, and that these thoughts are not absolutely true. Also, the negative automatic thoughts become less automatic and more conscious as youngsters become more practiced at challenging them.

As more examples of negative automatic thoughts are addressed in therapy, certain extreme, rigid underlying assumptions, of which youngsters are usually not conscious and which they hold with great tenacity, become clear. Examples include: 'If I am thin and light, then I will be loved by others, happy, successful and worthwhile'; 'If I am fat and heavy, I will be abandoned by others, a failure, sad and worthless'; 'If I have self-control I am strong, good and a success'; 'If I show any sign of lack of control, I am completely powerless, bad and a failure.' These underlying assumptions may tentatively be suggested to youngsters and they may challenged using the four steps for cognitive restructuring outlined earlier. In addition, youngsters may be invited to complete behavioural experiments, to disconfirm their beliefs that they will be ostracized if others see their bodies. For example, youngsters may be invited to wear more close-fitting clothes, to go to exercise classes where they wear leotards, or to go swimming.

Stage III. Relapse prevention

Throughout stage III processes begun in stage I and II are continued. The main goal of the third stage, which involves about three fortnightly sessions, is relapse prevention. A distinction should be made between a complete relapse (a rare event) and a minor lapse or slip (which is a common event). Bingeing as a response to stress may be described as the youngster's Achilles' heel. Youngsters' mastery of bulimia is strengthened by coping well with slips, where they occasionally binge in response to stress. To equip them to cope with slips, youngsters and their parents may be invited to predict the sorts of situations that might trigger such slips, and to develop plans for managing lapses when they occur. Such plans should include acknowledging that the temporary slip is not a permanent relapse; that a slip is an opportunity for gaining strength rather than a sign of weakness; that planning regular daily eating patterns with three meals, two snacks and no dieting is crucial for success; that problem-solving skills should be used to address complex social problems that trigger urges to binge; that negative automatic thoughts and assumptions must be continually challenged; and that parental support is essential for the youngster's success. The youngster should be given a homework assignment of writing out a plan to manage lapses and this plan should be reviewed in the final session.

Prevention

A range of eating disorder prevention programmes have been developed (Hart et al., 2015; Jacobi et al., 2012; Neumark-Sztainer, 2011). The most effective target at-risk groups (adolescent girls with significant body shape and weight concerns), are delivered in school settings by professional interventionist staff using interactive methods, span a number of sessions, and entail parental involvement. Effective programmes address known risk factors especially dieting, body image, media pressure for thinness, healthy eating, exercise, self-esteem and development of adaptive coping skills. There is some evidence for the effectiveness of Internet-based programmes with older adolescents and adults (Beintner et al., 2012).

Summary

About 1–2% of teenage girls have eating disorders. Anorexia is characterized by self-starvation and bulimia by a pattern of dieting, bingeing and purging. Clinical features include a fear of fatness, a distorted body image, a preoccupation with food, a belief that bingeing behaviour is out of control, concerns about individuation, low self-esteem, low self-efficacy, perfectionism, depressive affect, self-destructive behaviour, poor interpersonal adjustment and neuroendocrine abnormalities related to starvation. Important predisposing factors include a genetic predisposition, cultural pressures for thinness, early trauma, perfectionism, low self-esteem, low self-efficacy and unresolved conflicts about individuation. Stresses associated with lifecycle transitions to adolescence or young adulthood may precipitate the onset of eating disorders and they are maintained by the neurophysiological sequelae of starvation in conjunction with belief systems characterized by distorted cognitions and enmeshed, rigid and conflict-avoiding patterns of family interaction. There is a better prognosis for less chronic and severe conditions, and protective factors include the youngster's problem-solving and interpersonal skills and the family's and peer group's capacity to support the youngster with the abnormal eating pattern. For children and young teenagers the treatment of choice for eating disorders is a highly structured family therapy in which the parents are empowered to regularize the child's eating behaviour and later the child is helped to individuate. In severe cases hospitalization for refeeding may be necessary. Manualized CBT over 10–20 sessions, which aims to disrupt the binge–purge cycle and modify the belief systems which underpin this cycle, is the treatment of choice for bulimia, especially in older adolescents. Prevention programmes should target at-risk teenage girls, address key risk factors, be offered in an interactive way and include parental involvement.

Exercise 17.1

Divide the class into a family team and a treatment team. Class members in the family team should take the roles of family members Maggie, Roddy, Bev, Mar and Nick listed in Box 17.1. Imagine that it is the hour before the second family session in which a picnic lunch will occur. Draw up a list of the top three hopes and top three fears that each family member would have going into a family lunch session. Class members in the treatment team, draw up your plan for the session, the things you hope to achieve and your best guess about how family members will respond to this plan. Both groups should present their findings to each other and explore the degree to which the family and treatment teams' expectations match up.

Further reading

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Websites

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B-EAT: Beating Eating Disorders: http://www.b-eat.co.uk/

Bodywhys: http://www.bodywhys.ie/

Eating Disorder Research Society: http://www.edresearchsociety.org/

Eating Disorder Treatment in US: http://eating-disorder.com

European Council on Eating Disorders: http://www.eced.co.uk/

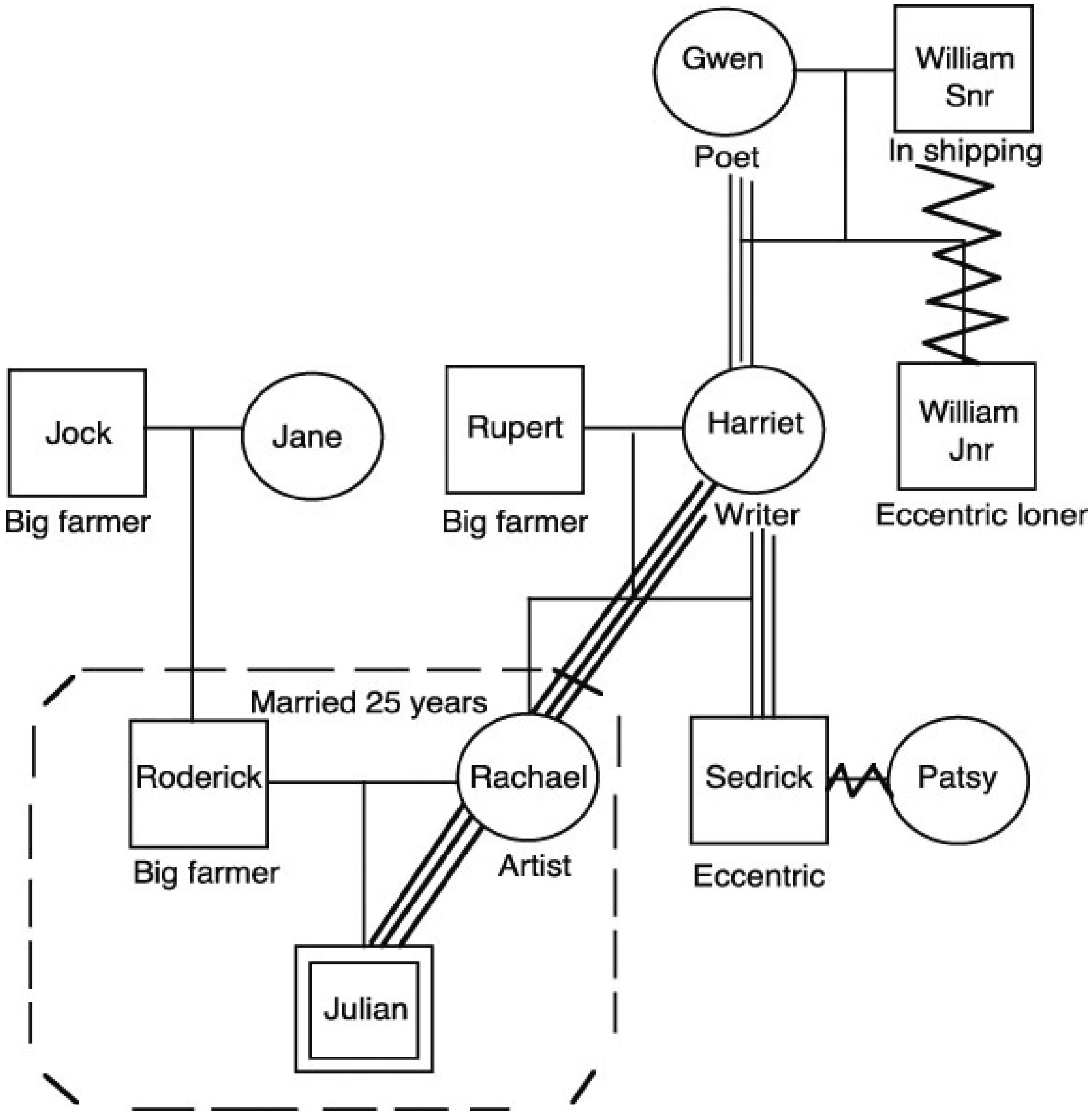
Chapter 18

Psychosis

Psychosis refers to conditions characterized by positive symptoms such as delusions and hallucinations; negative symptoms such as diminished affective expression and reduced goal-directed behaviour; and disorganized thinking and behaviour (American Academy of Child and Adolescent Psychiatry, 2013b; French et al., 2010; Hollis, 2008; Lieberman & Murray, 2012; Mueser & Jeste, 2008; Remschmidt, 2001; Tiffin & Welsh, 2013; Weinberger & Harrison, 2011). The symptoms of psychosis are given in Table 18.1. Psychosis is an umbrella term that covers a range of disorders including schizophrenia and other schizophrenia spectrum disorders which share similar symptoms and genetic aetiology with schizophrenia, but vary in duration, severity and the presence of additional mood symptoms (as detailed below in the next section on diagnosis and classification). The case study of schizophrenia in Box 18.1 illustrates that psychosis is a debilitating condition which compromises the capacity to carry out normal activities. Schizophrenia is a chronic relapsing disorder with incomplete remission between episodes. The symptoms of schizophrenia typically first appear in late adolescence or early adulthood, wax and wane over the life course, and have a profound long-term effect on patients and their families. Schizophrenia is the most debilitating of all psychological disorders, affecting people's capacity to live independently, make and maintain satisfying relationships, engage in family life, work productively and enjoy leisure activities. Rates of school problems, unemployment, homelessness and imprisonment are very high among people with schizophrenia. Although just under 1% of people suffer from schizophrenia, the World Health Organization has ranked it as second only to cardiovascular disease in terms of overall disease burden internationally (Murray & Lopez, 1996). Despite these gloomy facts, scientific advances in our understanding of psychotic symptoms and schizophrenia, and advances in both pharmacological and psychological approaches to treatment, are making it increasingly possible for people diagnosed with schizophrenia to live far more productive lives than was previously possible.

Box 18.1 A case of first-episode psychosis: Julian, the boy who ran east

Referral. Julian was referred for assessment and advice by his family doctor. His parents were worried about him because he had been behaving strangely since returning to his rural home after studying in London for a year. Julian had failed his exams and said he came home to ‘sort his head out’. Since his return home Julian’s parents noticed that he lacked concentration and his conversation was incoherent much of the time. Also, his behaviour was erratic and unpredictable. His parents became particularly concerned when he went missing some weeks prior to the referral. After searching for a few hours, they found him 35 miles from their home, exhausted, dehydrated and dressed in only his sports shorts, singlet and running shoes. Apparently Julian believed he had to complete a secret mission in the east. While jogging that morning, he headed eastwards towards the rising sun. He thought he might jump onto the car ferry when he reached the coast, cross the sea to Holland, and continue east towards India on his secret mission. According to the family doctor, Julian’s account of this episode was not coherent. Since the episode, Julian has spent much of the time in his room muttering to himself, often becoming quite distressed. When his parents spoke to him, they found it hard to make sense of what he said.



Family history. Julian was the 19 year old son of a prominent farmer in a rural English village. The family lived in a large mansion on an extensive estate. Julian's father managed the farm, had a traditional authoritarian manner, and a positive, if distant, relationship with Julian. While he was centrally involved in the search for Julian, once he found his son, Julian's father returned to work and left the care of Julian to his wife.

Julian's mother was an artist. She dressed flamboyantly, behaved in a theatrical manner and held eccentric, unconventional beliefs. For example, she held conspiracy theories about many issues, was interested in Eastern mysticism and believed that faith healing and alternative medicine were preferable to traditional Western medicine. This personal style affected how she treated Julian after the 'running east' episode. She engaged him in intense conversations about the mystical meaning of the psychotic experiences that led to him trying to make his way to India on foot. Rather than taking Julian to the accident and emergency department of the local hospital for assessment, she brought him to a faith healer and then a homoeopathist. It was only after these interventions failed to soothe his distress that she brought Julian to the family doctor, who made the referral to the community mental health team. In the preliminary assessment interview which we conducted with Julian and both of his parents, Julian's mother responded to him with intense emotional over-involvement (an index of high expressed emotion associated with relapse in schizophrenia; Hooley, 2007).

With regard to the extended family, according to Julian's parents there was no family history of psychological disorder. However, some members of the mother's well-to-do family were odd or eccentric, especially her brother, Sedrick, and her uncle, William Junior. William's eccentricities led him into serious conflict with his father and Sedrick's odd behaviour underpinned his highly conflictual, childless marriage.

Developmental history. Julian grew up on the family farm and went to school locally. His development was essentially normal. His academic performance at school was above average. He had many friends in his local village, and was a popular child and adolescent. Julian was excellent at cricket. He had no psychological problems before going to university in London at 18. Julian's first term at college was successful academically and socially. However, the occasional experimental cannabis use that had begun the summer before going to college turned to regular use, once Julian moved to London. During his time at university Julian also experimented with LSD on a few occasions. In the final term of his first year at college, Julian developed an intense fear of exam failure. He began to have difficulty studying effectively and often had difficulty sleeping. He stopped attending classes regularly and increasingly spent time alone. Julian was relieved to return home after sitting his exams. His parents described him as quiet and thoughtful during the time he spent at home prior to the 'running east' episode.

Presentation. Julian presented with delusions, hallucinations, disorganized speech and anxiety. He was reluctant to be interviewed because he believed he had urgent business to attend to in Holland and further afield in India. He showed signs of being anxiously distressed throughout the interview. He explained that his path was to the east. He believed he was being called there by an unknown source. He knew this because of the sign he had seen while out jogging on the morning of the 'running east' episode. The way an old cart wheel caught the sunlight and cast a shadow on the red-bricked wall of a barn against which it leaned made a distinctive pattern. This pattern was a special sign for him indicating that he should go east, first to Holland and then all the way to India. When he questioned this idea, a clear authoritative voice said that he should leave at once. At this point in his narrative, he stopped in midsentence. He showed thought blocking, and lost the thread of what he was saying. When asked to continue his story, he began to giggle. When asked what was amusing, he said that he could hear someone say something funny. Julian then spoke about a number of unconnected topics in an incoherent way before experiencing thought blocking again. Later he said that he must go soon because people would try to prevent him. He had heard them talking about him the day before. Julian said they had tried to put bad ideas into his head. He described being frightened by this and by periodic sensations that everything was too loud and too bright and coming at him. He said 'it was like doing acid [LSD] all the time…a really bad trip.'

Formulation. Julian presented with auditory hallucinations, delusions, thought disorder, anxiety and a significant deterioration in social and occupational functioning which had been present for more than a month, symptoms consistent with a diagnosis of first-episode psychosis and an ICD-10 diagnosis of schizophrenia. He also showed a complete lack of insight. He was unable to appreciate that the voices he heard were hallucinations and his delusional beliefs were unfounded. Among the important precipitating factors were the experience of recent exam pressure and Julian's transition from living at home to living in London and attending college. The principal predisposing factors were a possible genetic vulnerability to psychosis and a history of hallucinogenic drug use. We suspected that there was a genetic vulnerability in this case because of the odd, eccentric behaviour of his mother and uncles suggestive of a high level of the trait schizotypy. His condition was maintained, we suspected, by a high level of maternal expressed emotion characterized principally by emotional over-involvement. Also, his mother inadvertently reinforced his delusions through engaging him in long conversations about them. Protective factors in this case were good pre-morbid adjustment and strong family support.

Treatment. The treatment plan included antipsychotic medication and family work to reduce parental expressed emotion with an initial brief period of hospitalization. Julian did recover from this first psychotic episode. With medication, his hallucinations and delusions decreased considerably. Through family psychoeducation, his parents developed an understanding of his condition and of his need for a 'low-key' approach to interacting with him as he recovered. However, there were obstacles to this multi-modal treatment programme being as effective as possible. Julian did not like the side effects of his medication, especially weight gain and reduced sexual functioning, and so had poor medication adherence. He also became depressed during remission when he thought about the many losses that followed from his condition. He was unable to continue his university education, and so could not pursue the career in law he had dreamed of. He found it difficult to maintain friendships or to commit to regularly engaging in sports. When he felt low, Julian would smoke cannabis to lift his spirits. Julian's mother found it difficult to accept his diagnosis and continued to believe that there was a spiritual or mystical explanation for his psychotic symptoms. She said she sometimes thought he was not an ill young man, but a gifted seer or a 'chosen one'. She often engaged Julian in intense, distressing conversations about these issues. In the years that followed his initial assessment, poor medication adherence, ongoing cannabis use and exposure to high levels of expressed emotion led Julian to relapse more frequently than might otherwise have been the case.

Table 18.1 Positive symptoms, negative symptoms and disorganization which occur in psychosis

Category	*Symptoms*	*Description*
Positive symptoms	**Delusion**	A firmly held belief for which there is no evidence or which is not accepted by other members of the person's culture. Common delusions in psychosis include the following: **Persecutory**: That one will be harmed **Control**: That some force is controlling the self **Referential**: That cues or comments are directed at the self **Grandiose**: That one has exceptional abilities, wealth, fame or significance **Somatic**: That part of the body has an unusual function or is unhealthy **Thought withdrawal**: That some force has removed one's thoughts **Thought insertion**: That some force has inserted thoughts into one's mind **Thought broadcasting**: That one's thoughts are being broadcast out loud so others can hear them **Erotomanic**: That another person is in love with the self

		Delusional jealousy: that one's romantic partner is unfaithful
	Hallucination	A vivid perception-like experience (e.g. hearing voices or seeing visions) in the absence of a corresponding external stimulus. The person may or may not have insight into the non-veridical nature of the hallucination. Delusions may develop to explain of the hallucinations (e.g. the TV station is controlling me by beaming electricity into my pelvis, and I can feel this). Hallucinations may take various forms: **Auditory**: Hallucinations of sounds, usually hearing voices **Visual**: Hallucinations of images, usually people but occasionally unformed images such as flashes of light **Geometric**: Hallucinations of tunnels, spirals, lattices or cobwebs **Tactile**: Hallucinations of being touched, shocked, or having something crawling under the skin **Somatic**: Hallucinations of physical experiences within the body, for example electricity **Olfactory**: Hallucination of odours such as burning rubber or decaying flesh **Gustatory**: Hallucination of tastes, usually unpleasant
Negative symptoms	**Diminished emotional expression**	Decreased verbal and non-verbal expression of emotions with the voice, face, and hands; also referred to as blunted or flattened affect
	Avolition	Decreased purposeful goal-directed activity
	Alogia	Decreased speech output
	Anhedonia	Decreased capacity to experience pleasure or recall pleasantness of positive events
	Asociality	Lack of interest in social activities
Disorganization	**Formal thought disorder**	Disorganized thinking shown by incoherent switching from one topic to another (derailment or loose associations) and difficulty maintaining a coherent train of thought from A to B
	Disorganized behaviour	Difficulty organizing, planning and completing activities of daily living
		Decreased reactivity to the environment shown by lack or verbal or motor responses (stupor), little

Catatonic behaviour	speech (mutism), resistance to instructions (negativism), maintaining self-imposed bizarre rigid postures (posturing) or externally imposed postures (waxy flexibility), purposeless excessive motor activity (catatonic excitement), repetitive movements (stereotypy), mimicking others' speech (echolalia), or mimicking others' movements (echopraxia)

In this chapter, after considering the diagnosis, classification, clinical features, and epidemiology of schizophrenia (and related psychoses), a variety of theoretical explanations concerning the aetiology of the conditions subsumed under this label will be considered along with relevant empirical evidence. An approach to the assessment and treatment of psychosis in adolescence will then be given.

Diagnosis and classification

Diagnostic criteria for schizophrenia from DSM-5 (APA, 2013) and ICD-10 (1992) are given in Table 18.2. The marked variability among people diagnosed with schizophrenia in symptomatology, course, treatment response and possible aetiological factors has led to the identification of different sub-types of schizophrenia. In ICD-10 the main sub-types of schizophrenia are defined in terms of the most prominent symptoms. Distinctions are made between paranoid, hebephrenic, and catatonic schizophrenia (as well as a number of other less clearly defined categories). In paranoid schizophrenia, paranoid delusions, usually accompanied by auditory hallucinations, are the most prominent symptoms. In hebephrenic schizophrenia, diminished or inappropriate affective expression is the predominant symptom, coupled with formal thought disorder or avolition. In catatonic schizophrenia either retarded or excited catatonic behaviour is the principal feature. Similar distinctions between sub-types of schizophrenia, which date back to Emil Kraepelin's (1899) seminal work and were made in earlier versions of the DSM were dropped in DSM-5. Research has shown that these sub-types are not consistently differentiated by family history, course, prognosis or treatment response.

In contrast to the lack of success in validating sub-types of schizophrenia, there has been considerable progress in identifying other conditions on the schizophrenia spectrum which share a similar genetic aetiology and symptom profile (Mamah & Barch, 2011). This approach to classification of schizophrenia-like psychotic disorders is used in both ICD-10 and DSM-5. In DSM-5 schizophrenia spectrum disorders include those which have the same symptomatology as schizophrenia, but are of briefer duration (brief psychotic disorder where the disturbance is less than a month and schizophreniform disorder where the disturbance is between 1 and 6 months); those with the same symptomatology as schizophrenia in addition to manic or depressive symptoms (schizoaffective disorder); those characterized by a single class of psychotic symptoms (delusional disorder and catatonia); and those characterized by chronic mild schizophrenia-like symptoms (schizotypal personality disorder). An attenuated psychosis syndrome for individuals with brief episodes of one or more psychotic symptoms and insight into these is included in DSM-5 as a schizophrenia spectrum condition deserving further study. This condition is typically shown by those at high risk for developing psychosis (Fusar-Poli et al., 2013; Tiffin & Welsh, 2013). In ICD-10 schizophrenia spectrum disorders include schizophrenia, acute and transient psychotic disorders, schizoaffective disorder, persistent and induced delusional disorders, and schizotypal disorder. Research on the shared aetiology, symptomatology and treatment response of schizophrenia spectrum disorders and factor analytic studies of their symptomatology suggests that the distribution of psychotic symptoms within the population more closely approximates dimensions rather than disease-like categories. The three principal dimensions are those involving positive symptoms, negative symptoms and disorganization (Rietkerk et al., 2008).

Clinical features

A range of clinical features associated with schizophrenia spectrum psychoses have been identified through research and clinical observation (American Academy of Child and Adolescent Psychiatry, 2013b; Hollis, 2008; Lieberman & Murray, 2012; Mueser & Jeste, 2008; Remschmidt, 2001; Tiffin & Welsh, 2013; Weinberger & Harrison, 2011). A classification of these in the domains of perception, cognition, emotion, behaviour, social adjustment and somatic state is given in Table 18.3.

Table 18.2 Diagnosis of schizophrenia

DSM-5	*ICD-10*
	A minimum of one very clear symptom (or two or more, if less clear cut) belonging to any one of the groups (a) to (d) or at least two of the symptoms (e) to (h) should have been present most of the time during a period of *1 month* or more. (a) thought echo, thought insertion or withdrawal

A. Two (or more) of the following, each present for a significant portion of time during a 1-month period (or less if successfully treated). At least one of these must be (1), (2), or (3):

1. Delusions.
2. Hallucinations.
3. Disorganized speech (e.g., frequent derailment or incoherence).
4. Grossly disorganized or catatonic behaviour.
5. Negative symptoms (i.e., diminished emotional expression or avolition).

B. For a significant portion of the time since the onset of the disturbance, level of functioning in one or more major areas, such as work, interpersonal relations, or self-care, is markedly below the level achieved prior to the onset (or when the onset is in childhood or adolescence, there is failure to achieve expected level of interpersonal, academic, or occupational functioning).

C. Continuous signs of the disturbance persist for at least 6 months. This 6-month period must include at least 1 month of symptoms (or less if successfully treated) that meet Criterion A (i.e., active-phase symptoms) and may include periods of prodromal or residual symptoms. During these prodromal or residual periods, the signs of the disturbance may be manifested by only negative symptoms or by two or more symptoms listed in Criterion A present in an attenuated form (e.g., odd beliefs, unusual perceptual experiences).

D. Schizoaffective disorder and depressive or bipolar disorder with psychotic features have been ruled out because either 1) no major depressive or manic episodes have occurred concurrently with the active-phase symptoms, or 2) if mood episodes have occurred during active-phase symptoms, they have been present for a minority of the total duration of the active and residual periods of the illness.

E. The disturbance is not attributable to the physiological effects of a substance (e.g., a drug of abuse, a medication) or another medical condition.

and thought broadcasting

(b) delusions of control, influence, or passivity, clearly referred to body or limb movements or specific thoughts, actions or sensations; delusional perception

(c) hallucinatory voices giving a running commentary on the patient's behaviour, or discussing the patient among themselves, or other types of hallucinatory voice coming from some part of the body

(d) persistent delusions of other kinds that are culturally inappropriate and completely impossible, such as religious or political identity, or superhuman powers and abilities

(e) persistent hallucinations in any modality, when accompanied either by fleeting or half-formed delusions without clear affective content, or by persistent overvalued ideas, or when occurring every day for weeks or months on end

(f) breaks or interpolations in the train of thought, resulting in incoherence

F. If there is a history of autism spectrum disorder or a communication disorder of childhood onset, the additional diagnosis of schizophrenia is made only if prominent delusions or hallucinations, in addition to the other required symptoms of schizophrenia, are also present for at least 1 month (or less if successfully treated). (For specifiers, see DSM-5, pp. 99–100.)	or irrelevant speech or neologisms (g) catatonic behaviour, such as excitement, posturing, or waxy flexibility, negativism, mutism and stupor (h) negative symptoms such as marked apathy, paucity of speech, and blunting or incongruity of emotional responses, usually resulting in social withdrawal and lowering of social performance (i) a significant and consistent change in the overall quality of some aspects of personal behaviour, manifest as loss of interest, aimlessness, idleness, a self-absorbed attitude and social withdrawal.

Note: DSM-5 diagnostic criteria are reprinted with permission from the *Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition* (APA, 2013). Copyright © 2013 American Psychiatric Association. The material in the column headed ICD-10 is a summary of the clinical description and diagnostic guidelines for schizophrenia. For the full official WHO clinical descriptions and diagnostic guidelines for this disorder see WHO, 1992, pp. 86–95.

Table 18.3 Clinical features of psychosis and schizophrenia

Perception	• Breakdown in perceptual selectivity • Hallucinations
Cognition	• Delusions • Confused sense of self • Lack of insight • Formal thought disorder • Cognitive impairment (IQ, attention, memory, executive function, psychomotor speed)
Emotion	• Prodromal anxiety and depression • Inappropriate, flattened or blunted affect • Post-psychotic depression

Behaviour	• Prodromal excitation (sleeplessness, impulsivity, over-activity, compulsivity) • Impaired goal-directed behaviour • Excited or retarded catatonic behaviour
Social adjustment	• Poor self-care and hygiene • Poor educational or work performance • Withdrawal from peer relationships • Deterioration in family relationships
Somatic state	• Co-morbid substance use • Co-morbid health problems (chronic obstructive pulmonary disease [COPD], obesity, heart disease, HIV/AIDS, hepatitis B & C) • Unhealthy lifestyle (poor diet, obesity, little exercise, smoking)

Perception

At a perceptual level individuals with schizophrenia spectrum psychoses describe a breakdown in perceptual selectivity, with difficulties focusing on essential information or stimuli to the exclusion of accidental details or background noise. Everything seems to be salient and it is difficult to distinguish figure from ground. During an acute psychotic state, internal stimuli such as verbal thoughts are experienced as auditory hallucinations which have the same sensory quality as the spoken word. Auditory hallucinations may be experienced as loud thoughts, as thoughts being repeated by another person aloud (thought echo), as voices speaking inside the head, or as voices coming from somewhere in the outer environment. Auditory hallucination may occur as a third-person commentary on the patient's action, as a voice speaking in the second person directly to the patient, or as two or more people talking or arguing. Patients may perceive voices to vary along a number of dimensions. Voices may be construed as benign or malevolent, controlling or impotent, all-knowing or knowing little about the person, and the person may feel compelled to do what the voice says or not. Hallucinations that are perceived to be malevolent, controlling, all-knowing and which the individual feels compelled to obey are far more distressing than those which are not construed as having these attributes. As well as varying in the distress they cause, hallucinations may vary in frequency and intensity; the situations or stimuli that trigger their onset (e.g. threatening events); and the degree to which patients can suppress them by using coping strategies such as distraction, relaxation or seeking social support. While auditory hallucinations are the most common in schizophrenia, hallucinations may occur in other sensory modalities. Somatic hallucinations often occur in schizophrenia spectrum psychoses, with patients reporting feelings of electricity in their body or things crawling under their skin. These may be given delusional interpretations. For example, a patient reported that the television was activating a transmitter in her pelvis and she could feel the electricity from this causing insects to grow and move around under her skin. Visual hallucinations – seeing visions

– are relatively rare in schizophrenia spectrum psychoses, but common in temporal lobe epilepsy.

Cognition

Delusions are the most prominent cognitive clinical features of schizophrenia spectrum psychoses. Delusions are false, idiosyncratic, illogical and stubbornly maintained erroneous inferences drawn to explain unusual experiences, such as hallucinations. For example, a patient with auditory hallucinations in which she heard an authoritative voice giving her commands to gather the children to her inferred that she had been chosen by God to prepare all children for the Second Coming of Christ. Delusions may arise, not only from hallucinations, but also from unusual feelings associated with psychosis. Persecutory delusions may develop from feelings of being watched. Delusions of thought insertion or thought withdrawal may develop as explanations for feelings that thoughts are not one's own, or that one's thoughts have suddenly disappeared. Factor analyses show that delusions fall into three broad categories: delusions of influence (including thought withdrawal or insertion, and beliefs about being controlled); delusions of self-significance (including delusions of grandeur or guilt); and delusions of persecution (Vahia & Cohen, 2008). Delusions may vary in the degree of conviction with which they are held (from great certainty to little certainty), the degree to which the person is preoccupied with them (the amount of time spent thinking about the belief), and the amount of distress they cause.

Particular sets of delusions may entail a confused sense of self, particularly paranoid delusions where individuals believe that they are being persecuted or punished for misdeeds or delusions of control where there is a belief that one's actions are controlled by others.

During a psychotic episode there is usually lack of insight and impaired judgement. That is, patients believe that the content of their hallucinations and delusions are legitimate, and they have difficulty entertaining the idea that these experiences and beliefs arise from a clinical condition. Between psychotic episodes, insight may improve and patients may move towards accepting that their hallucination and delusions are psychotic symptoms.

The speech of patients with schizophrenia spectrum disorders is difficult to understand because of abnormalities in the underlying form of thought. Formal thought disorder is characterized by tangentiality, derailment, incoherence, thought blocking, loss of goal and neologisms. With tangentiality, answers given to questions are off the point. With derailment, sentences make sense, but little meaning is conveyed by sequences of sentences because there is a constant jumping from one topic to another with only very loose associations between topics and little logic to what is said. With incoherence, sentences are incorrectly formed so they do not make sense. With thought blocking, the person abruptly stops in midsentence and is unable complete their train of thought. With loss of goal there is a difficulty in following a logical train of thought from A to B. With neologisms new words are made up that have an idiosyncratic meaning for the patient.

Cognitive impairment or deterioration occurs in schizophrenia. This may be either general or specific. With general cognitive deterioration, there is a reduction in overall IQ with many cognitive functions negatively affected. With specific cognitive impairment one or more of the following functions may be impaired: attention, memory, cognitive flexibility, social cognition and executive function, particularly the capacity to follow through on a planned course of action. Cognitive impairment is a better predictor of disability and vocational functioning than positive symptoms.

Emotions

At an emotional level, during the prodromal phase, before an acute psychotic episode, anxiety or depression may occur in response to initial changes in perceptual selectivity and cognitive inefficiency. A key part of relapse prevention is for patients to learn how to identify and manage prodromal changes in affect. During acute psychotic episodes, anxiety or depression may occur in response to hallucinations, delusions, formal thought disorder and other distressing symptoms. A disturbance of affect is the hallmark of hebephrenic schizophrenia. With inappropriate affect the individual responds not to the external social context but to internal stimuli such as auditory hallucinations, for example by laughing wildly. Diminished expression of emotions, also referred to as flattened or blunted affect may occur, particularly in chronic cases. During remission following an episode of psychosis, the sense of loss that comes with increased insight into the problems entailed by psychosis may give rise to post-psychotic depression.

Behaviour

At a behavioural level, prodromal excitation may occur prior to an acute psychotic episode. This may be characterized by sleep disturbance, impulsive behaviour, and over-activity which may include compulsive behaviour. During acute psychotic episodes, avolition occurs with impairment of goal-directed behaviour. In chronic cases catatonic behaviour may occur with impairment in the capacity to initiate and organize voluntary movement and posture. Catatonia may be either retarded or excited. Excessive purposeless motor activity is the hallmark of excited catatonia and may include stereotypies (repetitive actions), echolalia (repeating words said by others) or echopraxia (imitating the actions of others). With retarded catatonic behaviour there is a marked reduction in purposeful activity. Patients may show immobility, mutism, adopt unusual postures for long periods of time, and display waxy flexibility (allowing one's limbs to be manipulated like a warm candle) or negativism (resisting attempts to have one's limbs moved).

Social adjustment

In schizophrenia spectrum disorders there is a marked functional impairment and deterioration in social adjustment. The capacity for self-care, dressing appropriately, grooming and personal hygiene deteriorates, so that people with psychosis often look dishevelled and unkempt. A significant decline in performance in educational and work settings occurs. There is a withdrawal from regular socializing with friends and difficulty making and maintaining new relationships. A deterioration in relationships with family members also occurs. Psychosis has a negative impact on parent–child and sibling relationships.

Somatic state

About half of all people with schizophrenia have co-morbid substance use disorders and almost three-quarters have significant health problems, although most of these occur in adulthood. The most common health problems include chronic obstructive pulmonary disease (COPD), which is usually due to smoking; heart disease and diabetes due to obesity; and HIV/AIDS and hepatitis B and C due to unsafe sex and intravenous drug use. These latter problems may occur in adolescents with psychosis. The substance use and medical problems so common in schizophrenia are essentially lifestyle problems. On the positive side, schizophrenia is associated with reduced rates of cancer and rheumatoid arthritis (Tandon et al., 2008a).

Epidemiology course, outcome and risk factors

The lifetime prevalence rates of schizophrenia spectrum disorders are 0.2% for delusional disorder, 0.2–1.1% for schizoaffective disorder, 0.7% for schizophrenia and 4% for schizotypal disorder (Abrams et al., 2008; American Psychiatric Association, 2013; Ryan et al., 2013; Saha et al., 2005). Less is known about the epidemiology of other schizophrenia spectrum disorders, and most is known about schizophrenia. The focus in this section will therefore be on schizophrenia. Much of what is known about this condition is based on studies of older adolescents and adults. Slightly more men than women suffer from schizophrenia. The male–female ratio is about 1.4:1 (McGrath et al., 2004). About a third of cases have their first psychotic episodes during adolescence. The onset of schizophrenia is earlier in males than females (Murray & Van Os, 1998). The rates of schizophrenia are similar across countries and cultures when similar diagnostic criteria are used (Mueser & Duva, 2011). Co-morbid alcohol and substance use is common in schizophrenia (Cementon et al., 2012). Post-traumatic stress disorder (PTSD) symptoms in response to the experience of psychotic symptoms and hospitalization are common among trauma survivors with psychosis (Berry et al., 2013). Psychosis occurs in up to 6% of people with seizure disorders (Clancy et al., 2014).

Schizophrenia follows a distinctive course although there is considerable variability across cases (Jablensky, 2009; Jobe & Harrow, 2010; Lang et al., 2013; Mueser & Duva, 2011, Tandon et al., 2009; van Os et al., 2012). The onset of schizophrenia typically occurs in late adolescence or early adulthood and may be acute or insidious. Typically the onset takes place over 5 years starting with negative and depressive symptoms, followed by cognitive and social impairment and finally positive symptoms. Longitudinal studies suggest that there is an early deterioration phase that extends over 5–10 years, a stabilization phase and a final gradual improvement phase. For 50–70% of cases the condition follows a chronic relapsing course, typically with incomplete remission between episodes. However, up to 40% of patients show one or more periods of complete recovery with good adjustment for at least a year and 4–20% show complete remission. Psychotic episodes may last 1–6 months, although some extend to a year. They are usually preceded by a prodromal period of a number of weeks. Psychotic episodes may be shortened and the severity of symptomatology ameliorated through early detection and the use of pharmacological and psychological treatment as outlined later. Inter-episode functioning may vary greatly and better inter-episode functioning is associated with a better prognosis. The duration of remission between episodes may be lengthened through the use of maintenance medication and psychosocial interventions to reduce stress and improve coping and illness management. With treatment, usually positive symptoms (hallucinations and delusions) abate between episodes but negative symptoms (diminished emotional expression, alogia and avolition) are relatively enduring and are more likely to persist during remission. In the stabilization phase of schizophrenia positive symptoms become less prominent, while negative symptoms and cognitive deficits become more prominent. The lifespan of people with schizophrenia is about 9 years shorter than that of the general population, and this is partly accounted for by the high rate of suicide during the first 10 years of the disorder and the high rate of co-morbid medical disorders mentioned earlier.

About half of all people with schizophrenia attempt suicide or self-harm; the lifetime risk for completed suicide is 5%; and suicide usually occurs in the early phase of the disorder (Challis et al., 2013; Heisel, 2008; Hor & Taylor, 2010; Schennach-Wolff et al., 2011). Risk factors for suicide include being a young, highly educated male with positive symptoms, co-morbid depressed mood and substance use, a family history of suicide, and previous suicide attempts. Treatment adherence is a protective factor for suicide in psychosis.

Risk factors for schizophrenia are listed in Table 18.4 (Lenzenweger, 2010; Matheson et al., 2011, 2013; Murray & Castle, 2009; Tandon et al., 2008b). The greatest risk factor for schizophrenia is a family history of psychosis. This probably finds subclinical expression as schizotypy, a personality trait in which the central feature is a disorganized thinking style similar to (although much milder than) that shown in schizophrenia (Lenzenweger, 2010). Other risk factors make a small but significant contribution to overall risk within the context of that associated with genetic vulnerability. However, at present there is no consensus on how these risk factors operate. Pre- and peri-natal risk factors, such as maternal flu infection and obstetric complications, probably have a negative direct or indirect effect on the development of the nervous system in line with the neurodevelopmental hypothesis mentioned later rendering those genetically predisposed even more neurobiologically vulnerable to psychosis (Murray & Lewis, 1987). Trauma exposure, childhood adversity and most demographic risk factors (unmarried, low socio-economic status, urban migrant) are associated with higher levels of stress and lower levels of social support, which increase the risk of psychosis in the genetically vulnerable according to diathesis-stress conceptualizations of the condition (Zubin & Spring, 1977). It is probable that the mechanism by which cannabis use affects schizophrenia is neurobiological rather than social-environmental (Barkus & Murray, 2010).

In the short term, relapse is more likely in cases where there is heavy cannabis use, poor treatment adherence, frequent contact with family members who display high expressed emotion (criticism, hostility and emotional over-involvement) and exposure to acute stressful life events (Jablensky, 2009).

Table 18.4 Risk factors for schizophrenia

Genetic factors	• Positive family history of psychosis
Personality	• Schizotypy
	• Maternal flu infection or malnutrition in first or second trimester
Pre- and peri-natal factors	• Father over 35 years
	• Obstetric complications (low birth weight, prematurity, resuscitation)
	• Birth in late winter or early spring
	• Male
	• Unmarried
Demographic factors	• Urban dwelling
	• Migrant
	• Low socio-economic status
Life history factors	• Trauma history
	• Cannabis use

Longitudinal studies show that the risk factors listed in Table 18.5 are associated with poorer outcome (Álvarez-Jiménez et al., 2012; Bota et al., 2011; Jablensky, 2009; Jobe & Harrow, 2010; van Os et al., 2012). A poor outcome is associated with a family history of schizophrenia, particularly with negative symptoms, and a better outcome is associated with a family history of depression. A poor outcome occurs in more males than females. It is associated with substance use, treatment non-adherence and a longer period of untreated psychosis in people who have poor pre-morbid adjustment, an early insidious onset with no clear stressful life event preceding their first treated episode. A high level of trait anxiety, which is probably subserved by hypothalamic-pituitary-adrenal (HPA) axis over-activity and an external locus of control are the main personality traits associated with poor outcome. People with this stress-sensitive profile are more reactive to stressful life events, including those associated with living in a developing country, and family-based stress associated with high levels of expressed emotion, all of which are also risk factors for poor outcome. A poorer outcome occurs for those who are single and have few friends, factors which suggest low levels of social support. The symptom profile predictive of a poor outcome is marked by severe negative symptoms, cognitive impairment and lack of depressive symptoms.

A favourable outcome in schizophrenia is associated with a range of factors (Bota et al., 2011). These include good pre-morbid adjustment, and a brief duration of untreated psychosis characterized by an acute onset in response to precipitating stressful life events. A family history of affective disorder (rather than schizophrenia) or little psychopathology and a personal symptom profile in which there are affective as well as psychotic features are also predictive of a good prognosis. A better outcome occurs for those who have a favourable life situation to return to following discharge from hospital. Approximately half of individuals with attenuated psychotic syndrome at high risk for psychosis do not develop a schizophrenia spectrum disorder (Simon et al., 2013).

Table 18.5 Risk factors for a poor outcome in schizophrenia

Family history	• Family history of schizophrenia (not depression)
Early stage	• Male • Obstetric complications • Early age of onset • Insidious onset • Poor pre-morbid adjustment • Longer duration of untreated psychosis • Lack of an identifiable precipitating stressor prior to hospitalization
Personality traits	• Trait anxiety (and HPA axis hyperactivity) • External locus of control
Symptom profile	• Severe negative symptoms (blunted affect, alogia, avolition) • Severe cognitive impairment • Lack of depressive symptoms
Lifestyle	• Poor treatment adherence • Substance use
Social context	• Single • Few friends • Stressful life events

- Frequent contact with family members who display high expressed emotion (over-involvement and criticism)
- Living in a developing country

Aetiological theories

Historically research on schizophrenia has followed from two principal traditions founded by the German psychiatrist Emil Kraepelin (1899) and the Swiss psychiatrist Eugen Bleuler (1911). Kraepelin defined the condition, which he named dementia praecox, as principally characterized by a constellation of observable symptoms (such as delusions, hallucinations and thought disorder) and a chronic course due to an underlying degenerative neurological condition. In contrast Bleuler, who coined the term schizophrenia, conceptualized the condition as a disturbance in a circumscribed set of inferred psychological processes. He speculated that the capacity to associate one thought with another; to associate thoughts with emotions; and the self with reality were impaired or split. Hence the term schizophrenia (from the Greek words for *split* and *mind*). Bleuler proposed that the four primary symptoms of schizophrenia were loosening of ***A**ssociations* (difficulty thinking straight), incongruous or flattened ***A**ffect*, impaired goal directed behaviour or ***A**mbivalence* due to conflicting impulses, and ***A**utism* or social withdrawal. The capitalized and italicized words in the last sentence are sometimes referred to a Bleuler's 4 As. Bleuler argued that positive symptoms such as delusions and hallucinations were secondary to these central psychological difficulties. For Bleuler, the symptoms of schizophrenia such as delusions and hallucinations represented the person's attempt to cope with the world despite disruption of central psychological processes. While Kraepelin conceptualized schizophrenia as being distributed within the population as a discrete disease-like category, Bleuler viewed the disturbed psychological processes that he proposed underpinned schizophrenia as on a continuum with normal psychological functioning. These different views were precursors of the modern categorical and dimensional approaches to understanding schizophrenia (Linscott & Van Os, 2010). Current evidence supports a dimensional model within which schizotypy in the healthy population and schizophrenia spectrum disorders fall on a continuum (Nelson et al., 2013).

Up until the late 1970s, Bleuler's tradition, associated with a broad definition of schizophrenia, predominated in the US whereas in the UK, Ireland and Europe, Kraepelin's narrower definition held sway. Following the landmark US–UK diagnostic study (US-UK Team, 1974) that highlighted the extraordinary differences between the way schizophrenia was defined in America and Britain, there has been a gradual move towards developing an internationally acceptable set of diagnostic criteria. The narrowing of the gap between the North American and European definitions of schizophrenia is reflected in the marked similarity between the diagnostic criteria for the disorder contained in current versions of the

ICD and DSM presented in Table 18.2.

Modern research on schizophrenia has also been guided by two broad groups of theories. The first, in the tradition of Kraepelin, has been concerned largely with the role of biological factors in the aetiology and maintenance of the disorder. The second group of theories, in the tradition of Bleuler, has addressed the role of psychological factors in schizophrenia. In the following sections, biological and psychological theories of schizophrenia and related research findings will be considered. Key tenets and implications of these theories are given in Table 18.6.

With some exceptions, most research on psychosis has involved older adolescents or adults, not children (Hollis, 2008; Remschmidt, 2001; Tiffin & Welsh, 2013). Caution is therefore required when generalizing from the adult-informed literature to children. However, the similarities between schizophrenia spectrum disorders in children and adults suggest that there is considerable continuity from childhood to adulthood for these conditions, and therefore it is quite likely that similar biological and psychological processes underpin these disorders across the lifespan.

Table 18.6 Theories of psychosis

Type	*Theory*	*Theoretical principles*	*Principals of treatment*
Biological theories	**Genetic hypothesis**	A genetic predisposition renders some young people vulnerable to schizophrenia	Psychoeducation and medication
	Neurodevelopmental hypothesis	Pre- and peri-natal adversities which cause neuroanatomical abnormalities lead to schizophrenia in genetically vulnerable cases	Multi-modal interventions
	Neurotransmitter dysregulation hypotheses	Dysregulation of the dopaminergic and glutamatergic neurotransmission systems causes the symptoms of schizophrenia	Antipsychotic medication

Psychological theories	**Two-syndrome hypothesis**	Type 1 schizophrenia is genetically determined and leads to positive symptoms associated with dysregulation of the dopamine system Type 2 schizophrenia is due to pre- or peri-natal brain damage and leads to negative symptoms	Antipsychotic medication to treat positive symptoms and rehabilitative interventions to treat negative symptoms
	Neurotoxicity hypothesis	Extended period of untreated psychosis causes neurobiological pathology	Early intervention
	Diathesis-stress model	Psychosis occurs when neurobiologically vulnerable individuals are exposed to psychosocial stress	Multi-modal interventions
	Family systems theory and therapy	Expressed emotion (criticism and over-involvement) affect the course of psychosis, particularly the timing and rate of relapse	Psychoeducational family therapy to reduce emotional intensity of family interactions
		When neurobiologically vulnerable individuals are exposed to stress, this increases	

Cognitive theory and cognitive-behavioural therapy	physiological arousal, reduces available cognitive resources, and increases experience of delusions, hallucinations and negative symptoms which involve cognitive biases, distortions, misattributions and dysfunctional coping strategies	Cognitive-behavioural therapy to challenge dysfunctional thinking and promote use of adaptive coping strategies
Cognitive deficit theory and cognitive remediation	Functional impairment in psychosis is due to in large part to cognitive deficits affecting attention, memory, processing speed, cognitive flexibility, social cognition and executive function	Cognitive remediation to ameliorate cognitive deficits and improve functional impairment
Social skill and social cognition theory	Functional impairment in psychosis is due to in large part to deficits in social skills and social cognition	Social skills and social cognition training to ameliorate social skills and cognition deficits and improve functional impairment
	The onset of an episode of psychosis is heralded by a	Early intervention and developing relapse

Prodromal hypothesis	clearly identifiable prodromal dysphoric syndrome	prevention plans to manage prodromal symptoms
Recovery model	The recovery process is a personal journey from psychosis to mental health The recovery model privileges the concepts of optimism, well-being, personal strengths, supportive relationships, collaboration, personal choice, adaptive coping, developing a meaningful life, civil rights, empowerment and inclusion	Multiple recovery-focused interventions and service delivery models including early intervention, strengths-based case management, assertive community treatment, and vocational rehabilitation

Biological theories

Biological theories of schizophrenia spectrum disorders point to the role of genetic and neurodevelopmental factors in rendering people vulnerable to the development of psychosis, and to the role of structural and functional brain abnormalities and dysregulation of neurotransmitter systems in the aetiology of psychosis.

Genetic hypothesis

The genetic hypothesis proposes that schizophrenia spectrum disorders arise primarily from an inherited vulnerability to psychosis. Results of twin, adoption and family studies show that a predisposition to schizophrenia spectrum disorders is genetically transmitted. Schizophrenia is about 80% heritable (Glatt, 2008; Rujescu & Karayiorgou, 2012; Sullivan et al., 2003). The lifetime risk for developing schizophrenia is proportional to the amount of shared genes. For monozygotic twins the risk is 48%; for dizygotic twins the risk is 17%; for children of an affected parent the risk is 13%; for grandchildren the risk is 5%; and for members of the general population the risk is about 1% (Ritsner & Gottesman, 2011). It is also probable that the vulnerability is polygenetically transmitted since the results of family studies cannot easily be accounted for by simpler models of genetic transmission.

Many candidate genes for schizophrenia have been investigated; some have been identified; and where significant associations between candidate genes and schizophrenia have been found, a growing number of consistent replication studies are available (Harrison, 2009; Ritsner & Gottesman, 2011). Candidate genes for which consistent evidence is available affect the growth and organization of neurones in the brain, the development of synapses, and glutamate and dopamine neurotransmission. Candidate genes include neuregulin 1 (NRG1) and disrupted-in-schizophrenia-1 (DISC1), which have multiple roles in brain development, synapse formation and synaptic signalling; catechol-O-methyltransferase (COMT), which regulates dopamine signalling in the frontal cortex; D-amino acid oxidase activator (DAOA) and dysbindin (DTNBP1), which affect glutamate signalling; and regulator of G-protein signalling 4 (RGS4) and calcineurin (PP3CC), which affect dopamine and glutamate neurotransmission. The mechanisms by which candidate genes give rise to the symptoms of schizophrenia through altering the structure and functioning of the nervous system are currently a focus for intensive research internationally (Bertram, 2008). Despite evidence for the role of genetic factors in schizophrenia, many people who develop schizophrenia have no relatives who suffer from the condition and some people who have a genetic predisposition to schizophrenia do not develop psychotic symptoms. It is therefore likely that environmental factors must also contribute to the development of schizophrenia spectrum disorders.

Neurodevelopmental hypothesis

The neurodevelopmental hypothesis proposes that pre- and peri-natal factors (often referred to as obstetric complications) interact with a genetic vulnerability to psychosis to give rise to atypical neuroanatomical development initially in infancy, and later in adolescence, and this culminates in the emergence of psychosis (Fatemi & Folsom, 2009; McGlashen & Hoffman, 2000; Murray & Lewis, 1987). In normal development synaptic connections within the brain increase up to 2 years, decline gradually before puberty and then decrease markedly in adolescence. This sharp decline is due to synaptic pruning which involves the elimination of superfluous synapses. It coincides with the emergence of sophisticated cognitive skills in early adolescence such as the capacity for abstract reasoning. According to the neurodevelopmental hypothesis, in schizophrenia the synaptic pruning process is excessive, leading to a fragmented brain and consequent psychotic symptoms (McGlashen & Hoffman, 2000). Excessive pruning is expected to have a more profound effect where fewer synapses were formed during early brain development due to an adverse intrauterine environment associated with obstetric complications.

Obstetric complications. A growing body of evidence supports the link between obstetric complications and schizophrenia (Ellman & Cannon, 2008; Matheson et al., 2011). Obstetric complications that have been investigated with reference to the neurodevelopmental hypothesis include maternal infection with influenza or rubella during early pregnancy, maternal malnutrition during early pregnancy, diabetes mellitus, smoking during pregnancy, bleeding during pregnancy, problematic labour or delivery, anoxia or asphyxia at birth, low birth weight, small head circumference, and congenital malformations. About 20–30% of patients with schizophrenia have a history of obstetric complications compared with 5–10% of the unaffected population. Lack of oxygen to the foetus – foetal hypoxia – is involved in many obstetric complications associated with psychosis. Cases with a history of obstetric complications show an earlier onset of schizophrenia and more pronounced neuroanatomical abnormalities as predicted by the neurodevelopmental hypothesis.

Neuroanatomy. In support of the neurodevelopmental hypothesis, five neuroanatomical abnormalities have consistently emerged in neuroimaging and post-mortem studies of schizophrenia (Bora et al., 2011; Girgis & Abi-Dargham, 2012; Keshavan et al., 2008; Stewart & Davis, 2008). The first abnormality is reduced overall brain volume and enlargement of the cerebral ventricles (particularly the left ventricle) associated with brain atrophy. The second abnormality concerns the reduced size of and activation within the frontal lobes. The dorsolateral prefrontal cortex is particularly affected, where there is also increased neuronal packing density. This abnormality may underpin cognitive deficits (IQ, executive function, attention and memory). The third abnormality is reduced temporal lobe volume including reductions in the size of the amygdala and hippocampus, structures which subserve emotional processing and memory. The fourth abnormality is decreased thalamic volume, and disorganization of the thalamocortical pathways. The thalamus plays a central role in attention, and in filtering and relaying information to various areas of the brain including the prefrontal cortex. The fifth abnormality is disorganization of white matter tracts and reduced connectivity between many areas of the brain. A detailed understanding of how these neuroanatomical abnormalities give rise to the symptoms of schizophrenia is a focus of ongoing research. Many of the structural brain abnormalities listed here precede the onset of psychosis and in some cases progress over the course of schizophrenia (Chan et al., 2011).

Psychophysiology. Results of studies which show that schizophrenia is associated with abnormalities in a number of psychophysiological indices reflective of abnormal neurobiological processes also support the neurodevelopmental hypothesis (Javitt et al., 2008; Keshavan et al., 2008). Sleep architecture assessed by EEG is abnormal in schizophrenia. Total sleep time and time during rapid eye movement (REM) sleep is reduced, as is REM sleep latency. Evoked potentials, which are detected with scalp electrodes during visual or auditory tasks, are abnormal in schizophrenia indicating impairments in neurobiological processes subserving visual and auditory perception and information processing. Eye movements, especially those involved in smooth pursuit tracking of a moving target, are abnormal in schizophrenia indicating impairments in neurobiological processes subserving oculomotor control. These evoked potential and eye movement abnormalities are highly heritable and present prior to the onset of acute psychosis.

Neurotransmitter dysregulation hypotheses

Neurotransmitter dysregulation hypotheses attribute psychotic symptoms to neurotransmission problems. Dysregulations of the dopaminergic and glutamatergic neurotransmission systems have been found in schizophrenia (Downar & Kapur, 2008; Girgis & Abi-Dargham, 2012). Genes which affect both of these neurotransmitter systems have been implicated in the aetiology of the condition, as was noted in the section on genetics.

Dopamine. The dopamine hypothesis arose from observations that medications such as chlorpromazine, which blocks dopamine D_2 receptors, alleviate psychotic symptoms, and amphetamines, which release dopamine, induce paranoid psychosis (Seeman, 2011). The original dopamine hypothesis which attributed psychotic symptoms to an excess of dopamine has inspired extensive research and the development of a range of antipsychotic medications for schizophrenia. Over time it has been supplanted by more sophisticated formulations. Available evidence indicates that over-activity of the mesolimbic dopamine pathway subserves positive symptoms (hallucinations and delusions) and under-activity of the mesocortical dopamine pathway subserves negative symptoms (blunted affect, alogia and avolition) and cognitive impairment (Downar & Kapur, 2008). Antipsychotic medication improves symptoms in a half to two-thirds of cases of psychosis (Dolder, 2008; Miyamoto et al., 2012). First generation antipsychotic medications such as chlorpromazine, which block dopamine D_2 receptors, alleviate positive symptoms in most cases, but have no effect on negative symptoms. In contrast, newer second generation antipsychotic medications, such as clozapine, block dopamine D_2 receptors in the mesolimbic but not the mesocortical pathway, and so alleviate positive symptoms and some negative symptoms.

Downar and Kapur (2008) have proposed the following explanation to link dysregulation of the dopamine system to psychotic symptoms. Dopamine is the neurotransmitter that gives neural networks associated with thoughts or perceptions salience. Over-activity of the mesolimbic dopamine pathway, probably results in many thoughts and perceptions being misinterpreted as highly salient or important. Thus, thoughts are misinterpreted as 'voices' and fleeting ideas that might otherwise be ignored are misinterpreted as being very important and so are developed into delusional belief systems. Antipsychotic medications that block dopamine D_2 receptors reduce this tendency to misinterpret unimportant perceptions and thoughts as highly salient. However, delusions that have already formed may need to be re-evaluated, which is what occurs in cognitive therapy. In contrast to the over-active mesolimbic dopamine pathway, the under-active mesocortical dopamine pathway reduces the salience with which certain perceptions, thoughts, feelings and motives are experienced. This accounts for the negative symptoms (blunted affect, alogia and avolition) and cognitive impairment which occurs in schizophrenia.

Glutamate. The glutamate hypothesis proposes that under-activity of N-methyl-D-aspartate (NMDA) glutamate receptors underpins the psychotic symptoms and cognitive impairment shown in schizophrenia (Downar & Kapur, 2008; Harrison, 2009; Lin et al., 2012; Marsman et al., 2013). Low glutamate levels have been found in the cerebrospinal fluid of people with schizophrenia. Drugs that reduce the efficiency of NMDA glutamate receptors (such as phencyclidine [PCP] or 'angel dust') induce psychotic symptoms. Drugs that increase the efficiency of NMDA glutamate receptors, such as glycine, alleviate psychotic symptoms, particularly negative symptoms. Glutamate is the major excitatory neurotransmitter in the central nervous system and NMDA receptors play a central role in attention, perception and cognition. Reduced glutamate activity in the prefrontal cortex may account for negative symptoms and cognitive impairment in schizophrenia. The NMDA glutamate receptor also plays an important role in the development of the nervous system, for example by influencing synaptic pruning, mentioned earlier in the section on neurodevelopment. Thus, dysfunction of NMDA glutamate receptors may account for some of the neuroanatomical abnormalities associated with schizophrenia.

From a theoretical perspective, the dopamine or glutamate theories are not sophisticated enough to account for the all of the symptoms of schizophrenia spectrum disorders and their response to antipsychotic medication. Contrary to predictions derived from the dopamine and glutamate hypotheses, antipsychotic medication does not immediately reduce symptoms, although it immediately affects neurotransmission. About a third of patients do not respond to antipsychotic medication. No antipsychotic medication eliminates all symptoms. Dopamine-2 antagonists primarily affect positive symptoms and have little impact on negative symptoms. Drugs that increase the efficiency of NMDA glutamate receptors primarily affect negative symptoms. Current neurotransmitter-based hypotheses will ultimately be replaced by more complex and integrated formulations involving a number of neurotransmission systems, which explain the anomalies listed earlier. Emerging findings on dysregulation of the GABA-ergic, serotonergic and nicotinic-cholinergic systems in schizophrenia will probably be incorporated into these more sophisticated theories (Girgis & Abi-Dargham, 2012).

Two-syndrome hypothesis

In an attempt to integrate results from diverse clinical, genetic and neurobiological studies, Crow (1985) proposed the two-syndrome hypothesis. He argued that a distinction may be made between type 1 schizophrenia, which is a genetically inherited disease marked by a dysregulation of the mesolimbic dopamine system and characterized by positive symptoms, and type 2 schizophrenia, which is a neurodevelopmental disorder arising from pre- or peri-natal insults resulting in neuroanatomical abnormalities, and which is marked by chronic negative symptoms. Type 1 schizophrenia, he proposed, has an acute onset, clear precipitants, predominantly positive symptoms, a good response to antipsychotic medication and good inter-episode adjustment. Poor pre-morbid functioning, an insidious onset, a chronic course, neuropsychological deficits, predominantly negative symptoms and a poor response to medication, he argued, characterize type 2 schizophrenia. The two-syndrome hypothesis fits a good proportion of available data but is probably an over-simplification, since many cases show aspects of both syndromes.

Neurotoxicity hypothesis

The neurotoxicity hypothesis proposes that an extended period of untreated psychosis causes neurobiological pathology. This hypothesis was inspired by the observation of better outcomes in cases with a short duration of psychosis. Systematic reviews show that evidence to support this hypothesis is mixed (e.g. Rund, 2014). However it is possible that there is a threshold minimum duration that must be reached for psychosis to have a neurotoxic effect, and in studies where this threshold was not reached, negative results occurred.

Psychological theories

Psychological theories, while not denying the role of biological factors, emphasize the critical role of psychological processes in the development and maintenance of psychotic symptoms. They also provide a rationale for psychological interventions.

Diathesis-stress or stress-vulnerability theory

Diathesis-stress or stress-vulnerability theories propose that psychosis occurs when neurobiologically vulnerable individuals are exposed to psychosocial stress (Rudnick & Lundberg, 2012; Walker et al., 2008; Zubin & Spring, 1977). Neurobiological vulnerability may be due to genetic and/or pre- and peri-natal factors that impact on the integrity of the central nervous system. A substantial body of research shows that the onset, course and severity of schizophrenia is associated with psychosocial stress and trauma (Ackner et al., 2013; Beards et al., 2013; Bebbington & Kuipers, 2008; Bonoldi et al., 2013; Gayer-Anderson & Morgan, 2013; Koutra et al., 2014; Matheson et al., 2013; Phillips et al., 2007; Read, 2010; Shevlin et al., 2008; Tandon et al., 2008b; Van Dam et al., 2012; Varese et al., 2012; Vassos et al., 2012; Walker et al., 2008). Physical and sexual child abuse, neglect, family violence and serious injury renders people vulnerable to the development of psychosis, and there is a dose–response relationship with greater levels of trauma being predictive of more severe symptoms. Low socio-economic status, migration to a new country and living in an urban rather than a rural setting all confer risk for the development of schizophrenia and all entail increased stressful demands on coping resources. The onset of schizophrenia is typically triggered by a build-up of stressful life events (illness, injury, bullying, life transitions, loss, etc.). Following the onset of schizophrenia, a number of stresses associated with the experience of psychosis and the response to it may compromise recovery. For most patients psychotic symptoms are intrinsically stressful, both as they are occurring and later during remission, when insight develops and patients realize that their psychotic symptoms were due to a major, often lifelong psychological disorder. Insight may lead to post-psychotic depression or PTSD symptoms. Highly emotional family responses to psychosis are very stressful; involve criticism and hostility on the one hand or excessive sympathy and emotional over-involvement on the other (referred to as expressed emotion); and have been shown in numerous studies to significantly reduce the time to relapse in patients stabilized on antipsychotic medication (Hooley, 2007). Social stresses resulting from psychosis including the loss of friendships, the development of a constricted lifestyle, the experience of stigma and consequent social isolation may all compromise recovery. Occupational impairment due to psychosis may lead to a reduction in financial resources and socio-economic status (often referred to as social drift), and recovery may be impeded by these factors. Higher levels of stress are associated with more severe psychotic symptoms.

HPA axis over-activity is a central aspect of the stress response. The HPA axis is a major part of the neuroendocrine system involving the hypothalamus, the pituitary gland located below the hypothalamus, and the adrenal glands (located on top of the kidneys) which controls stress reactions and other processes including the immune system. In schizophrenia dysregulation of the HPA axis has been found, for example, in studies of cortisol levels (Borges et al., 2013; Bradley & Dinan, 2010; Walker et al., 2008). Raised cortisol levels indicative of HPA axis hyperactivity is more common in first-episode psychosis. Heightened physiological arousal associated with HPA over-activity probably exacerbates psychotic symptoms, particularly positive symptoms such as hallucinations, delusions and thought disorder. Elevated cortisol levels arising from HPA axis over-activity compromises the efficiency of the immune system and increases vulnerability to cardiovascular and metabolic disease, common in schizophrenia. Such illnesses in turn are additional stresses that may maintain or exacerbate psychosis.

People with a genetic vulnerability to schizophrenia, when exposed to challenging stressful events, probably develop psychotic symptoms because they have difficulty using adaptive coping strategies. In a meta-analysis, O'Driscoll et al. (2014) found that people with schizophrenia tended not to use adaptive strategies such as emotion management and cognitive reappraisal. In contrast they report frequent use of maladaptive avoidant coping and dissociation.

Multi-modal interventions based on the stress-vulnerability model, involving antipsychotic medication and psychological therapies, aim to equip people with psychosis and their families with the resources to control psychotic symptoms, reduce environmental stress, enhance social support and work towards recovery. In a large meta-analysis of 106 studies of interventions for schizophrenia, Mojtabai et al. (1998) found that after an average of 17 months, the relapse rate for patients with schizophrenia who received psychological therapy plus medication was 20% lower than that of those who received medication only. The relapse rate in patients treated with medication only was 52% and that for patients treated with medication combined with psychological therapy was 32%. Family therapy, cognitive-behavioural therapy (CBT), cognitive remediation therapy, social skills training and vocational rehabilitation are among the range of evidence-based psychological interventions that have been developed to help people with psychosis and their families achieve these aims (Kern et al., 2009; Lieberman & Murray, 2012; Mueser & Jeste, 2008; Rubin et al., 2010; Tandon et al., 2010). A diathesis-stress model is presented in Figure 18.1.

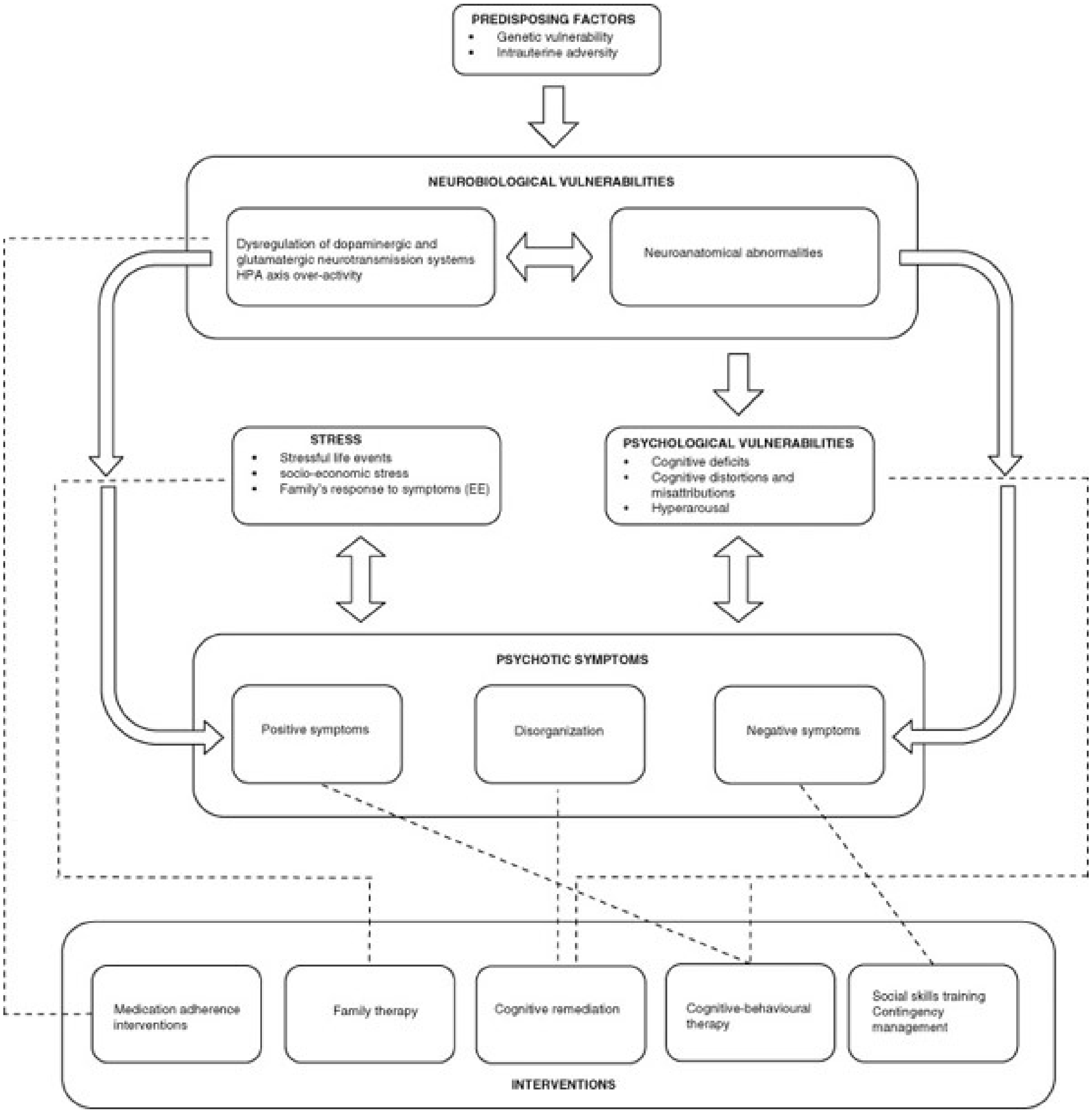


Figure 18.1 A diathesis-stress model of schizophrenia

Family theory and therapy

Family theory proposes that the family environment affects the course of psychosis and that interventions which optimize the family environment support recovery. About half of medicated clients with schizophrenia relapse, and relapse rates are higher in unsupportive or stressful family environments, characterized by high levels of expressed emotion which involves criticism, hostility or emotional over-involvement (Barrowclough & Lobban, 2008; Koutra et al., 2014). High levels of expressed emotion arise from family members' appraisals of the controllability of psychotic symptoms. Family members who express high levels of criticism or hostility tend to view patients as having a high degree of control over their psychotic symptoms and therefore hold patients responsible for their difficulties. In contrast, those who express high levels of emotional over-involvement tend to attribute patient's symptoms to uncontrollable factors and so view patients as helpless victims of a psychiatric illness. Low expressed emotion occurs where family members have an accurate understanding of psychosis and skills for managing the condition within a family context. The aim of psychoeducational family therapy is to reduce family stress and enhance family support so as to delay or prevent relapse and re-hospitalization, and also to promote recovery. This is achieved by helping family members understand psychosis within a stress-vulnerability framework and develop knowledge and skills to manage the condition. Psychoeducational family therapy may take a number of formats including therapy sessions with single families; therapy sessions with multiple families; group therapy sessions for relatives; or parallel group therapy sessions for relative and patient groups. Family therapy may be conducted in clinical settings or in patients' homes. Family therapy involves psychoeducation based on the stress-vulnerability models of psychosis with a view to helping families understand and manage psychotic symptoms, antipsychotic medication, related stresses, and early warning signs of relapse. Psychoeducational family therapy also helps families develop communication and problem-solving skills, reduce destructive expressions of anger and guilt, and promote self-care among non-symptomatic family members (Falloon et al., 1993; Kuipers et al., 2002; McFarlane, 2004). Meta-analyses have shown that compared with medication alone, multi-modal programmes including psychoeducational family therapy and medication lead to lower relapse and re-hospitalization rates, improved medication adherence, and improved adjustment and knowledge about psychosis of other family members (Lucksted et al., 2012; Pfammatter et al., 2006; Sin & Norman, 2013). Effective family therapy spans about 9 months, and longer, more intense programmes are more effective.

Cognitive theory and cognitive-behavioural therapy

Beck has proposed an integrative model to explain the development of symptoms in schizophrenia and then developed a cognitive-behavioural approach to address these symptoms based on this model (Beck et al., 2009). According to the model, when people with a neurobiological vulnerability to schizophrenia are exposed to stress, this increases their physiological arousal (HPA axis hyperactivity). There is a consequent reduction in their available cognitive resources. This increases their experience of psychotic symptoms. In early life, exposure to stressful events and trauma contribute to the development of schemas containing dysfunctional attitudes and beliefs, as well as cognitive biases to make inaccurate inferences. These are activated by exposure to stress in later life and inform the content of hallucinations and delusions. Exposure to stress and related hyperarousal in adulthood sets the scene for the development of positive symptoms, negative symptoms and disorganization. This is because at these times negative schemas and related cognitive biases are re-activated. Also, limited cognitive resources are available to check out the validity of inferences made about the environment and to manage day-to-day problem solving.

Within cognitive-behavioural therapy (CBT), patients are helped to view all of their symptoms as on a continuum with normal experience, as arising within the context of a stress-vulnerability model, and as being controllable through the use of cognitive-behavioural strategies and medication. A fundamental premise of CBT is that activating events give rise to negative automatic thoughts (informed by beliefs in negative schemas), which in turn affect mood, behaviour and the strength of beliefs within negative schemas.

From a CBT perspective, hallucinations are similar to negative automatic thoughts in depression or intrusive thoughts typical of obsessive-compulsive disorder. However, they are experienced as loud, external, ‘real’ and true because people with schizophrenia have a propensity for auditory imagery, a tendency to attribute unusual experiences to external factors (an external bias), and a tendency towards premature closure and deficient reality testing. That is, they hear their negative automatic thoughts as loud, attribute them to an external source, and do not check out the validity of their beliefs against alternatives, for example that these are their own loud thoughts, the content of which may not be valid. Auditory hallucinations are often incorporated into delusional systems that may maintain them. For example, a patient who hears a critical, omniscient controlling voice may develop paranoid delusions about being persecuted by the owner of the voice, which in turn may raise their arousal level and so make further hallucinations more likely. Patients may try to control voices by engaging in safety behaviours such as isolating themselves. These safety behaviours may reduce hallucinations in the short term, but in the long term may lead to stressful loneliness and this may cause further hallucinations. In CBT patients learn to identify and control stresses that trigger auditory hallucinations, to give up safety behaviours that maintain hallucinations and to re-appraise the source of their ‘voices’ and the content of what they say.

From a CBT perspective delusions are beliefs or inferences about events or experiences (including hallucinations) which in turn affect mood and behaviour, in the same way that negative automatic thoughts and dysfunctional beliefs affect mood and behaviour in depression and anxiety disorders. However, in schizophrenia delusions develop within the context of markedly reduced cognitive resources which limit patients' capacity to modify them. The content of delusions is influenced by dysfunctional attitudes and assumptions contained in negative schemas, by hallucinations and by cognitive biases. These include a strong egocentric or self-referential bias, a bias towards external causation of subjective experiences, and a bias towards indiscriminate attribution of extreme positive or negative intentions to others. Thus, a patient who experiences an unusual sensation on the skin may interpret this as due to aliens activating subcutaneous microchips to try to control their behaviour. Delusions are maintained by the belief that they accurately represent reality rather than being testable inferences; by a bias towards focusing on information that confirms the reality of delusions and ignoring disconfirmatory evidence; by engaging in safety-seeking behaviours that prevent the truth of delusions from being tested; and by cognitive resource–sparing strategies such as jumping to conclusions. In CBT patients are helped to collect evidence to test out the validity of their delusions starting with the least strongly held ones, and then to test out the validity of the non-delusional schemas that underpin these. In order to test out delusional beliefs patients are also helped to give up safety behaviours, such as locking the door and disconnecting the phone when strangers are outside their houses, in the case of people with persecutory delusions.

Within CBT, formal thought disorder (characterized by derailment, thought blocking, etc.) is conceptualized as a problematic thinking and speaking pattern that occurs due to limited cognitive capacity arising from stress within the context of a genetic vulnerability to schizophrenia. It is analogous to stuttering. The primary CBT intervention is to help patients recognize thought disorder when it occurs, the stressful situations in which it occurs, and the negative automatic thoughts that give rise to it. They are then helped to challenge these negative automatic thoughts and so reduce the stress associated with thought disorder.

Within CBT negative symptoms (blunting of affect, alogia and avolition) are conceptualized as ways of coping with the experience of having limited cognitive resources and so limited expectations for success or pleasure, and problematic delusional beliefs or hallucinations. If a patient finds it difficult to think clearly, expects little success or pleasure, believes that his actions are being controlled by others, and hears voices telling him that he is useless, then it is understandable that he will be relatively inactive. In CBT behavioural experiments are set up in which patients set goals, engage in activities and monitor their experience of pleasure, success, and self-control as they achieve goals.

Controlled trials and meta-analyses show that CBT has a small to moderate effect, particularly on delusions and hallucinations, in medicated patients whose positive symptoms are not fully controlled by antipsychotic medication (Jauhar et al., 2014; Pfammatter et al., 2006; Rector & Beck, 2012; Sarin et al., 2011; Tai & Turkington, 2009; Tandon et al., 2010). CBT without medication prevents the transition to psychosis in those at risk (Hutton & Taylor, 2014). Effective CBT spans about 9 months, and longer, more intense programmes are more effective.

Cognitive deficit theory and cognitive remediation

Cognitive deficit theory proposes that functional impairment in psychosis is due to in large part to cognitive deficits, and therefore ameliorating cognitive deficits through cognitive remediation training will improve functional impairment. Neuropsychological investigations have shown that about three-quarters of people with schizophrenia spectrum disorders show significant cognitive deficits (Bora & Murray, 2014; Bozikas & Andreou, 2011; Fusar-Poli et al., 2012; Harvey, 2013; Palmer et al., 2009; Savla et al., 2008). On average the overall IQ of people with schizophrenia is about 1 standard deviation below the normative mean, although there is considerable heterogeneity between persons and within cases over time. In schizophrenia most cognitive functions are affected including attention, memory, processing speed, cognitive flexibility, social cognition and executive function. Episodic memory and processing speed are the areas where greatest deficits occur. While about a quarter of people with schizophrenia show no cognitive deficits, a distinct sub-group show very severe general cognitive deficits (similar to Crow's [1985] type 2 schizophrenia or Kraepelin's [1899] dementia praecox), and the remainder show variable patterns of specific cognitive deficits (more in keeping with Bleuler's [1911] views on 'loosening of associations' and other specific deficits in schizophrenia). Many people with schizophrenia show mild pre-morbid cognitive deficits, followed by a steep decline in cognitive functioning during psychotic episodes, with some amelioration of cognitive deficits during remission and relative stability over the long term. In many cases cognitive deficits have a significant impact on social and occupational adjustment and illness management, and response to psychosocial interventions such as social skills training and supported employment (Kurtz, 2011). In schizophrenia, cognitive deficits are subserved by the many structural and functional neurobiological abnormalities mentioned in earlier sections.

Cognitive remediation or rehabilitation therapy is a set of cognitive drills which aims to help patients in remission enhance their attention, memory and executive functions or develop strategies for compensating for their cognitive deficits so that they can better achieve their recovery goals (Harvey, 2013; Tomás et al., 2010). In this type of treatment patients engage in regular computer-based or paper and pencil–based training tasks and puzzles for a number of times each week over a period of months. Specific tasks are deigned to improve specific targeted deficits such as memory. Task difficulty is designed so high success rates are achieved or so that errorless learning occurs. Over time patients build up their cognitive skills or develop strategies for compensating for them. With compensatory approaches, patients learn strategies or use memory prompts and other devices to make up for their cognitive deficits. Meta-analytic studies of the effectiveness of cognitive remediation report moderate effect sizes on cognitive test performance and indices of daily functioning. Significantly stronger effects on functioning occur when cognitive remediation therapy is provided with other psychiatric rehabilitation interventions (Kluwe-Schiavon et al., 2013; Medalia & Choi, 2009; Pfammatter et al., 2006; Tandon et al., 2010; Wykes et al., 2011).

Social skill and social cognition theory

Theories about social skills and social cognition propose that limitations in these areas account for much of the functional impairment seen in psychosis, and therefore social skills and social cognition training will ameliorate functional impairment. People with schizophrenia typically show deficits in accurately perceiving social situations, understanding and planning what to do in them, and then responding in a socially appropriate way. This in turn renders them vulnerable to engaging in stressful social interactions, to rejection, to avoidance of further social interaction, and to social isolation (Fett et al., 2011; Walker et al., 2004). People with psychosis show a deterioration in social relationships within the family, peer group, school, and workplace. Social cognition theory proposes that these social problems arise from failure to learn social skills during the normal course of development due to deficits in social cognition, specifically emotion perception, social perception, attributional style and theory of mind (Roberts & Penn, 2013). Social skills theory accepts this premise and in addition proposes that people with psychosis may also fail to use social skills that have been acquired because psychotic symptoms interfere with their use (Tenhula & Bellack, 2008). The aim of social skills training is to enhance social competence and so prevent social isolation. Social skills training is usually offered within a group therapy context, and involves the development of communication, conversation, assertiveness, medication management and social problem-solving skills. Modelling, rehearsal, shaping and reinforcement are used during the training process. The main emphasis is on practicing skills rather than talking about them (Bellack et al., 2004; Tenhula & Bellack, 2008). Meta-analyses show that compared with medication alone, multi-modal programmes which include social skills training and medication lead to significant improvements in social skills in people with psychosis (Kurtz & Mueser, 2008; Pfammatter et al. 2006). While social skills training emphasizes teaching concrete skills used in social interactions, social cognitive treatments aim to enhance recognition of emotions, theory of mind and attributional style. Social cognitive interventions are not yet well enough developed for use in routine clinical practice (Fiszdon & Reddy, 2012).

Prodromal hypothesis

The prodromal hypotheses argues that individuals at high risk for psychosis experience a prodromal set of symptoms, largely perceptual hypersensitivity and cognitive information processing deficits, which herald the onset of a psychotic episode. These prodromal symptoms are exacerbated by inferences and attributions made by the adolescent about the controllability and origins of their unusual prodromal perceptual and cognitive experiences, and these attributions increase arousal and accelerate the onset of the relapse. Cognitive-behavioural interventions made during the prodromal period which target attributions, or pharmacological interventions which target alterations in perceptual and information processing functions should, according to the theory, prevent relapse or reduce the severity of relapse (Birchwood, 1996; Birchwood et al., 2000; McGorry & Addington, 2012). Clinical studies have identified four stages in the development of a psychotic episode (Birchwood, 1996). In the first stage there is a feeling of a loss of control over cognitive and perceptual processes as a breakdown in perceptual selectivity occurs. This may be accompanied by a feeling of heightened awareness and mental efficiency and yet an inability to prevent internal and external events from invading consciousness. A sense of anxiety (a fear of going crazy) may occur at this point. In the second stage, depression characterized by low mood, low self-esteem, social withdrawal, poor school performance, and vegetative features such as sleep disruption occur in reaction to the deterioration of cognitive processes. Some youngsters try to cope with this deterioration by engaging in compulsive rituals that will give them a sense that they can impose order on what is an increasingly chaotic experience. In the third stage, disinhibition occurs and youngsters act impulsively, giving free reign to aggression, self-destruction, sexual urges, wishes to travel and so forth. This impulsivity may lead adolescents, particularly, to create social situations in which they become exposed to high levels of stimulation which in turn may precipitate the onset of florid psychotic symptoms. For example, becoming involved in fights, atypical sexual encounters, or impulsively travelling a long distance may all lead to complex unpredictable and highly stressful experiences, which will be perceived as all the more stressful because of the breakdown in perceptual selectivity. In the fourth stage, pre-psychotic thinking occurs, with frequent perceptual misinterpretations and delusional explanations given for them. Often these delusional explanations involve ideas of reference or paranoid ideation. Thus, as perceptual process become more dysfunctional, youngsters continue to try to make sense of their very unusual experiences by developing beliefs that are at variance with the culture and their usual belief systems. It appears that each patient has their own unique 'relapse signature' with specific experiences occurring in a unique order, but still following this broad four-stage model. Learning the pattern of this prodromal phase, and developing a relapse drill to manage the escalation of psychotic symptoms, can minimize deterioration and improve relapse management. The shorter the duration of the untreated illness, the less likely the patient is to relapse in the subsequent 2-year period (Birchwood, 1996; Birchwood et al., 2000; McGorry & Addington, 2012).

The recovery model

The recovery movement is being adopted as an over-arching framework for mental health services internationally (Amering & Schmolke, 2009; Roe & Davidson, 2008; Slade, 2009; Wykes & Drake, 2012). Kraepelin's (1899) conceptualization of schizophrenia as a neurological disorder with a chronic declining course led to the development of long-term institutional care and a reliance on physical treatments, including medication, as the main interventions for schizophrenia during much of the 20th century. This in turn led to the institutionalization of 'psychiatric patients' and the gradual erosion of their civil rights within institutions. It also led to their stigmatization and marginalization within society. A further consequence of Kraepelin's position was a reduced emphasis on the role of trauma and stress in the aetiology of schizophrenia and the value of psychosocial interventions in its treatment. It was in response to this position that the recovery model emerged at the end of the 20th century and the dawn of the new millennium.

The recovery movement initially arose from service user groups and mental health professionals involved in rehabilitation, but more recently has become adopted internationally as a best practice framework for service delivery. The model conceptualizes the recovery process as a personal journey from psychosis to mental health, and privileges the concepts of optimism, well-being, personal strengths, supportive relationships, collaboration, personal choice, adaptive coping, developing a meaningful life, civil rights, empowerment and inclusion. The recovery model has been inspired by longitudinal research which showed that chronic decline in schizophrenia was not inevitable (Girgis & Abi-Dargham, 2012; Häfner & van der Heiden, 2008), that trauma and stress play a role in the aetiology of schizophrenia (Bebbington & Kuipers, 2008; Matheson et al., 2013), and that psychosocial interventions have an important place in facilitating recovery from psychosis (Mojtabai et al., 1998; Pfammatter et al., 2006). The recovery movement embraced these research findings, placing a strong emphasis on professionals working collaboratively with service users to help them achieve their preferred goals. There was a shift in emphasis from institutional to community care, and from remediating patient deficits to fostering service-user strengths. There was also an emphasis on the civil rights of patients to make choices about their preferred treatments and to have an inclusive place in society. The recovery movement has created a context for the development of innovative community-based approaches to mental health service delivery, such as early intervention, the strengths-based case management model, assertive community treatment and vocational rehabilitation. While the recovery model and many related practices developed within the context of adult mental health services, they may be adapted for use with adolescents with psychosis. Early intervention is the most important development to emerge from the recovery model designed specifically for adolescents and young adults.

Early intervention for psychosis. Early intervention services for adolescents and young adults at risk for psychosis or during first-episode psychosis were pioneered by Pat McGorry in Melbourne, Australia (Jackson & McGorry, 2009; McGorry & Addington, 2012). These services, as originally conceived, are designed to meet the needs of young people at three different stages in the development of and recovery from early psychosis. Stage 1 services aim to detect young people at ultra-high risk for psychosis during the prodromal period and prevent its onset. Stage 2 services treat young people during their first episode of psychosis and aim to minimize the duration of untreated psychosis and the duration of first psychotic episodes. Stage 3 services aim to promote recovery during the critical 5-year period following diagnosis. In the first stage, specialist assessment instruments for detecting young people at high risk for psychosis such as those listed at the top of Table 18.7 are used. In all three stages of early intervention services case management, CBT, psychoeducational family therapy, and medication are the four key elements of treatment. With case management, the aim is to monitor symptoms, foster treatment adherence, and support the young person in practical ways which promote recovery and minimize the impact of psychosis on relationships, education, employment, financial security and accommodation stability. CBT and medication are used to help young people control psychotic symptoms. Psychoeducational family therapy aims to support families and help them support young people's recovery. There is growing evidence for the effectiveness of early intervention services for young people at high risk for psychosis and with first-episode psychosis (Álvarez-Jiménez et al., 2011; Bird et al., 2010; McFarlane et al., 2012; McGorry & Addington, 2012; Onwumere et al., 2011; Stafford et al., 2013; Van der Gaag et al., 2013; Zdanowicz et al., 2014).

Table 18.7 Psychometric instruments for the assessment of psychosis and related constructs in children and adolescents

Construct	*Instrument*	*Publication*	*Comments*
High-risk for psychosis	Comprehensive Assessment of At-Risk Mental States (CAARMS)	Yung, A., Yuen, H., McGorry, P., Phillips, L. J., Kelly, D., Dell'olio, M.,… Buckby, J. (2005). Mapping the onset of psychosis: The Comprehensive Assessment of At-Risk Mental States. *Australian and New Zealand Journal of Psychiatry*, *39*, 964–971. Miller, T., McGlashan, T., Rosen, J., Somjee, L., Markovich, P. J., Stein, K., & Woods,	Semi-structured interview with subscales for positive symptoms, cognitive change, emotional disturbance, negative symptoms, behavioural change, motor or physical changes, and general psychopathology

Structured Interview for Prodromal Syndromes (SIPS) Scale of Prodromal Symptoms (SOPS)	S. W. (2002). Prospective diagnosis of the initial prodrome for schizophrenia based on the Structured Interview for Prodromal Syndromes: Preliminary evidence of interrater reliability and predictive validity. *American Journal of Psychiatry, 159*, 863–865. Miller, T., McGlashan, T., Rosen, J., Cadenhead, K., Ventura, J., Mcfarlane, W.,… Woods, S. (2003). Prodromal assessment with the Structured Interview for Prodromal Syndromes and the Scale of Prodromal Symptoms: Predictive validity, interrater reliability, and training to reliability. *Schizophrenia Bulletin, 29*, 703–715.	Semi-structured interview which assesses prodromal symptoms, global assessment of functioning, DSM schizotypal personality disorder and family history of mental illness
Schedule for Affective Disorders and	Kaufman, J., Birmaher, B., Brent, D., et al. (1997). Schedule for Affective Disorders and Schizophrenia for School-Age	A structured clinical interview which covers mood and

Diagnosis	Schizophrenia for School Age Children – Present and Lifetime Version (K-SADS-PL)	Children – Present and Lifetime Version (K-SADS-PL): Initial reliability and validity data. *Journal of the American Academy of Child and Adolescent Psychiatry, 36*, 980–989.	psychotic disorders and permits diagnosis of DSM schizophrenia and other schizophrenia spectrum disorders
Change in psychiatric symptomatology	Children's Psychiatric Rating Scale (CPRS)	Fish, B. (1985). Children's Psychiatric Rating Scale. *Psychopharmacology Bulletin, 21*, 753–765. Spencer, E., Alpert, M., & Pouget, E. (1994). Scales for the assessment of neuroleptic response in schizophrenic children. Specific measures derived form the CPRS. *Psychopharmacology Bulletin, 30*, 199–202.	Rating scale for psychotic symptomatology in children
	Psychotic Symptom Rating Scales (PSYRATS)	Haddock, G., McCarron, J., Tarrier, N., & Faragher, E. (1999). Scales to measure dimensions of hallucinations and delusions: The Psychotic Symptom Rating Scales	A structured interview and set of rating scales for assessing severity of aspects of delusions and auditory hallucinations. The 11-item hallucination scale assesses frequency, intensity, duration disruption and beliefs about origin

	(PSYRATS). *Psychological Medicine, 29*, 879–889.	and control. The six-item delusions scales assesses preoccupation, distress, duration, conviction, intensity of distress and disruption.
Brief Psychiatric Rating Scale (BPRS)	Overall, J., & Gorman, D. (1988). Brief Psychiatric Rating Scale: Recent developments in ascertainment and scaling. *Psychopharmacology Bulletin, 24*, 97–99. Woerner, M., Mannuzza, S., & Kane, J. (1988). Anchoring the BPRS: An aid to improved reliability. *Psychopharmacology Bulletin, 24*, 112–117. Lukoff, D., Nuechterlein, K., & Ventura, J. (1986). Manual for expanded Brief Psychiatric Rating Scale (BRS). *Schizophrenia Bulletin, 12*, 594–602.	Assesses psychotic symptomatology on 24 seven-point scales and yields an overall index of psychopathology. This measure is sensitive to change and so good for measuring improvement, but poor for initial diagnosis.
Present State Examination Change Rating Scale	Tres, K., Bellenis, C., Brownlow, J., Livinston, G., & Leff, J. (1987). Present State Examination Change Rating Scale. *British*	Assess short-term changes in symptomatology

		Journal of Psychiatry, *150*, 201–207.	
Positive and negative symptoms in children	Positive and Negative Syndrome Scale for Children and Adolescents	Fields, J., Kay, S., Grosch, D., Alexander, G. et al (1991). *Positive and Negative Syndrome Scale for Children and Adolescents (KIDDIE-PANSS) interview guide.* Toronto: Multi-Health Systems Inc.	Rating scales for measuring positive and negative symptoms in children
Formal thought disorder in children	The Kiddie Formal Thought Disorder Rating Scales	Caplan,, R. Guthrie, D., Fish, B., Tanguay, P., & David, Lando, G. (1989). The Kiddie Formal Thought Disorder Rating Scales: Clinical assessment, reliability and validity. *Journal of the American Academy of Child and Adolescent Psychiatry*, *28*, 408–416.	Rating scales for measuring thought disorder in children
	Thought Disorder Index	Arboleda, C. & Holtzman, P. (1985). Thought disorder in children at risk for psychosis. *Archives of General Psychiatry*, *42*, 1004–1013.	Rating scales for measuring thought disorder in children
		Brett-Jones, J., Garety, P., & Hemsley, D.	Beliefs are elicited and patients give ratings for level of

Delusional experiences in adolescents and adults	Dimensional Ratings	(1987). Measuring delusional experiences: A method and its application. *British Journal of Clinical Psychology, 26*, 257–265.	conviction and preoccupation. The interviewer rates degree of interference in everyday life and reaction to hypothetical contradiction.
Hallucinations in adolescents and adults	Visual Analogue Scale	Hustig, H., & Hanfer, R. (1990). Persistent auditory hallucinations and their relationship to delusions and mood. *Journal of Nervous and Mental Disease, 178*, 264–267.	Visual analogue scale for assessing loudness, clarity, distress and distractibility are described in this paper
Insight in adolescents and adults	Insight Scale	Birchwood, M., Smith, J., Drury, V., Healy, J., & Slade, M. (1994). A self-report Insight Scale for psychosis: reliability, validity and sensitivity to change. *Acta Psychiatrica Scandinavica, 89*, 62–67.	Eight statements are scored on scales from 0–2. The items ask about need for medication, need for a doctor or hospitalization, acknowledgement of the illness, and re-labelling of psychotic experiences.
Favourable attitude to medication and compliance	Drug Attitudes Inventory	Hogan, T, Awad, A., & Eastwood, R. (1983). A self report scale predictive of drug compliance in schizophrenics: reliability and discriminative validity. *Psychological*	A 10-item self-report scale to measure attitudes to medication, predicative of compliance

		Medicine, 13, 177–183.	
Parents' knowledge of schizophrenia	Knowledge About Schizophrenia Interview (KASI)	Barrowclough, C., Tarrier, N., Watts, S. Vaughan, C., Bamrah, J., & Freeman, H. (1987). Assessing the functional value of relatives reported knowledge about schizophrenia. *British Journal of Psychiatry, 151*, 1–8.	Assess relatives' knowledge about diagnosis, symptomatology, aetiology, medication, prognosis, management
Parents' burden of care	Parental Stress	Fadden, G., Kupiers, I. & Bebbington, P. (1985). The burden of care: The impact of functional psychiatric illness on the patient's family. *British Journal of Psychiatry, 150*, 285–292.	Assesses the impact of schizophrenia on carers
Family problems for adolescents and adults	Family Questionnaire	Barrowclough, C., & Tarrier, N., (1987). A behavioural family intervention with a schizophrenic patient: A case study. *Behavioural Psychotherapy, 15*, 252–271.	A 50-item checklist of problem typically encountered in families with a psychotic member
Recovery	Recovery Context Inventory (RCI)	O'Brien, T. (2014). Recovery Context Inventory. Dublin: Eve. Available from Tom O'Brien <tobrien@eve.ie >	A multi-informant instrument which assesses the extent to which the individual's environment supports recovery

The strengths-based case management. The strengths-based case management model was developed by Charles Rapp in the Kansas School of Social Welfare. Within this model professionals work in partnership with clients and their families to help them recover (Rapp & Goscha, 2006, 2008). The model is guided by six principles. First, people with psychosis can recover and transform their lives. Second, the primary focus of clinical work is on strengths rather than deficits. Third, the community is a source of resources that may facilitate recovery. Fourth, case managers are guided by the service user's preferences and only implement plans with their approval. Fifth, the community is the primary setting for case management. Sixth, a strong therapeutic relationship between the case manager and service user is essential for recovery. There are four stages in the model: the engagement phase; strengths assessment; creating personal plans; and resource acquisition and disengagement. In the engagement phase the therapist forms a strong and respectful, collaborative therapeutic alliance with the client. Assessment focuses predominantly on evaluating clients' personal strengths and strengths they can access in their environments. Strengths are identified in domains of the daily living situation, finances, education or work, social support, health, leisure, recreational activities and spiritual or cultural activities. Strengths assessment forms the basis for the client and case manager setting goals and planning an agenda of things clients wish to achieve. To address this agenda, clients are helped to acquire the necessary community resources and supports for implementing their recovery plans which will increase their re-integration into community life. As clients' autonomy increases and is sustained, and as clients come to live more independently in the community, the process of gradual disengagement is negotiated. A series of empirical evaluations has shown that this strengths model, when implemented with adequate fidelity, is more effective than routine psychiatric services in promoting recovery from psychosis (Rapp & Goscha, 2008).

Assertive community treatment. Assertive community treatment was developed by a Leonard Stein and May Ann Test at the Mendota Mental Health Institute in Madison, Wisconsin, to address the challenges of deinstitutionalization. It is an integrated community mental health service delivery model in which hard-to-reach people with schizophrenia receive intensive, continuous individualized treatment, rehabilitation, and support services from community-based multi-disciplinary teams in which team members carry small case loads (DeLuca et al., 2008). Assertive community treatment aims to promote rehabilitation and recovery, and to prevent homelessness and unnecessary hospitalization. There is a major focus on helping service users develop the skills to manage everyday problems of living. All therapies and services are provided by team members and are not 'farmed out' to other professionals. Multi-modal treatment, in which evidence-based pharmacological and psychosocial therapies are provided in an integrated way, is central to this service delivery model. Thus, evidence-based medication algorithms, adherence programmes, psychoeducational family therapy, cognitive behaviour therapy, supported employment and so forth can be offered within the context of assertive community treatment programmes. Teams help service users to avoid crisis situations, and where necessary provide rapid response crisis intervention on a 24/7 basis to prevent unnecessary hospitalizations. Services are provided to clients in their homes or elsewhere in the community. Services are also provided on a time-unlimited basis. Team composition, training, adherence to assertive community treatment programme fidelity guidelines, and ongoing supervision is essential for the effectiveness of this approach to service delivery. In a meta-analysis of six randomized controlled trials, Coldwell and Bender (2007) found that assertive community treatment led to a 37% reduction in homelessness and a 26% improvement in psychiatric symptom severity compared with standard case management. In a systematic review of 25 randomized controlled trials, Bond et al. (2001) concluded that assertive community treatment substantially reduces psychiatric hospital use, increases housing stability, and moderately improves symptoms and subjective quality of life. It is highly successful in engaging service users in treatment. Bond et al. (2001) found that the more closely case management programs followed assertive community treatment principles, the better the outcomes. While assertive community treatment services are costly, these costs are offset by a reduction in hospital use by service users with a history of extensive hospital use. In meta-analysis of 44 studies involving over 6,000 service users, Ziguras and Stuart (2000) found that assertive community treatment was more effective than treatment as usual in reducing care costs and family burden, and in improving family satisfaction with services.

Vocational rehabilitation. Unemployment is a highly prevalent problem in schizophrenia spectrum disorders, which vocational rehabilitation aims to address (Becker, 2008). Effective vocational rehabilitation involves assessment, job searching, matching available jobs to client preferences, rapid placement in competitive employment (rather than sheltered workshops), and the provision of individualized vocational support and training while service users are in employment (rather than beforehand). Systematic reviews and meta-analyses consistently show that compared with traditional approaches, such as sheltered workshop placement, supported employment doubles the chances of engaging in long-term, paid, competitive employment (Becker, 2008; Cook & Razzano, 2005). Employed service users typically show improved self-esteem and better symptom control.

Assessment

In the management of cases of suspected childhood or adolescent psychosis, the first priority is to assess risk of self-harm or harm to others since prodromal impulsivity may lead to dangerous behaviour (Dutta & Harkavy-Friedman, 2012; Volavka et al., 2012). Risk of self-harm may be managed following the guidelines in Chapter 16. Violent behaviour requires careful assessment and management following guidelines given in Volavka et al., 2012, and

Haddock, 2013. The frequency, intensity and targets for violent behaviour, environmental triggers for violence, auditory hallucinations and paranoid delusional beliefs that may trigger violence, drug and alcohol use associated with violent behaviour, and non-adherence to medication regimes as a potential contributing factor to aggression all require careful assessment. This assessment may be used as a basis for formulating key factors precipitating and maintaining violence. A multi-modal approach involving psychological and pharmacological interventions may be taken to the acute management of violent episodes in young people with psychotic symptoms. Psychological interventions aim to distance young people from environmental factors that trigger violence (persons, places, situations, street drugs and alcohol, etc.) by offering them a quiet room in which to talk about their needs and concerns to a skilled clinician, while making it clear that other staff are available to support the clinician, should the young person become violent during the interview. Intramuscular benzodiazepines and antipsychotic medications are the main pharmacological interventions used for the acute management of violence.

The next priority is to clarify symptomatology. Careful interviewing using the diagnostic criteria set out in Table 18.2, and the K-SADS-PL, CAARMS, or SIPS and SOPS listed in Table 18.7 may be used. Standardized rating scales may also be useful in assessing symptom severity and making a diagnosis. Rating scales for the full constellation of psychotic symptomatology and for specific symptoms are listed in Table 18.7. Careful observation and a series of interviews with multiple informants over a number of sessions will typically be necessary to assess symptomatology. Multi-disciplinary involvement is particularly important in cases where youngsters present with psychotic features. From the earliest stages in these cases, teamwork between clinical psychology and psychiatry is recommended.

When making a differential diagnosis, it is useful to first determine if psychotic symptoms listed in Table 18.1 are present. Next consider symptom severity. Youngsters showing chronic eccentricities which fall just short of positive symptoms and thought disorder may meet the criteria for schizotypal personality disorder, although personality disorders are not usually diagnosed until after 18 years of age. Then consider if the symptoms constitute a single symptom diagnosis (e.g. delusional disorder or catatonia). Next consider if the symptoms are time limited (e.g. attenuated or at-risk psychotic syndrome, brief psychotic disorder or schizophreniform disorder). If the individual has insight into their symptoms and they occur very briefly, this indicates the presence of an attenuated or at-risk psychotic syndrome. Then consider affective symptoms. For schizoaffective disorder the criteria for schizophrenia must be met, and also those for a manic or depressive episode (described in Chapter 16). Depressive or bipolar disorders with psychotic features may be distinguished from schizophrenia spectrum disorders by taking account of the content of delusions and hallucinations, which are usually mood congruent in affective disorders. So in depression the delusions and hallucinations have depressive content, whereas in mania they have grandiose content. Also, the onset of schizophrenia tends to be insidious in many children and adolescents, whereas the onset of major depression with psychotic features tends to be acute. To rule out transient psychoses arising from the use of hallucinogenic drugs such as Ecstasy or LSD, extended periods of observation and a referral for toxicological tests is appropriate. Autism spectrum disorder (ASD) may be distinguished from schizophrenia by the absence of sustained delusions and hallucinations and the by the child's inability to engage in reciprocal communication. Referral for an EEG can rule out temporal lobe epilepsy as a cause of hallucinations, although in small proportion of cases co-morbid schizophrenia and seizure disorder occurs. Usually hallucinations associated with temporal lobe epilepsy are visual, whereas those associated with schizophrenia spectrum disorders are auditory. Referral for a thorough paediatric medical assessment is appropriate to rule out possible organic factors, for example Wilson's disease, as the source of psychotic symptoms.

Specific categories of predisposing, precipitating, maintaining and protective factors deserving assessment where psychotic features are the central concern are set out in Figure 18.2. The items in the figure are based on extensive literature reviews (American Academy of Child and Adolescent Psychiatry, 2013b; French et al., 2010; Hollis, 2008; Lieberman & Murray, 2012; Mueser & Jeste, 2008; Remschmidt, 2001; Tiffin & Welsh, 2013; Weinberger & Harrison, 2011). These areas should be covered within the context of the assessment protocol set out in Chapter 4.

Predisposing factors

Both personal and contextual factors may predispose young people to developing psychotic symptoms. A genetic vulnerability as indicated by a family history of schizophrenia spectrum disorder may predispose young people to developing psychosis. They may also develop a vulnerability to psychosis as a result of intrauterine adversity as indicated by obstetric complications or maternal illness, particularly viral infection during pregnancy. Dysregulation of the dopaminergic and glutamatergic systems and neuroanatomical abnormalities may also predispose children and adolescents to developing psychosis although these neurobiological factors are not assessed as a routine part of evaluation. Psychological predisposing factors include insidious onset; schizotypy; trait anxiety; external locus of control; and cognitive deficits in attention, memory, processing speed, cognitive flexibility, social cognition and executive function. At a contextual level a history of early adversity, child abuse, and family disorganization may predispose young people to developing schizophrenia spectrum disorders.

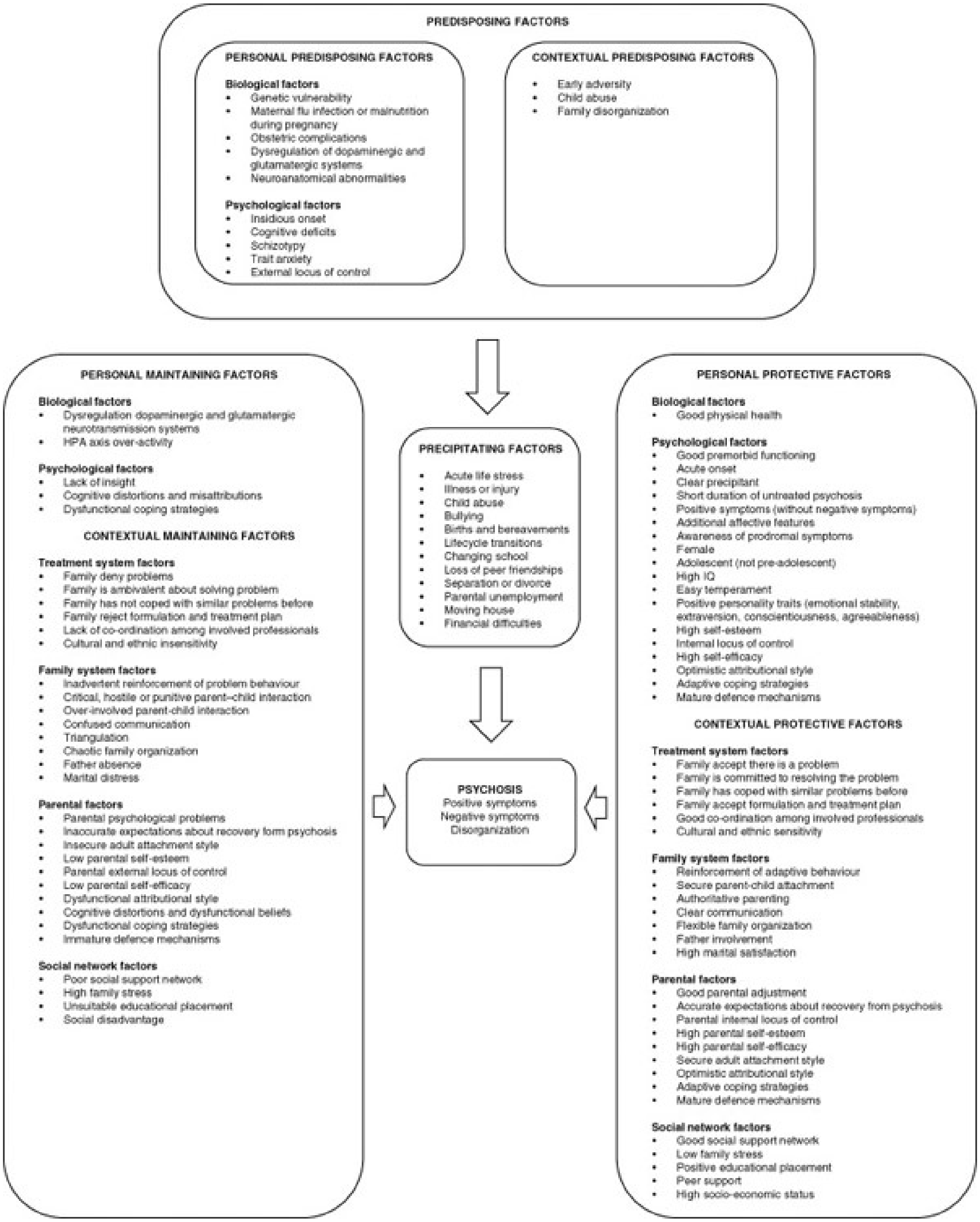


Figure 18.2 Factors to take into account in the assessment of psychosis

Precipitating factors

Psychosis may have an acute onset or an insidious onset, and prognosis in the former case is better. The onset of a psychotic episode may be precipitated by a build up of stressful life events or the occurrence of lifecycle transitions. Examples of stressful events that may precipitate psychotic episodes include personal or family illness or injury, child abuse or bullying. Examples of lifecycle transitions which individually or as part of a build-up of life stress may precipitate psychosis include puberty, having a sibling leave home, birth of a sibling, bereavements within the family, parental separation, moving house, changing schools, losing friends, parental unemployment or increased financial hardship within the family. These events place excessive demands on the young people's coping resources, increase their experience of distress and physiological arousal, and this may lead to the emergence of psychotic symptoms.

Maintaining factors

Psychotic symptoms may be maintained by a range of personal and contextual factors. At a neurobiological level dysregulation of the dopaminergic and glutamatergic neurotransmission systems and physiological arousal involving HPA axis over-activity may maintain psychotic symptoms. Delusions and hallucinations are more likely to occur during periods of high physiological arousal. Individuals may show negative symptoms involving inactivity as a strategy for reducing physiological arousal. Psychological predisposing factors include lack of insight into the non-veridical nature of delusions and hallucinations, cognitive distortions, misattributions and the use of dysfunctional coping strategies. For example, delusions and related negative emotional experiences may be maintained through cognitive distortions that involve selective misinterpretation of stimuli in a self-referent way, such as interpreting the sound of a car horn as an enemy's signal that they are about to attack. Hallucination-related distress is maintained through negative interpretations of hallucinations, for example interpreting voices as belonging to the devil and as having the power to force one to behave in distressing ways. Dysfunctional coping strategies such as social withdrawal may maintain negative symptoms such as inactivity and poverty of speech.

With respect to contextual maintaining factors, patterns of interaction that involve criticism, over-involvement and unclear communication may maintain schizophrenia. Criticism and unclear communication may be very stressful and lead to hyperarousal, making it more likely that psychotic symptoms will occur. Over-involved interaction may also be stressful or entail inadvertent reinforcement of psychotic symptoms. These types of interactions are probably more likely to occur in chaotically organized families, in families where there is marital distress, and in families where the father is relatively uninvolved. Such communication may also occur in families where the adolescent is triangulated into parental conflict, with one parent taking an over-involved stance with respect to the adolescent and the other adopting a critical position.

Such patterns of parenting and family organization may be partially maintained by parents' personal experience of personal psychological difficulties. Where parents have insecure adult attachment styles, low self-esteem, low self-efficacy, an external locus of control, immature defences and poor coping strategies their resourcefulness in managing their children's difficulties may be compromised. Parents may also become involved in problem-maintaining interactions with their adolescents if they have inaccurate knowledge about psychosis and are unaware of the importance of the family in creating a low-stress and high-support environment to aid recovery and prevent relapse.

Psychotic symptoms may also be maintained by high levels of stress, limited support and social disadvantage within the family's wider social system, since these features may deplete parents' and sibling's personal resources for dealing constructively with the adolescent's condition. Educational placements which are poorly resourced and where teaching staff have little time to devote to home–school liaison meetings may also maintain psychotic symptoms, especially if teachers interact with the adolescent in critical or over-involved ways.

Within the treatment system, a lack of co-ordination and clear communication among involved professionals including family physicians, paediatricians, psychiatrists, nurses, teachers, psychologists and so forth may maintain children's psychotic problems. It is not unusual for various members of the professional network to offer conflicting opinions and advice on the nature and management of psychosis to adolescents and their families. These may range from viewing the child as ill and requiring medication only for the management of the illness to seeing the child as healthy but deviant and deserving punitive management. Where co-operation problems between families and treatment teams develop, and families deny the existence of the problems, the validity of the diagnosis and formulation, or the appropriateness of the treatment programme, the child's difficulties may persist. Treatment systems that are not sensitive to the cultural and ethnic beliefs and values of the young person's family system may maintain psychotic symptoms by inhibiting engagement or promoting dropout from treatment and preventing the development of a good working alliance between the treatment team, the youngster and his or her family. Parents' lack of experience in dealing with similar problems in the past is a further factor that may compromise their capacity to work co-operatively with the treatment team and so may contribute to the maintenance of the child's difficulties.

Protective factors

The probability that a treatment programme will be effective is influenced by a variety of personal and contextual protective factors. It is important that these be assessed and included in the later formulation, since it is protective factors that usually serve as the foundation for therapeutic change. Good pre-morbid functioning, an acute onset, a clear precipitant and awareness or insight into prodromal symptoms are all associated with a better outcome. In terms of good pre-morbid functioning, a high IQ, an easy temperament, positive personality traits (emotional stability, extraversion, conscientiousness and agreeableness), high self-esteem, an internal locus of control, high self-efficacy, an optimistic attributional style, and physical health and fitness are all important personal protective factors. Other important personal protective factors include mature defence mechanisms and functional coping strategies, particularly good problem-solving skills and a capacity to make and maintain friendships. A better outcome occurs for females rather than males and for adolescents rather than children. If there are additional affective features or a family history of affective disorders rather than schizophrenia spectrum disorders there is a better prognosis.

Within the family, secure parent–child attachment and authoritative parenting where parents reinforce adaptive behaviour are central protective factors, particularly if they occur within the context of a flexible family structure in which there is clear communication and high marital satisfaction and both parents share the day-to-day tasks of childcare.

Good parental adjustment and accurate knowledge and expectations about recovery from psychosis are also a protective factors. Where parents have an internal locus of control, high self-efficacy, high self-esteem, a secure adult attachment style, an optimistic attributional style, mature defences and functional coping strategies they are better resourced to manage their children's difficulties constructively.

Within the broader social network, high levels of support, low levels of stress and membership of a high socio-economic group are all protective factors for adolescents with psychosis. Where families are embedded in social networks that provide a high level of support and place few stressful demands on family members, then it is less likely that parents' and children's resources for dealing with psychosis will become depleted. A well-resourced educational placement may also be viewed as a protective factor. Educational placements where teachers have sufficient time and flexibility to attend home–school liaison meetings if invited to do so contribute to positive outcomes for adolescents with schizophrenia.

Within the treatment system, co-operative working relationships between the treatment team and the family and good co-ordination of multi-professional input are protective factors. Treatment systems that are sensitive to the cultural and ethnic beliefs and values of the young person's family are more likely help families engage with and remain in treatment and foster the development of a good working alliance. Families are more likely to benefit from treatment when they accept the formulation of the problem given by the treatment team and are committed to working with the team to resolve it. Where families have successfully faced similar problems before, then they are more likely to benefit from treatment and in this sense previous experience with similar problems is a protective factor.

Formulation

The formulation should specify how specific precipitating factors triggered the onset of the psychotic episode and the predisposing factors that rendered the young person vulnerable to developing the condition or key symptoms. The way in which the condition and its symptoms are maintained by patterns of interaction and intrapsychic factors, particularly cognitive distortions and attributions, should be specified. Protective factors which have a bearing on prognosis should also be mentioned.

Treatment

The approach to management of psychosis set out here is based on a view of psychosis as a recurrent episodic condition, which is currently only partially understood, and for which there is no cure or definitive solution. However, the view taken here is recovery-oriented and optimistic. Pharmacological and psychological treatments may alter the course of psychosis by shortening active periods and lengthening periods of remission and reducing the distress caused by psychotic symptoms so that a young person with a schizophrenia spectrum disorder may lead as normal a lifestyle as possible.

When children or adolescents present with prodromal symptoms or first-episode psychosis, or are referred for relapse management, it is best practice to intervene immediately to reduce the duration of untreated psychosis. Early intervention is important, since if left untreated delusional belief systems and patterns of dysfunctional behaviour involving negative symptoms may become entrenched. Furthermore, patterns of family interaction may evolve which maintain these symptoms. The briefer the duration of untreated psychosis, the better the outcome. Multi-modal treatment should include both pharmacological and psychosocial interventions. Psychosocial intervention should be multi-systemic and target the young person, the family and if appropriate other involved systems including the school. Treatment should aim to ameliorate psychotic symptoms, reduce distress associated with them and support the adolescent and family in their management of the condition and promotion of recovery.

Treatment for young people with psychosis should include the following components (American Academy of Child and Adolescent Psychiatry, 2013b; Buchanan et al., 2010; Dixon et al., 2010; French et al., 2010; Gaebel et al., 2011; Hollis, 2008; Lieberman & Murray, 2012; Mueser & Jeste, 2008; NICE, 2013e; Remschmidt, 2001; Tiffin & Welsh, 2013; Weinberger & Harrison, 2011):

- Recovery-oriented case management to co-ordinate treatment and promote a return to as normal a life as possible.
- Pharmacological therapy to control positive symptoms including delusions and hallucinations.
- Individual or group-based cognitive-behavioural therapy focused on helping the adolescent understand the disorder, cope with its symptoms and control environmental stress levels. Preliminary cognitive remediation and social skill training may be offered for cases where significant cognitive or social skills deficits are present and make it difficult for young people to engage with CBT.
- Family intervention to help parents and siblings understand the concept of psychosis

and interact with the adolescent in a way that is maximally supportive and minimally stressful. This may include group work for parents to provide them with education and support, and training in using contingency management to help young people overcome negative symptoms.

Unfortunately most of the research on treatment, which informs the following discussion, has been conducted with adults. Until trials with children and adolescents have been reported, treatment of younger cases is guided by the results of studies conducted on adult populations.

Recovery-oriented case management

For each case, a coherent system for case management should be put in place. The aim of case management is to co-ordinate treatment and help the young person life as normal a life as possible. The membership of the young person's multi-disciplinary mental health team should be made clear to the young person and the family. There should be clarity about which team members are relatively permanent and will provide long-term continuity of care, and which members are more transitory and will be with the team for briefer periods (for example, psychology interns or registrars in psychiatry on 6-month rotations). The young person and family should be offered a schedule of appointments with a clear indication of whom to contact about these, and contact arrangements for managing out-of-hours crises. If a key worker system is being used, there should be no ambiguity about who the key worker is and how they may be contacted. The team should adopt an optimistic recovery-oriented approach and offer an integrated multi-modal intervention program to promote recovery. This should include antipsychotic medication and support in maximizing medication adherence; cognitive-behavioural therapy for young people; where there are significant cognitive or social skills deficits, cognitive remediation and social skills training to address these deficits; and psychoeducational family therapy. As part of case management, the team should assess the need for practical recovery-oriented supports which would help the young person live as normal a life as possible. These may include help with solving problems concerning education, employment, accommodation, financial difficulties, leisure activities and so forth.

Pharmacological treatment

The most widely used and most effective pharmacological treatments for psychosis are dopamine-2 antagonists. These are usually prescribed and monitored by a psychiatrist. A distinction is made between first- and second-generation, or typical and atypical antipsychotic medications. Both are dopamine-2 antagonists. Treatment with second-generation antipsychotic medications such as risperidone, olanzapine and clozapine is currently the first-line approach to pharmacological intervention for psychotic conditions, although clozapine is reserved for treatment refractory cases due to its problematic side effects detailed later (Kutscher, 2008; Miyamoto et al., 2012; Tandon et al., 2010). Both first- and second-generation antipsychotics are equally effective, but they differ in their side effect profiles (Dolder, 2008). With regard to effectiveness, about one-half to two-thirds of patients respond to antipsychotics, and their main effects are on positive symptoms, with limited effects on negative symptoms and cognitive impairment. Rates of extrapyramidal side effects (such as parkinsonism) and tardive dyskinesia (an irreversible neurological movement disorder) are lower for second-generation antipsychotic medication. However, for second-generation antipsychotics, obesity, raised cholesterol and risk of diabetes are more common. Ideally the lowest possible dose of medication should be used to reduce side effects and enhance quality of life. Clozapine is an extremely effective second-generation antipsychotic and has a positive impact on suicidal and aggressive behaviour as well as psychotic symptoms (Sajatovic et al., 2008). However, because of its dangerous side effects, clozapine is reserved for use in treatment refractory cases or those were there are high risks of suicide or aggression. Clozapine may cause a severe reduction in white blood cell count (agranulocytosis) and this can result in severe infections which may be fatal. For patients on clozapine, routine monitoring of white blood cell count is best practice. Typically patients with schizophrenia continue to take antipsychotic medication throughout their lives. Where patients show low adherence in taking oral medication daily, they may be administered long-lasting, slow-release depot injections (Cunningham-Owens & Johnstone, 2009; Leucht et al., 2011).

For a considerable proportion of people with a diagnosis of schizophrenia, residual positive symptoms including hallucinations and delusions persist. Many patients on medication, while not actively psychotic, develop negative symptoms including restricted affect, limited speech and a lack of goal-directed behaviour. Despite pharmacological treatment up to 80% of cases relapse within 2–5 years especially if low dosages of medication are used to minimize side-effects (Tarrier, 1994). For these reasons individual and family-based psychological interventions are particularly important for young people with psychosis.

Cognitive-behavioural treatment

CBT for psychosis aims to help young people manage stressful situations that might exacerbate psychotic symptoms; to minimize distress associated with hallucinations and other psychotic experiences; to reduce the negative impact of delusional beliefs; to manage negative symptoms; and to prevent relapse. CBT for psychosis has been well described in treatment manuals (Beck et al., 2009; Chadwick et al., 1996; French et al., 2010; Gumley & Schwannauer, 2006; Hagen et al., 2011; Kingdon & Turkington, 2005; Morrison et al., 2004; Steel, 2013). CBT may also be used to help young people with psychosis manage co-morbid anxiety disorders, substance use and depression following practices described in Chapters 12, 15 and 16, respectively. CBT should span about six months with weekly sessions for 3–4 months, followed by fortnightly sessions. Psychotic experiences should be conceptualized as being on a continuum with normal experience and normalized. An optimistic, recovery-oriented approach should be adopted.

CBT for psychosis begins with a thorough fine-grained ABC contextual assessment of each specific symptom, taking account of antecedent activating events (As); beliefs and associated cognitive distortions and misattributions (Bs); and resultant distressing emotional responses or maladaptive behavioural consequences (Cs). During this fine-grained, cognitive-behavioural analysis, 10-point visual analogue scales are a particularly useful way to assess the magnitude of beliefs (Bs) and consequences (Cs) arising from these beliefs. Beliefs about voices heard as auditory hallucinations (which in cognitive-behavioural terms may be defined as activating events) may be assessed as varying along a number of dimensions. Voices may be construed as benign or malevolent; controlling or impotent; all-knowing or knowing little about the person; and the person may feel compelled to do what the voice says or not. Delusions (which in cognitive-behavioural terms are defined as beliefs) may vary in the degree of conviction with which they are held (from great certainty to little certainty) and preoccupation (the amount of time spent thinking about the belief). For both hallucinations and delusions, the amount of emotional distress they cause in terms of anxiety, depression, anger and so forth may be rated on 10-point visual analogue scales. So also may behavioural responses such as avoidance, level of activity or aggression.

A variety of cognitive and behavioural methods have been developed to help manage psychotic symptoms. These include stimulus control methods for altering situations that trigger symptoms, cognitive methods for addressing hallucinations and delusional belief systems, and coping skills training. It is useful when engaging young people with psychosis in CBT to determine which psychotic symptoms cause the most distress, and offer to help exploring ways of reducing this distress. An extended period of 2–6 sessions may be required to establish sufficient understanding and trust to introduce challenges to the young person's psychotic belief systems. In early sessions with young people who have little or no insight into the non-veridical nature of their hallucinations and delusions, it may jeopardize the engagement process to offer psychoeducation about diathesis-stress models of psychosis. This type of intervention is probably best left until a strong therapeutic alliance has been developed and the young person has made some progress in modifying their psychotic symptoms and the distress associated with them.

Stimulus control. With stimulus control methods, identify specific situations which precipitate distressing hallucinations or intense preoccupation with distressing delusions. Isolate aspects of these situations which trigger greatest distress. Finally, use a systematic problem-solving approach, described in Table 4.3 in Chapter 4, to develop strategies to manage these triggers and reduce distress in these situations. That is, brainstorm all possible solutions; identify pros and cons of each of these; select the most promising solution and try it;

evaluate outcome; and modify to improve its effectiveness if necessary. Where anxiety or hyperarousal due to perceived external environmental pressures is associated with distressing hallucinations, systematic desensitization to perceived environmental pressures may be used to eliminate the antecedent (arousal) which precipitates hallucinations. To do this, establish the level of distress (on 10-point visual analogue scales) associated with hallucinations that occur in a range of triggering situations. Arrange these triggering situations into a hierarchy from the least to most distressing. Train the young person in relaxation skills, and desensitize them to each item in the hierarchy starting with the least distressing, using systematic desensitization procedures described in Chapter 12. Where high levels of auditory stimulation precipitate hallucinations, the use of earplugs or calming music listened to through headphones from a personal stereo may reduce this, thus reducing the frequency of hallucinations.

Cognitive interventions. Cognitive interventions for auditory hallucinations and delusions are premised on the assumption that young people become distressed because of maladaptive beliefs they hold about internal stimuli (auditory hallucinations) or external stimuli (delusion-eliciting events). The thrust of therapy is to help young people weaken their conviction that maladaptive beliefs are true by accepting that their beliefs are inferences rather than facts and then testing the validity of these inferences by examining evidence for and against them within the context of a strong therapeutic relationship.

Cognitive interventions for distressing auditory hallucinations involve helping young people test the validity of their maladaptive beliefs about distressing voices which they hear. Beliefs that voices are powerful and that one must comply with them or face dire consequences are typically the most distressing. Maladaptive beliefs about the power of voices and the necessity of complying with them may be tested out by inviting young people to not comply with them and notice that the dire consequences do not in fact occur. Such interventions increase self-efficacy and promote an internal locus of control. Once maladaptive beliefs in the power of distressing voices has been weakened, it becomes easier for young people to challenge the identity or source of distressing voices. For example, it is easier to accept that the voice is not that of the devil if the voice cannot control the young person's every move. Before and after this procedure, ask the young person to rate the level of distress they experience when they hear their voices using a 10-point visual analogue scale. At the conclusion of the intervention, invite the young person to reflect on how their level of distress changed as a result of examining the evidence for the veracity of their beliefs about the power, necessity to comply, and source of the voice. Repeated use of this procedure will help them gradually to appraise their auditory hallucinations as less distressing.

Cognitive interventions for reducing distress associated with delusional beliefs involve eliciting these beliefs and creating a hierarchy progressing from beliefs held with least conviction to those held with greatest conviction. A useful method for creating these hierarchies is to ask what the young person believes their response would be to a hypothetical contradiction. For example, ‘How would you respond if the head of the TV station assured us both that no special messages were being sent to you through your TV?’ In setting up these hierarchies, the conviction with which delusional beliefs are held may be rated on 10-point visual analogue scales, and then sequenced from those with lowest to highest conviction ratings. Invite the young person to begin by discussing the least strongly held delusional belief. Help the young person to list observations that support the belief. Then invite the young person to list as many observations and arguments as possible against the delusional belief. Help the young person to expand this list as much as possible. Then invite the young person to consider the evidence for and against the delusional belief. Before and after this procedure, ask the young person to rate the level of conviction with which they hold the delusional belief using a 10-point visual analogue scale. At the conclusion of the intervention, invite the young person to reflect on how their conviction in the delusional belief changed as a result of examining the evidence for its veracity, and how any lessening of conviction in the veracity of delusions is associated with a reduction in distress rated on a 10-point visual analogue scale.

Coping skills training. With coping skills training the aim is to help the young person develop confidence in using effective strategies to cope with specific psychotic symptoms. The patient is invited to make a list of distressing and frequently occurring psychotic symptoms such as hearing distressing voices or becoming preoccupied with distressing delusional beliefs. One symptom at a time is selected as a focus for coping skills training. The selected symptom must be one for which the young person is currently using a positive coping strategy such as those listed in Table 18.8. With appropriate planning and agreement, using the typical antecedent for the occurrence of the symptom, the young person is encouraged to demonstrate the symptom and the coping strategy. The young person is then invited to rate the effectiveness of the strategy in controlling the symptom on a 10-point scale. This procedure is repeated until the young person can face the situation that elicits the symptom and cope with it, with ease. When a coping strategy is difficult to practice within a session, the patient may practice it in imagination and then practice it in vivo as homework. This may be done under parental supervision. Young people or their parents may be invited to keep a record of strategy use and its effectiveness as homework to be reviewed in subsequent sessions. Where possible, two strategies should be developed for managing each symptom. For example, attention switching and relaxation could both be used to reduce auditory hallucinations.

CBT-based relapse prevention. In CBT, relapse prevention involves helping young people learn their cognitive, affective and behavioural relapse signatures and then develop relapse drills to manage potential relapse situations (Birchwood et al., 2000; Gumley & Schwannauer, 2006). Difficulty concentrating and planning, strange sensations, and thought content that verges on the delusional are common cognitive changes before a relapse. Increased negative mood states such as anxiety, depression and irritability, or increased feelings of religiosity and powerfulness are common emotional precursors of a psychotic episode. Difficulty planning, following routines, sleeping, eating, managing personal hygiene and maintaining normal conversations are typical behavioural changes that occur before a relapse. To deal with relapses, young people may be invited to write down their relapse drill which includes (1) a detailed description of the cognitive, emotional and behavioural elements of their personal relapse signature; (2) the specific strategies that they will use to cope with prodromal symptoms; and (3) phone numbers of key workers they can call to help them implement their strategy. Useful coping strategies include withdrawing from stressful situations, practicing relaxation exercise, distracting oneself from upsetting thoughts by listening to music, challenging negative automatic thoughts, using problem-solving skills to reduce stress, or obtaining support from a family member or key worker.

Table 18.8 Positive and negative coping strategies used to manage psychotic symptoms

Sensory strategies	+	Reducing sensory input by, for example, going somewhere less noisy and stimulating
Cognitive strategies	+	Distraction or attention switching
	+	Focusing or attention narrowing
	+	Self-instruction to act a particular way
	+	Self-instruction to reattribute the cause of a particular event
	−	Engaging in conversation with hallucinated voices
Behaviour strategies	+	Increase physical activity levels by for example exercising
	+	Increase social activity level by for example talking to someone
	+	Modulating social activity level by temporary break from social interaction
	+	Testing out beliefs by checking if the facts fit with beliefs about causes or interpretations of events
	−	Social isolation and withdrawal
	−	Directing aggression towards self or others
Physiological strategies	+	Using relaxation skills to reduce tension
	−	Using drugs or alcohol to reduce tension

Note: Adapted from Tarrier (1994).

Lack of insight, lack of syndrome stability and a ‘sealing over’ recovery style may prevent young people from learning and using their relapse signatures to implement relapse drills to prevent relapses or minimize their impact (Birchwood et al., 2000). With lack of insight, the young person does not conceptualize their psychotic episode as unreal. In these instances, it may be helpful to engage the family in learning the relapse signature and drill. With syndrome instability, there is great variability in the onset of each psychotic episode because of the person’s emotional reaction to it, or because of behavioural reactions such as engaging in co-morbid substance misuse. In these instances each relapse is viewed as an opportunity to learn more about the relapse signature and to better manage emotional and behavioural reactions to it. With a ‘sealing over’ recovery style, the young person views the psychotic experience as alien to them, and when it is over the young person isolates the experience from their identity in a rigid, uncompromising way. The clinical challenge is to form a strong enough therapeutic alliance in such cases to help young people develop a recovery style characterized by integration. Here young people see a continuity between their psychological functioning and identity before, during and after the psychotic episode. They assume personal responsibility for understanding and managing the changes that occur in psychological functioning at the onset of psychotic episodes, and adopt a flexible approach to recovery.

Cognitive remediation. Where young people show deficits in attention, memory, processing speed, cognitive flexibility, social cognition and executive function and these compromise their capacity to engage in CBT or develop normal living routines, cognitive remediation may be offered. With cognitive remediation young people engage in regular computer-based or paper and pencil–based training tasks and puzzles for a number of times each week over a period of months (Tomás et al., 2010; Wykes & Reeder, 2005). Specific tasks are deigned to improve specific targeted deficits such as memory. Task difficulty is designed so high success rates are achieved or so that errorless learning occurs. Over time young people build up their cognitive skills or develop strategies for compensating for their deficits.

Social skills training. Where young people show social skills deficits that compromise their recovery they may be offered social skills training (Bellack et al., 2004). This is usually offered within a group therapy context, and involves the development of communication, conversation, assertiveness, medication management and social problem-solving skills. Modelling, rehearsal, shaping and reinforcement are used during the training process.

Family intervention

The aim of psychoeducational family therapy is to reduce family stress and promote recovery (Falloon et al., 1993; Kuipers et al., 2002; McFarlane, 2004). Families are helped to understand psychosis and address the challenges associated with recovery in a constructive way. Ideally programmes span 9–12 months and are offered in a phased format with 3 months of weekly sessions, 3 months of fortnightly sessions, and 3 months of monthly sessions, followed by three monthly reviews and crisis intervention as required. Treatment may be offered to individual families, or to groups or families in a multi-family therapy format for parents. Next a detailed account of an approach to family therapy for individual families will be offered, followed by a brief description of how to conduct multi-family therapy for groups of parents. With respect to the content and process of treatment programmes, a number of core elements typify effective family-based interventions for young people with psychosis. First, during the engagement phase an emphasis is placed on blame reduction, emphasizing the positive role family members can play in the rehabilitation of the young person with psychosis, and the degree to which family therapy will alleviate some of the family's burden of care. Second, effective family intervention programmes include psychoeducation based on a diathesis-stress model and target unique challenges families face in coping with psychosis in their specific situation. Third, medication adherence is addressed. Fourth, family members learn to use communication and problem-solving skills rather than destructive interaction styles motivated by anger and guilt. Fifth, parents are encouraged to use an authoritative parenting style in helping children with psychosis normalize their lives. Sixth, self-care among non-symptomatic family members is emphasized. Finally, most programmes incorporate a variety of family therapy techniques such as externalizing the problem, re-framing, and relapse prevention.

Effective family therapy begins with a thorough assessment. Specific instruments for assessing family knowledge of schizophrenia, family problems associated with caring for a person with schizophrenia and burden of care for the family are listed in Table 18.7. Patterns of family interaction that have evolved around the youngster's symptoms, which may exacerbate psychotic symptoms, should be assessed in particular detail. For example, careful interviewing about episodes during which symptoms occur may show that parents regularly criticize the young person's delusional ideas and in doing so make them more entrenched, or inadvertently reinforce hallucinations by responding to hallucination-related distress in an over-involved way. Intervention plans may be based on formulations that arise from family assessment.

Engagement. During the engagement phase, adopting a non-blaming stance with respect to parents is particularly important since many parents inappropriately blame themselves for the occurrence of their child's symptoms. Family therapy is described as a set of meetings within which parents and siblings can discuss how best to help the young person with psychosis recover and begin to lead as normal a life as possible. Psychosis is described as a condition which arises from the interaction of a vulnerability towards the disorder with a build-up of life stress. Evidence for both the predisposition and the build-up of life stress may be drawn from the family and individual developmental history constructed during assessment. Effective recovery involves taking medication and developing a normal, low-stress lifestyle. This theme is revisited frequently throughout treatment. The rationale for family therapy is that living with a young person who has psychosis is stressful and implementing a home-based care plan is demanding and complex, and families may benefit from guidance with this. Also, young people with psychosis are sensitive to stress from others, for example the sort that is expressed when someone has had a hard day, and a family support programme may help families develop skills to shield the adolescent from this type of spill-over.

The family are invited to participate in series of sessions at their home or in the clinic to help them understand the condition and how best to manage it and promote recovery. This invitation may be met with resistance since families may have had negative therapy experiences in the past, may be suspicious of the therapist, or may fear being blamed or making things worse. When faced with resistance, be persistent and regularly represent the invitation to participate in therapy; be positive and concerned in all contacts with family members at which invitations to engage in therapy are offered; and be flexible about the time and place where appointments are offered.

In conducting home-based family sessions, convey to the family that the sessions are occasions for working on methods for handling problems rather than social visits. The main dangers to be avoided are being so business-like as to be rude on the one hand and allowing casual social conversation to take over the session on the other. During home-based sessions arrange for the TV, radio, phones and other distractions to be turned off.

During both home- and clinic-based sessions, begin by 'checking in' with each person. Invite them to briefly say how they are at the moment and if anything significant has happened in their lives since the previous meeting. If family members have been invited to do homework tasks in a previous meeting, review the outcome of these. In the main part of each meeting, focus on a core theme. Towards the end of each session, offer a central message which summarizes key issues covered in the meeting, and invite family members to complete homework tasks to be reviewed in the next session, if appropriate. Close meetings by asking each family member for their reflection on the session.

Working in a co-therapy team. Working with families of young people with psychosis can be complex and tiring and place psychologists at risk of burnout. The family's emotional responses to the condition are often intense, and communication and problem-solving routines may be very ineffective because of this. One way to cope with the demands of working with these families without burning out is to work with a co-therapist. For example, a clinical psychologist might work with a community-based psychiatric nurse. In selecting a co-therapist, try to choose someone with whom you can have a respectful, flexible and trusting working relationship. Before each session, jointly plan a set of aims to be achieved and arrange who is to do what during the session. One way of co-working is for one therapist to be with interviewer and the other to observe the interview and take notes if necessary. When the observer has an input to make it is useful if this is made by discussing it openly with the other therapist in front of the family. When both therapists have discussed the input, the observer withdraws into the role of observer again and the interviewing therapist asks the family for their views on the issue. A second style of co-therapy involves dividing the family into subsystems and each therapist working with one subsystem. For example, one therapist may work with the parents and another with the symptomatic young person. Or one therapist may work with the males in the family and another with the females. A vital part of co-therapy is debriefing after each session. Debriefing involves resolving any feelings of conflict that arose during the session between co-therapists and also reflecting on progress that was made with the family during the session and possible avenues for future work. The importance of resolving conflicts between co-therapists cannot be over-emphasized. Often deep-seated family conflicts become transmitted to the therapists who inadvertently adopt positions of different family members and feel an urge to act out repetitive unproductive patterns of interaction which characterize the family with which they have been working. Debriefing is one way to minimize this type of interaction-pattern mirroring in the co-therapy team.

Psychoeducational sessions. In early sessions the main agenda is psychoeducation. Key points set out in Figure 18.3 may be presented and discussed. The parents and adolescent may be given a handout containing Figure 18.3. During sessions the psychologist invites family members to go through each point one at a time, and for each point invite family members how the point fits with their experience of having a family member with psychosis. This helps the family develop a frame of reference into which they can incorporate their experience of the young person's condition. Psychoeducational sessions help the family to view psychosis as a condition to which the adolescent was vulnerable and the onset of which was precipitated by stress. Where appropriate this framing of the aetiology of the condition absolves the family from blame and guilt. However, in some cases, child abuse, neglect, trauma and adversity causes psychosis. Where child maltreatment may be a factor, assessment and management of this is essential, following procedures described in Chapters 19–21.

NOTES FOR FAMILIES WITH TEENAGERS OR YOUNG ADULTS WITH PSYCHOSIS

Psychosis is a complex condition. The young person was born with a vulnerability to this condition. This vulnerability is genetically transmitted in some cases. In others it results from pre-natal exposure to infections. In others it arises from early adversity or trauma. Symptoms occur when, during the teenage years, a build-up of life stress or conflict occurs. Details of where in the brain this vulnerability is located and how it works are not known. Research is being done to answer these questions throughout the world. Psychosis is an umbrella term for a number of similar and related conditions. One of these conditions is schizophrenia.

The person and the psychosis are separate. Remember how the young person was before the psychosis occurred? That young person is separate from their psychosis. The young person is separate from the symptoms of psychosis which are described below (thought disorder, hallucinations, delusions, withdrawal and inactivity).

Parents have a key role to play in recovery. Recovery from psychosis involves the family and the young person working together to understand and control psychosis, and recover a normal lifestyle.

One in 100 people get schizophrenia over the course of their lifetime in all countries in the world.

One of the symptoms of psychosis is thought disorder. Young people with psychosis may talk a great deal but appear to lose the thread of what they are saying so that it's hard to understand what they mean. This is because they have lost the ability to control the amount of thoughts that they think and to put their thoughts in a logical order. Other times they simply stop talking abruptly. This is because they have the experience of their mind going blank. The experience of thought disorder is very frightening and young people may worry a good deal about it and try to make sense of it in strange ways. Some times they may blame someone for putting thoughts into their head. Other times they may blame someone for robbing their thoughts because they experience their mind going blank.

Another symptom of psychosis is auditory hallucinations. Young people with psychosis may hear voices that sound like a running commentary or like two people conversing about them or like someone talking to them. This is a very frightening experience when it first happens. Young people may try to make sense of it by attributing the voices to a transmitter, the TV, God, aliens or some other source. Sometimes people shout back at the voices to try to make them stop. Other times they feel compelled to follow instructions given by the voices.

A third symptom of psychosis is delusions. Young people with psychosis may hold strong beliefs which are implausible to members of their families or community. For example, they may believe that they are being persecuted by hidden forces or family members or that they are on a mission from God who speaks to them. Usually delusions are an attempt to make sense of hallucinations or thought disorder. People with delusions usually refuse to change these even in the face of strong evidence that their position is implausible.

Problems with emotions may also occur in psychosis. Young people with psychosis often withdraw and show little affection or love. They may also have outburst of laughter or anger which

appear to be inexplicable. These outbursts are often in response to hallucinations. Withdrawal may reflect a reoccupation with hallucinations or the intense experience of a high rate of uncontrollable thought. Occasionally young people with psychosis realize how the condition has damaged their lifestyle and relationships. This may result in depression. On other occasions they may deny that any changes have occurred and be overly excited and optimistic.

Problems with withdrawal, daily routines and hygiene may also occur. Young people with psychosis may have little energy, sleep a great deal, avoid the company of others and pay little attention to washing or personal hygiene. This is partly because the experiences of thought disorder and hallucinations and attempts to make sense of these experiences through delusions have left them exhausted and with the realization that they no longer know how to fit in with other people. They may also have feelings that they cannot control and direct their own behaviour. Because withdrawal, poor hygiene and a breakdown in daily routine are symptoms of psychosis, it is unhelpful to criticize the young person for not making major changes in these areas rapidly. A gradual approach to change is helpful.

Some symptoms of psychosis are treatable with medication. Medication my help the young person control thought disorder, hallucinations and delusions. Some people get their medication in pills and others get it by injection. Some people want to stop taking medication because it has side effects such as shaking or feeling restless. It is important to take the pills or the injection following the medical team's directions. People who stop taking medication may feel fine for weeks or months but then they may relapse because they have not enough medication in their body to keep them from relapsing. Unfortunately, medication may have short and long-term side effects. There may be weight gain. Medication can also lead to a peculiar movement disorder called tardive dyskinesia involving strange facial movements and hand movements. These long-term side effects can be reduced if a lower dose of medication is taken.

Cognitive-behavioural therapy or CBT may help young people learn to control some symptoms and require only a low dose of medication. For young people on low doses of medication, hallucinations, delusions and thought disorder can to some degree be brought under control by learning special skills in CBT. The social skills necessary to control the symptoms of withdrawal, poor hygiene and a breakdown in daily routines can be learned through specialized individual or group social skills training.

Family therapy may help families to support young people with psychosis and reduce stress their lives. Family therapy helps families to help young people with psychosis feel supported and understood. It also helps them learn how to reduce stress. With high support and low stress, fewer relapses will occur and less medication will be needed. The key to high support is to avoid criticism and avoid showing excessive worrying about the young person's well-being. One way to start doing this is to spend more time each day in separate rooms so that you do not get on each other's nerves or cause each other to worry. Talk to each other in low-key ways. Try not to show extreme frustration or worry. The key to taking a low-stress approach to recovery is to make small changes one at a time; to decide on all changes in a calm way; to communicate clearly and simply about these changes; and to make home life predictable.

Most people with psychosis can live an independent life. For many people psychosis is a chronic condition like diabetes. Most diabetics, if they take their insulin, live relatively independent lives. The same is true for most people with psychosis. One in four adolescents make a complete recovery from their first episode and do not relapse. A further 1 in 4 live relatively independent lives but relapses occur at times of stress or when medication is stopped against medical advice. Between episodes, adolescents may be more withdrawn than they used to be before the onset of the condition. Under half have significant long-term adjustment problems. Recovery is the central aim of all treatment for people with psychosis. The aim is to help young people recover their lives.

Figure 18.3 Psychoeducational notes for parents of young people with psychosis

As part of psychoeducation a distinction is made between the young person and the psychotic condition from which they suffer. Describing the young person as separate from psychosis creates a context within which the young person and other family members may join together to understand and control psychotic symptoms and work towards recovery. The family come to see the young person as ‘a good person with a bad condition’. They family come to see their mission as helping the young person recover a normal lifestyle and minimize the effect of psychosis on it. This process of externalizing the problem by defining the young person and the psychosis as separate reduces the tendency of family members to blame the young person for their psychotic symptoms.

The explanation of the positive symptoms (hallucinations, delusions and thought disorder) in concrete terms helps parents empathize with their symptomatic young person and so paves the way for a reduction in criticism. The explanation of the negative symptoms (flattened affect, withdrawal, lack of volition, hygiene problems) and their lack of response to medication helps the family avoid critical or hostile attempts to persuade the symptomatic young person to instantly conform to parental expectations in these areas. The outline of the roles of medication, individual CBT and family therapy offer the family a clear rationale for taking steps to ensure that the young person takes medication and that therapy sessions are attended. The information on family treatment clarifies for family members that therapy will focus on helping parents and siblings to reduce stress and increase support for their symptomatic family member. Finally, the information on prognosis offers the family hope by drawing an analogy between diabetes and psychosis as a chronic condition, which with proper management can lead to recovery and an independent lifestyle. Implicit in this overall psychoeducational approach is the idea that psychotic symptoms are understandable and on a continuum with normal experience.

Medication adherence. Where young people have difficulty adhering to medication, this is addressed in a supportive, non-confrontational way. Obstacles to medication adherence are identified and systematic problem-solving skills used to overcome these obstacles. Some obstacles require a practical solution, for example, forgetting to take medication may be addressed by using personal memory aids. Other obstacles, such as not wanting to take medication because of the side effects may involve more complex solutions, such as trying lower dosages, different antipsychotic medications with fewer side effects, or weighing up the costs and benefits of living with and without medication and psychotic symptoms. For weight gain, weight-loss programmes may be considered.

Aims of later sessions. After preliminary psychoeducational sessions the family is invited to use sessions to develop routines and solve problems so that family life is predictable and calm. The aim is to minimize family stress and maximize family support for young people with psychosis in their progression towards recovery and independence.

Parents are helped to develop an authoritative parenting style marked by warmth and the gradual encouragement of age-appropriate responsibilities and independence. In two-parent families, parents are helped to co-operate in their care of all of the children but particularly the young person with psychosis. Where one parent has been shouldering the burden of care, this may involve helping both parents share the load more equally. Parents are helped to strengthen the boundary between themselves and the young person with psychosis so that the young person can move towards independence and the parents can spend more time with each other in a mutually supportive relationship. In single-parent families, parents are helped to develop supportive links with members of the extended family and broader social network and strengthen the boundary between the single parent and the adolescent. This permits the young person to move towards independence and the single parent to develop an alternative focus for their energies and interests.

Where there is a high level of over-involvement or enmeshment between one parent (usually the mother) and the young person with psychosis, the guilt that typically underlies the over-involvement may require considerable exploration and acknowledgement. The psychologist's message must be that parents don't cause schizophrenia. However, they can help young people recover by promoting independence, allowing the development of autonomy and respecting the adolescent's privacy.

Some of the changes described earlier are achieved by coaching family members in communication skills and problem-solving skills and helping them to use these skills to achieve their aims.

Communication skills training. In communication skills training family members are coached to follow the guidelines set out in Table 4.2 in Chapter 4. Family members may be invited to discuss a particular issue, such as how the next weekend should be spent, with a view to clarifying everyone's opinion about this. As they proceed, the psychologist may periodically stop the conversation and point out the degree to which the family's typical communication style conforms to or contravenes the guidelines for good communication. All approximations to good communication should be acknowledged and praised. Alternatives to poor communication should be modelled by the therapist. Typically there are problems with everyone getting an equal share of talking time, with the symptomatic family member usually getting the least. Often messages are sent in a very unclear way and listeners rarely check out that what they have understood is what the speaker intended. While two sessions should be exclusively devoted to explicitly training family members in using the communication guidelines set out in Table 4.2 in Chapter 4, coaching in communication skills occurs throughout treatment. The psychologist should acknowledge particularly good examples of clear communication and model alternatives when poor communication occurs.

Problem-solving skills training. With problem-solving training, as specific problems that families wish to solve arise they may be used as opportunities for coaching in systematic problem solving as described in Table 4.3 in Chapter 4. Big problems should be broken down into smaller problems and vague problems should be clarified. Problems may be listed and prioritized. Families have a better chance of achieving problem-solving goals if they are specific, visualizable and moderately challenging. In prioritizing goals it is important to explore the costs and benefits of goals for each family member so that ultimately the high priority goals are those which meet the needs of as many family members as possible.

Common child-focused goals include arranging ways in which young people can take on some age-appropriate responsibilities such as meeting friends, cleaning their own clothes, managing money, ensuring that they have private living space free from parental intrusion, and taking medication regularly. Common adult-focused goals include arranging time that parents can spend together without the young person with psychosis, or arranging time that adults can spend doing sports or hobbies which they enjoy.

Once the list of target goals has been agreed, ways of achieving these goals are explored. This usually involves coaching family members in problem-solving skills. Both specific and general guidelines for problem solving are presented in in Table 4.3 in Chapter 4. Family members should be asked to try to use these guidelines to solve a particular problem and this attempt is observed by the treatment team. Feedback on problem-solving skills that were well used is given and alternatives to poor problem-solving skills are modelled by the therapists.

Common pitfalls for family members include defining problems vaguely, trying to solve more than one problem at a time, and evaluating the pros and cons of potential solutions before all solutions have been listed. This is an important error to correct, since premature solution-evaluation can stifle the production of creative solutions. Often families need to be coached out of bad communication habits in problem-solving training such as negative mind-reading where they attribute negative thoughts or feelings to others, blaming, sulking and abusing others. At the end of an episode of problem-solving coaching, family members typically identify a solution. They may be invited to try out this solution before the next session and plan to review the impact of the solution on the problem in the next session.

Re-framing. Strong emotions arising from guilt and grief may lead to parents and siblings interacting with young people with psychosis in stressful ways. Re-framing is an intervention that may be used to address this issue. Many parents incorrectly believe that they are responsible for their adolescents’ condition and feel intense guilt. This guilt may lead them to become either over-involved in their adolescents’ lives to the point where they prevent the development of independence. Many mothers show this response. For many fathers, guilt fuels an angry response, and they criticize adolescents for their psychotic symptoms and related behaviour. For example, negative symptoms such as social withdrawal or poor hygiene are the focus of this criticism. All family members experience grief at the loss associated with a young person having psychosis. There is the loss of the way the young person used to be before the onset of psychosis. There is also a sense of loss concerning the hopes and expectations parents and siblings had for the young person which now must be modified. Grief arising from this loss may be expressed as intense sadness, anger, anxiety and so forth.

Re-framing statements about emotional states made by family members may be used to minimize the negative impact of intense emotional expression on young people recovering from psychosis. For example, if a parent expresses criticism by saying:

> I can’t stand you. You’re driving me crazy too!

the psychologist may re-frame this by saying:

> It sounds like you really miss the way Johnny used to be and sometimes these feelings of loss are very strong.

If a parent expresses anxiety and over-involvement by saying:

> I have to do every thing for you because you can’t manage alone!

the psychologist may re-frame this by saying:

> It sounds like you find yourself worrying a lot about Johnny’s future and wondering will he be able to fend for himself.

In response to parental statements like:

> You make me so miserable with your silly carry-on. Sometimes I think what’s the point?

the psychologist may re-frame this by saying:

> When you see Johnny’s symptoms, it reminds you of how he was before all this. Then you find your mood drops and this sadness and grief is hard to live with.

All of these re-framings involve labelling the emotional experience as arising out of underlying positive feelings that the parent has for the symptomatic adolescent, such as love, attachment, and concern. The re-framings also describe the emotions as arising from the way the parent is coping, rather than being caused exclusively by the symptomatic teenager. That is, they give the message that the parent *owns* the feeling, and that the feelings are not *imposed* on the parent by the adolescent. Re-framing is a process that occurs throughout therapy rather than being covered in a couple of sessions.

Conflict management. Where parents and young people with psychosis become involved in escalating patterns of conflict which may result in violence, a structured approach to conflict management may be used. The co-therapy team may invite the parent and young person to outline their distinct and separate perspectives on the conflict. Once both viewpoints have been elicited, the co-therapists may then discuss possible ways that a compromise could be reached in a respectful manner in the presence of the family, thus modelling non-violent conflict management. If the conflict has escalated to an extreme degree, one co-therapist may meet with the parents to find out their viewpoint and another meet separately with the young person to find out his. Subsequently both factions may meet with both co-therapists who discuss the conflict in the presence of the family with one co-therapist acting as an advocate for the adolescent and the other speaking as an advocate for the parents. When a successful resolution of the conflict s reached, therapists should help families plan ways in which conflicts at home may be managed in future. These may include avoiding specific situations that precipitate conflict; allowing a cooling-off period of a few minutes when angry exchanges occur; using turn-taking as each side presents their position; and contacting the therapy team or the family doctor when a resolution cannot be reached.

Contingency management. Contingency management, where specific target adaptive behaviours are reinforced and non-adaptive behaviours are not reinforced, may be used to help young people with psychosis replace negative symptoms such as lack of goal-directed behaviour, restricted expression of emotions, and restricted or incoherent speech with more adaptive alternatives. Contingency management approaches may also be used to help replace the behavioural manifestations of hallucinations or delusions with less bizarre behaviour. This treatment was developed within an institutional context in the form of token economy programmes. Patients received token for engaging in pro-social behaviours. Symptomatic behaviours were not reinforced and aggressive behaviour was reduced through the use of time out. The token economy approach to contingency management is not usually feasible for adolescents living with their families in the community. However, contingency contracts between the young person and parents may be developed. Within such contracts, there is an agreement that the attainment of certain target goals on the part of the young person will lead to certain positive consequences.

Relapse prevention and disengagement. Signals that may herald relapse such as the build-up of life stress or the occurrence of prodromal symptoms may be discussed during the disengagement phase. Plans for reducing stress, increasing medication, and avoiding catastrophic interpretation of symptoms may be made. Plans for review sessions may also be discussed.

Multi-family groups for parents

The model of family therapy outlined earlier is for the treatment of individual families. An alternative is to conduct multi-family groups for parents. Parent groups have been shown to reduce expressed emotion in families with a member with a diagnosis of schizophrenia, and an approach to running such a group is given in Kuipers et al.'s (2002) treatment manual. Parents groups should ideally contain no more than 12 members and be of about 90 minutes' duration with meetings occurring fortnightly over a period of about nine months. They may be open or closed and ideally should be run in the evenings in a convenient location to minimize temporal and geographic barriers to attendance. To recruit parents into a relatives' group it is useful to meet them at their homes for a couple of sessions of psychoeducation and then offer a place in the group as a place where they can discuss with other parents in similar circumstances how best to manage the process of living with an adolescent who has a diagnosis of schizophrenia. The specific aims of relatives' groups are

- to help lower parental criticism and over-involvement
- to help parents ventilate distressing feelings of such as sadness, anger and anxiety associated with the adolescents' condition
- to provide a form for group problem solving where parents can brainstorm solutions to the various difficulties that arise from lining with an adolescent with a diagnosis of schizophrenia
- to provide parents with a support network to counter feelings of isolation and stigmatization.

In the first meeting the ground rules of turn-taking, support, respect, trust and a commitment to problem solving is established by the therapist, who then invites each person to briefly recount their story in about 5–10 minutes emphasizing things that they have done to keep going through difficult times. The therapist's role is to ensure that everyone gets a fair turn, with less forthcoming members being facilitated and the highly verbal being limited to 10 minutes maximum. All subsequent meeting should open with a round, where each person has a turn to say what has happened since the previous meeting.

Initially themes raised for discussion in the group are practical (e.g. how to deal with the adolescent's poor hygiene) or educational (e.g. what happens if medication is not taken). The therapists role is to encourage the group to use its collective experience to solve these problems, and only offer expert information if the group lack this. If parents agree to try a particular solution as homework, this should be reviewed in the next group.

In later sessions as trust develops, parents use the group to process distressing emotions such as guilt for possibly causing their adolescent's condition; grief associated with the loss of their child's health; anger at their adolescent's unusual behaviour; fear that the adolescent will harm themselves or others; anxiety about who will care for the adolescent later in life when they are unable to; or anger at service providers for their inadequacies. With emotional issues, the therapist's job is to facilitate emotional expression and processing while encouraging the group to support members who are processing distressing emotions by acknowledging the value of them, listening and empathizing.

Summary

Psychosis refers to conditions characterized by positive symptoms such as delusions and hallucinations; negative symptoms such as diminished affective expression and reduced goal-directed behaviour; and disorganized thinking and behaviour. Schizophrenia is a form of psychosis which affects just under 1% of the population. This and other conditions which share similar symptoms and genetic factors are referred to in DSM-5 and ICD-10 as schizophrenia spectrum disorders. Psychosis typically first occurs in late adolescence or early adulthood and follows an episodic relapsing course. Up to 40% of patients show one or more periods of complete recovery with good adjustment for at least a year and 4–20% show complete remission. Biological theories of schizophrenia spectrum disorders point to the role of genetic and neurodevelopmental factors in rendering people vulnerable to the development of psychosis, and to the role of structural and functional brain abnormalities and dysregulation of neurotransmitter systems, notably those involving dopamine and glutamate, in the aetiology of psychosis. Pharmacological interventions for psychosis are associated with this biomedical approach to psychosis. Stress-vulnerability or diathesis-stress theories propose that psychosis occurs when neurobiologically vulnerable individuals are exposed to psychosocial stress. Cognitive-behavioural and family systems theories have led to the development of CBT and family therapy interventions for psychosis. Cognitive remediation and social skills training have been developed to address cognitive and social skills deficits common among people with psychosis. The identification of prodromal signs has informed the development of relapse prevention interventions. The recovery movement is being adopted as an over-arching framework for mental health services internationally. It has created a context for the development of innovative community-based approaches to mental health service delivery such as early intervention, the strengths-based case management model, assertive community treatment and vocational rehabilitation. Assessment premised on multi-factorial diathesis-stress models of schizophrenia address predisposing, precipitating and maintaining factors within the biological, psychological and contextual domains. Treatment programmes premised on diathesis-stress models involve recovery-oriented case management, antipsychotic medication to address dysregulation of the dopamine system, individual CBT to enhance personal coping with psychotic symptoms, and family therapy to harness family resources promote recovery.

Exercise 18.1

Re-read the case study presented in Figure 18.1.

Develop a plan for two sessions with Julian to help him begin to control his delusions and hallucinations.

Develop a plan for the first two sessions with the family which aims to reduce the level of expressed emotion.

Further reading

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Websites

American Psychiatric Association's practice guidelines for treating schizophrenia: http://www.psychiatryonline.com/pracGuide/pracGuidehome.aspx

Mental Health Foundation: http://www.mentalhealth.org.uk

Mind: http://www.mind.org.uk

NICE – National Institute for Clinical Excellence guidelines for treating schizophrenia: http://guidance.nice.org.uk/Topic/MentalHealthBehavioural

PORT. Schizophrenia Patient Outcomes Research Team updated treatment recommendations 2009: http://schizophreniabulletin.oxfordjournals.org/content/36/1/94.full.pdf+html

RETHINK: http://www.rethink.org/

Schizophrenia Research Forum: http://www.schizophreniaforum.org/

Section 5

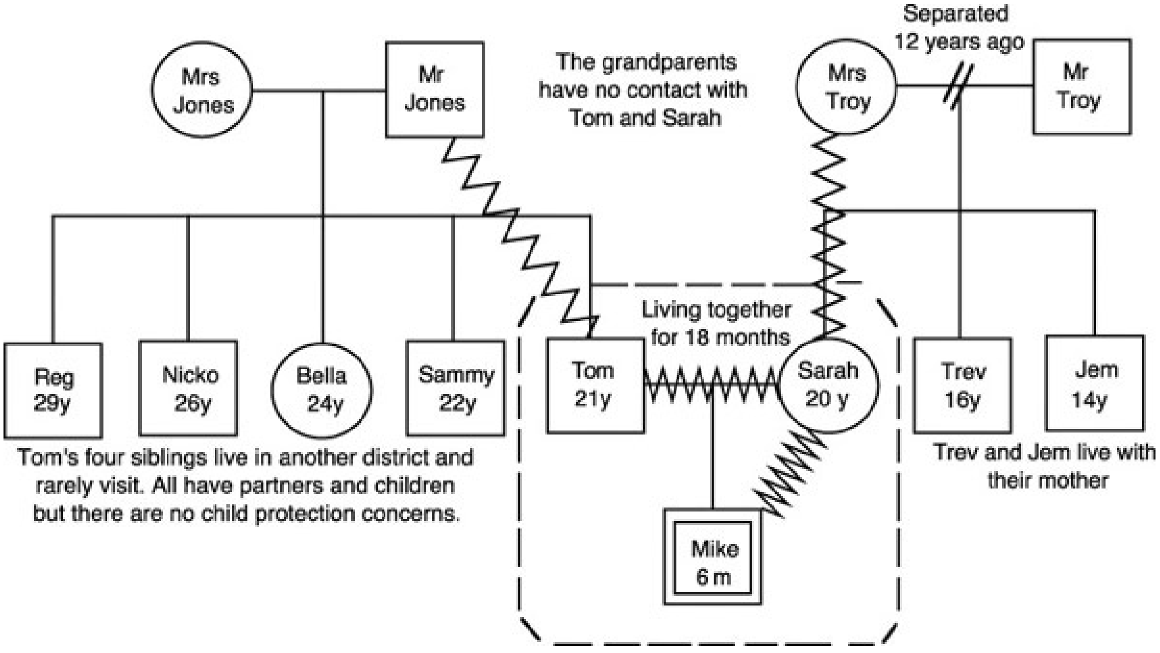
Child abuse

Chapter 19

Physical child abuse

Child abuse reflects the international consensus about what constitutes unacceptable childcare and the violation of children's human rights. These rights are outlined in the United Nations Convention on the Rights of the Child (1992). Physical abuse refers to deliberately inflicted injury and includes hitting, kicking, throwing, biting, burning, scalding, strangling, stabbing, suffocating, drowning and poisoning (American Academy of Child and Adolescent Psychiatry, 1997b; Department of Education, 2013; Jones, 2008; Myers, 2011a; NICE, 2009; Stoltenborgh et al., 2013a). A typical case of physical child abuse is presented in Box 19.1. In some countries physical chastisement by, for example, slapping or caning is common. Here punishment that leads to observable physical harm is defined as abuse and legally distinguished from normal chastisement. The 'battered child syndrome', a particularly extreme outcome of physical abuse, refers to cases where young children present with multiple bruises, skeletal and head injuries, often accompanied by malnutrition and neglect and marked anxiety, and whose parents deny responsibility for these injuries (Kempe et al., 1962). Munchausen syndrome by proxy may sometimes involve physical abuse. With this syndrome, parents repeatedly bring their children for medical consultation for conditions that they have induced, or for fabricated symptoms. Usually young mothers with pre-school children present with Munchausen syndrome by proxy. Where physical abuse is involved, parents may induce symptoms by poisoning or partially suffocating their children (Korpershoek & Flisher, 2004). Physical abuse may be intrafamilial or institutional, and may occur alone or in conjunction with sexual abuse, neglect or emotional abuse. There is a high level of co-morbidity for physical abuse and neglect. This is probably because some common contextual risk factors are associated with both types of maltreatment. In this chapter, after considering the epidemiology and effects of physical abuse, an approach to assessing risk and protective factors in cases where physical abuse has occurred and rehabilitation is being considered will be described. One approach to treatment of such cases will then be given. In the final section of the chapter prevention will be discussed.

Box 19.1 A case of physical child abuse



Referral. This case was referred to a child and family mental health team by social services following a non-accidental injury, identified by the paediatrician in the district general hospital. The purpose of the referral was to see if Mike could be returned to the custody of his parents. At the time of the referral, Mike was in temporary foster care with the O'Sullivans. Mike had a torn frenulum, extensive facial bruising and burn marks from an electric heater on his arm.

Sarah, the mother, brought the child to casualty after the child accidentally brushed against the heater. Sarah and Tom said the torn frenulum and bruising were due to two episodes of falling down. The paediatrician's said the bruises and frenulum injuries were due to recent non-accidental injury (NAI). A place of safety order was taken and after medical treatment, Mike was placed in foster care with the O'Sullivans. The parents were granted twice-weekly supervised access and these visits occurred at the O'Sullivan's house. The mother was charged by the police with grievous bodily harm, found guilty and put on probation. The team interviewed Tom and Sarah, observed family access visits and linked with all involved professionals.

Assessment of the child. Mike was a difficult temperament child who reacted strongly to all new stimuli by crying and was difficult to soothe. He slept and ate at irregular times. He often vomited his food up. He did not look like a bonnie baby and probably bore little resemblance to Tom and Sarah's idea of a good baby. He had placed heavy demands on them since his birth and they were both exhausted from trying to care for him.

The mother's family history. Sarah, the mother, had a history of poor school performance. She had difficulty making and maintaining peer relationships. Her parents had a highly conflictual and violent marriage which ended when she was 8. She had a difficult relationship with her mother. Sarah experienced episodes of low mood that bordered on clinical depression and had poor frustration tolerance.

The father's family history. Tom, the father, had a history of truancy and was the youngest child in a conflictual and chaotic family. In particular he had a conflictual and violent relationship with his father. He also had limited skills for resolving conflicts and often resorted to violence when others disagreed with him. He had a chequered employment record. His parents disapproved of Sarah. Tom's three brothers and his sisters all had partners (either co-habitees or spouses) and children and all lived outside of Tom's village now.

Parenting resources. Tom had little time for the baby and had few parenting skills and limited parenting knowledge. Sarah had a good knowledge of the practicalities of looking after a baby but little sense of what was developmentally appropriate for a 6 month old child. She found it difficult to interpret what Mike's crying meant and usually attributed it to him trying to annoy her. She was unable to empathize with her child's position. She would scold him as if he were a 5 year old. Usually when he cried she would leave him to lie alone in the other room. Sometimes, in frustration, she would thrust his bottle at him and say, 'I'll ram this down your throat if you don't shut up.'

The couples relationship. Tom and Sarah vacillated between extreme closeness and warmth and violent rows. They had known each other about a year when Mike was born. They were unmarried and had no immediate plans to marry. They settled their differences usually by engaging in escalating shouting matches that occasionally involved mutual violence. Usually after these stormy episodes on or both would leave the situation and one or both would get drunk. Later the issue would be dropped until the next heated exchange, when it would be brought up again.

Social support network and family stresses. The Joneses were very isolated with few friends. They were unsupported by the extended family and had no regular contact with either Tom's or Sarah's parents or siblings. They were financially stressed., since neither of them worked and relied on welfare payments to support themselves. They lived in a two-room rented flat over a shop.

The abusive incident. The abusive incident involved the following sequence of events. Mike began to cry at 2.00 am and would not stop. This was typical of him as a child with a difficult temperament. Sarah interpreted the crying as Mike trying to prove she was no good as a mother and as his attempt to punish her by stopping her from sleeping. When she expressed this view to Tom, he argued with her, which further upset Mike, and then Tom went back to sleep. Sarah's anger at the child escalated, and this was fuelled by her negative attributions concerning the child's motives, her lack of empathy for Mike, her anger at Tom, and her exhaustion. She took the child's bottle and shoved into Mike's mouth and tore his frenulum. He tried to spit it out. She hit him twice. Picked him up and then dropped him next to the heater which he fell against. This act was influenced by her own punishment experiences as a child. He mother had relied on corporal punishment as a routine method of control and often she was very severe. The act was also influenced by her habit of using a bottle to stop Mike from crying.

Capacity to co-operate with the team. Sarah accepted that the abuse was the result of her being unable to control her frustration in a stressful situation. She was committed to learning how to manage her child in stressful situations and to engaging in family work to learn child management skills. Sarah and Tom refused to accept that counselling for their personal or relationship difficulties would be of any benefit to them. Sarah was able to co-operate with the team and engaged well in the assessment. Tom found co-operation very difficult and only went along with the assessment procedures to placate Sarah.

Formulation. The Joneses were a young single-child family, in which physical child abuse had occurred. The violence of the mother towards the child was influenced by a number of factors including the mother's and father's difficulties in regulating anger and negative mood states; the parents' lack of childcare knowledge and skills; the couple's difficulty in sustaining a mutually supportive relationship; the lack of support from the extended family; and the multiple stresses on the couple including financial difficulties and crowded accommodation. The main protective factor was the mother's acceptance of responsibility for the abuse and willingness to work with the team to develop parenting skills. However, an important related risk factor was the couple's refusal to acknowledge the contribution of personal and marital difficulties to the occurrence of the abuse, and the necessity of working to enhance mood regulation skills and marital communication.

Treatment. The treatment plan was to offer parenting skills training to the parents, and to offer the mother a place in support group for mothers in which learning mood regulation skills were central to the agenda. In addition plans were made to help Sarah develop a more supportive relationship with her mother. However, the prognosis in this case was guarded because of the couple's refusal to acknowledge the role of marital factors and personal factors in occurrence of the abuse.

Epidemiology

In a series of meta-analyses of international studies Stoltenborgh et al. (2011, 2012, 2013a, 2013b) found prevalence rates based on self-report of 22.6% for physical abuse, 12.7% for contact sexual abuse, 36.3% for emotional abuse, 16.3% for physical neglect and 18.4% for emotional neglect. Thus, with the exception of emotional abuse, physical abuse is the most prevalent of these differing forms of child maltreatment. A review of international incidence studies confirms that physical abuse is a relatively common phenomenon (Creighton, 2004). Community surveys in the US, the UK and other European countries in the 1990s found that the annual incidence of physical child abuse was 50–90 per 1,000, or 5–9%. In these surveys, physical abuse was defined as being hit with an object, punched, bitten, kicked, beaten up, or attacked with a knife or gun. However, only a minority of such cases came to the attention of child protection services and were officially reported. Thus, the incidence of physical child abuse based on officially reported cases was far lower than that based on surveys. The annual incidence of physical abuse in the UK, Australia and North America, based on officially reported cases in the 1990s was 0.5–2.5 per 1,000. About a quarter of all reported cases of child maltreatment in these countries involved physical abuse, rather than sexual or emotional abuse or neglect.

Effects of physical abuse

Physical child abuse has short- and long-term physical and psychological consequences (Baer & Martinez, 2006; Cicchetti, 2004; Jaffee & Maikovich-Fong, 2013; Jones, 2008; Kolko, 2002; McCrory et al., 2010; Mironova et al., 2011; Nanni et al., 2012; Wegman & Steltler, 2009). The physical consequences of abuse include scarring, disfigurement, neurological damage, visual or auditory impairment and failure of growth. While the majority of these effects attenuate with time, most persist into adulthood. Child abuse is also associated with an increased risk of poor physical health in adulthood. During adulthood survivors of child abuse are more likely to have neurological, musculoskeletal, and respiratory problems, cardiovascular disease, and gastrointestinal and metabolic disorders.

The short-term psychological consequences include negative self-evaluative beliefs, problems with the development of linguistic and cognitive competencies, problems with affect regulation, and associated excesses of internalizing and externalizing behaviour problems and relationship difficulties. Negative self-evaluative beliefs include low self-esteem and low self-efficacy. Cognitive and language deficits include developmental delays in the emergence of abilities and language usage; poor academic attainment; and lower levels of symbolic play. Affect regulation difficulties find expression in externalizing behaviour problems such as uncontrolled anger and aggression. Affect regulation problems also find expression in internalizing behaviour problems such as depression, anxiety, overly compliant behaviour in the face of authority, and self-harm sometimes leading to suicide. Relationship difficulties, probably associated with the development of victim–abuser internal working models of caregiver relationships, are first evident in the abused children's anxious-avoidant or disorganized attachment to their primary caregivers. (A fuller discussion of attachment problems is given in Chapter 20.) The majority of children or teenagers who run away from home have been physically abused. Later relationship difficulties occur with peers. Abused children also have difficulty empathizing with others. The studies from which this list of consequences has been abstracted, for the most part, compared abused and non-abused children after the abuse occurred. There is, therefore, the possibility that some of the child characteristics found to typify abused children may represent the causes of abuse rather than the effects.

One of the central findings on the long-term effects of physical abuse is that individuals abused as children have a higher risk of externalizing and internalizing behaviour problems during adolescence and adulthood. Externalizing behaviour problems include teenage delinquency, aggression, domestic violence, child abuse and substance abuse. Internalizing behaviour problems include self-injury, suicide, anxiety, depression and somatization. Long-term adjustment difficulties in making and maintaining intimate relationships are also a possible outcome for individuals abused as children. The short-term cognitive and language delays which typify many abused children, in some cases lead to long-term educational and vocational problems. Dysregulation of the hypothalamic-adrenal-pituitary (HPA) axis caused by child abuse probably mediates its short- and long-term effects on the development of psychological problems.

While the long-term difficulties listed earlier are more common among abused children than non-abused children, the majority of physically abused children do not develop serious long-term problems. For those that do, the difficulties seem to be related to characteristics of the abuse, characteristics of the child's family network and the way the placement and legal proceedings related to the abuse were managed. The frequency and severity of abuse, and the co-occurrence of neglect or emotional abuse, are associated with a poorer outcome. The presence of a variety of contextual risk factors including problems with parental adjustment, child adjustment, quality of the parent–child relationship, marital discord and high levels of family stress with low social support are all associated with poorer long-term adjustment. Details of these risk factors will be given in a later section. Poor long-term adjustment is also associated with multi-placement experiences and protracted legal proceedings associated with the abuse. Not all children develop serious long-term problems as a result of abuse. Children who are abused before the age of 5 and who do not sustain neurological damage tend to be more resilient, as do children with high ability levels, an easy temperament, and the capacity and opportunity to form socially supportive relationships with adults in the extended family and elsewhere despite the abuse.

Assessment

There are no definitive procedures or criteria for diagnosing or validating cases of physical child abuse. Guidelines vary from country to country. However, the checklist in Table 19.1 contains items that raise suspicion of physical child abuse (Jones, 2008; NICE, 2009; Reece, 2011). If physical child abuse is suspected, it is vital to request consent from the parents to arrange a full medical examination of the child immediately and to request consent to contact other involved agencies. If the medical examination gives serious grounds for suspecting abuse or if the parent's refuse to permit a full medical examination, the primary concern should be the immediate protection of the child through hospitalization or placement of the child in substitutive care. These procedures will require the psychologist to follow local guidelines for liaising with the social service department and the paediatric medical service. At this stage, in areas where there is a policy or legislation requiring mandatory reporting of child abuse cases to the local law enforcement agency, such a report must be made. This may result in police inquiries which lead to charges being brought against the abusing parent.

Table 19.1 Checklist of items that raise suspicion of physical child abuse

The injury	• Injuries inconsistent with the explanation given and the medical history • Any bruises or fractures in a baby less than a year old • Multiple injuries at various stages of resolution • Bruises in the pattern of finger marks, strap marks or pinch marks • Bruised of a similar shape and size • Bruises on any non-bony part of the body or face including the eyes, ears and buttocks • Bruises on the neck that look like attempted strangulation • Bruises on the ankles and wrists that look like ligature marks • Cuts, abrasions or scars; with symmetrical distribution; on areas protected by clothing; on the face; or ligature marks on the neck, ankles or wrists • Burns from cigarettes • Scalding injuries; in shape of an implement such as a cigarette or iron; or that indicates forced emersion in boiling water such as glove- or stocking-shaped injuries • Cold injuries such as swollen red hands or feet • Bite marks • Bald spots from hair pulling • Fractures of different ages; spiral fractures to long bones; occult fractures identified on X-ray but not clinically such as rib fractures • Tender or swollen joints • Intracranial injury (including subdural haematoma) from shaking or blows to the head • Whiplash or spinal injury from shaking • Black eyes, retinal haemorrhages • Torn frenulum or other oral injury • Abdominal injury • Poisoning

Previous injuries	• History of repeated injury • History of multiple attendances at different hospitals for children's injuries
Account of the recent injury	• The child says the parent intentionally injured him or her • Parent gives a vague account of an accident that led to injury • Parent gives an account of the accident which is incompatible with the injury • Contradictory accounts of the cause of the injury given by family members • Parents blame a third party (babysitter) • Parents say the injury was self-inflicted
Parents' relationship with assessment team	• A delay in seeking help • Greater self-concern than concern for the child • Defensiveness about responsibility for the injury • A wish to leave before the assessment is complete • Refusal to permit team to contact other involved agencies • Co-operation problems with the assessment team and refusal to give information
Supporting evidence	• The child displays an ability to distinguish fact from fantasy • There are witnesses of the actual abusive acts • There are witnesses of some aspects of the child's account such as the circumstances surrounding the abusive act but not the acts themselves and these are consistent with the child's account • The child's social context places him or her at risk for physical abuse • The child has personal characteristics which place him or her at risk for physical abuse

It is usually the statutory responsibility of the social services department to arrange a case conference and plan a comprehensive assessment of the case with a view to long-term planning. In some districts, it is only at this stage that the clinical psychologist becomes involved. Clinical psychologists may be asked to contribute to the assessment of risk factors in the case and advise on or contribute to a programme which aims to reduce the risks of further abuse should the child be returned to the custody of the parents. It is in these two areas that clinical psychologists can make a significant contribution to the management of cases of physical child abuse. Such risk assessments and risk reduction programmes may be based on a thorough evaluation of the child, family and broader systemic context within which the abuse occurred (American Academy of Child and Adolescent Psychiatry, 1997b; Crooks & Wolfe, 2007; Department of Education, 2013; Jones, 2008; Kolko, 2002; MacDonald, 2001; Reder & Lucey, 1995). It is useful through interviewing to reconstruct the abusive incident to understand the factors that contributed to the event. Such an understanding has clear implications for treatment and prevention of further abuse. In addition to this highly focused evaluation, it is also useful to construct a wide-ranging evaluation of known risk and protective factors associated with physical child abuse.

Reconstructing the abusive incident

An important part of a comprehensive assessment of a case where physical child abuse has occurred is the reconstruction of the abusive incident, in light of our current understanding of the processes that underpin physical child abuse (Crooks & Wolfe, 2007; Frude, 1990; Jones, 2008; Kolko, 2002; MacDonald, 2001; Reder & Lucey, 1995; Runyon & Urquiza, 2011). To aid this assessment process, a sequential model of events which culminate in physical abuse is set out in Figure 19.1. Most abusive episodes occur in response to a triggering behaviour by the child which the parent experiences as aversive. Surveys show common triggers are

- crying
- wetting
- refusing to eat
- stealing
- lying
- aggression.

Most abusive incidents are disciplinary encounters between parents and children, where parents use physical punishment in response to a child's trigger behaviour. The parent intends to punish the child for wrongdoing and uses physical punishment since this is their typical method of disciplining children. However, the punishment is severe because of the high level of anger and the lack of inhibition. The high level of anger which fuels the parent's abusive act is determined by the parent's arousal level and the parent's appraisal of the child's trigger behaviour. If the parent's level of arousal or anger before the trigger behaviour is high, then this may be displaced on to the child. Parents who have been involved in a marital conflict or a stressful conflict with someone in their work situation, extended family or community may displace their arousal and anger into their punishment of the child. In other situations where the parents have been involved in a repetitive escalating cycle of stressful conflict with the child, the trigger behaviour may the last straw in this escalating negative interaction pattern.

Prior to an abusive act, the parent typically appraises the child's behaviour as particularly negative and this appraisal (along with the parent's arousal level) leads to the high level of anger. Commonly such appraisals involve attributing vindictive negative, global, stable intentions to the child as a motivation for the child's triggering behaviour. Parents who physically abuse their children fail to inhibit the extreme anger they experience in response to the child's trigger behaviour. Parents who do not abuse their children empathize with the child's position or use self-talk to control their tempers. Parents who abuse their children have difficulty empathizing with children and may use self-talk to increase their negative appraisal of their child and therefore their anger. The escalating severity of physical punishment which precedes abuse may desensitize parents to the dangerousness of their actions.

The nature of the abusive act may be determined by the form of punishment the parent received as a child, the typical type of punishment the parent uses with the child, or the reason the parent is punishing the child. Abusive acts are often similar to those which the parent experienced as a child. The similarity may arise from their internalization of the aggressive relationship as an internal working model for caregiving relationships and then the subsequent identification with the aggressor role rather than the victim role within this internal working model. Abusive acts which are an escalation of normal habits like hitting with a stick on the hand may become hitting the face with a stick. Where the nature of abusive acts are determined by the reason for the act, a distinction may be made between the following sorts of reasons:

- instrumental: smothering a child to stop it crying
- symbolic/instrumental: washing out a child’s mouth with caustic liquid following cursing or lying
- promise fulfilment: ‘I told you I would put you in the fire’
- retaliation: ‘You pushed her so I’ll pick you up and throw you and see how you like it’
- opportunism: the parent uses what is to hand, like stabbing a child with a fork for bad table manners.

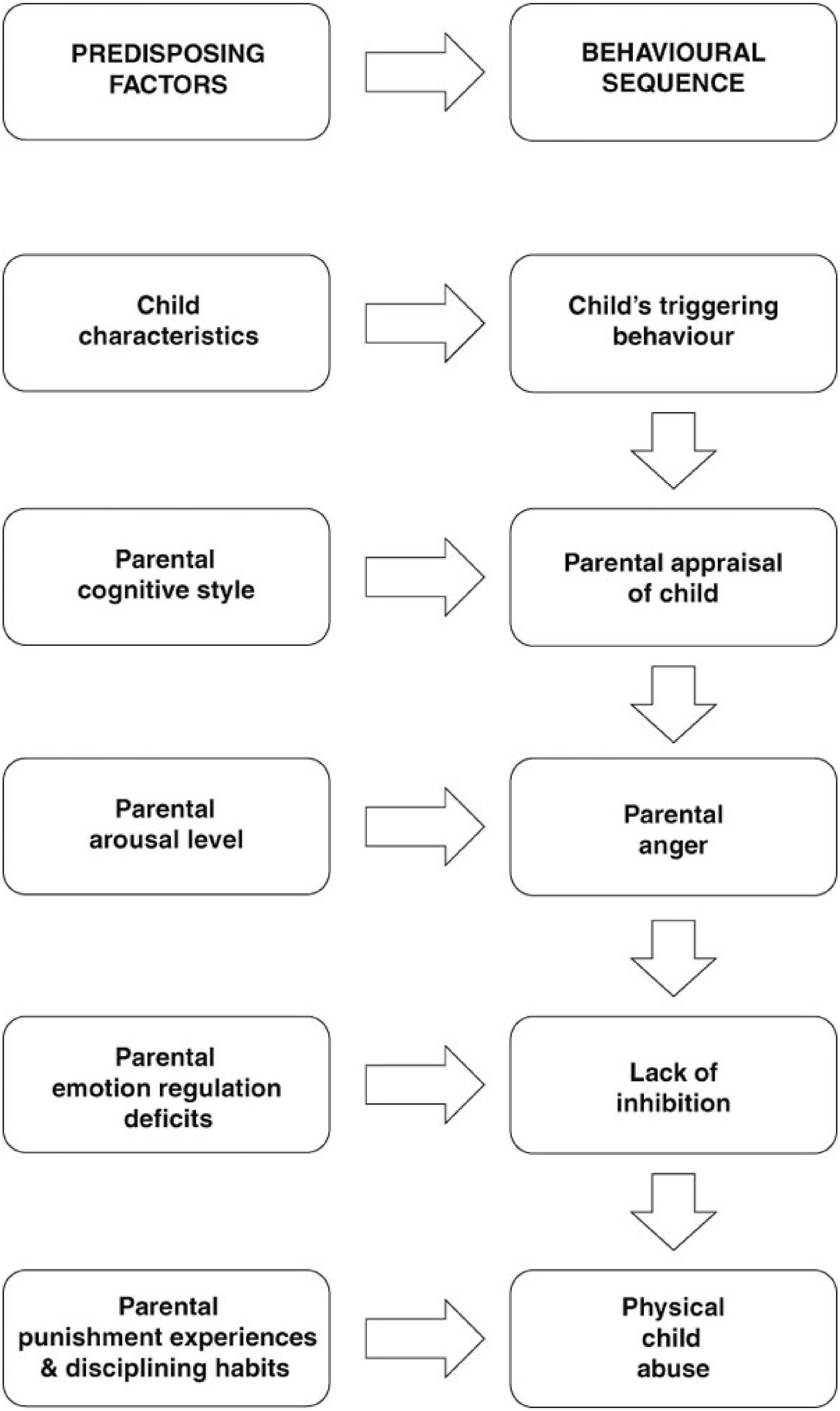

PREDISPOSING FACTORS
BEHAVIOURAL SEQUENCE
Child characteristics
Child's triggering behaviour
Parental cognitive style
Parental appraisal of child
Parental arousal level
Parental anger
Parental emotion regulation deficits
Lack of inhibition
Parental punishment experiences & disciplining habits
Physical child abuse

Figure 19.1 Model of the sequence of events leading to a physically abusive act

Helping parents to construct a model of the abusive incident is a useful forum within which to assess the degree to which they accept responsibility for the abuse or continue to deny such responsibility.

Risk and protective factors

Arising out of the reconstruction of the abusive act, a wide range of hypotheses may emerge about particular features of the child, the parents and the broader social context that contributed to the risk for child abuse. Physical child abuse is not the result of any single risk factor. Rather, abuse occurs when there is an accumulation of risk factors that outweigh the beneficial influence of a protective factors present in the case. Potential risk and protective factors along with characteristics of the abuse determine the short- and long-term effects of the physical abuse on the child's adjustment and the risk of re-abuse. These various factors which have been included in the framework set out in Figure 19.2 are based on extensive empirical literature reviews (Afifi & MacMillan, 2011; American Academy of Child and Adolescent Psychiatry, 1997b; Cicchetti, 2004; Crooks & Wolfe, 2007; Frude, 1990; Jones, 2008; Kolko, 2002; MacDonald, 2001; Reder & Lucey, 1995; Runyon & Urquiza, 2011; Stith et al., 2009).

Child's personal characteristics

Personal characteristics of children may place them at risk for abuse and long-term adjustment problems. Physically abused children are typically young (0–5 years) and both sexes are equally represented. This is different from sexual abuse where older girls are the more common victims. Comparisons of abused and non-abused children show that many child attributes are often associated with abuse. Of course, such studies cannot identify which child characteristics are risk factors for abuse and which result from abuse. Examination of these factors suggests that the following child characteristics may be risk factors for abuse since they place additional demands upon parents: prematurity, low birth weight, developmental delays, frequent illness, difficult temperament, and oppositional and aggressive behaviour.

In contrast, bright children of easy temperament, with positive personality traits (emotional stability, extraversion, conscientiousness and agreeableness) who are physically healthy place fewer demands upon their parents and so these attributes are protective factors. A variety of factors may be protective in terms of long-term adjustment. Children who are abused at a very early age and sustain no neurological damage have a better outcome. High self-esteem, an internal locus of control, high self-efficacy and an optimistic attributional style may all be important personal protective factors. Other potentially important personal protective factors for long-term adjustment include mature defence mechanisms and functional coping strategies, particularly good problem-solving skills and a capacity to make and maintain friendships.

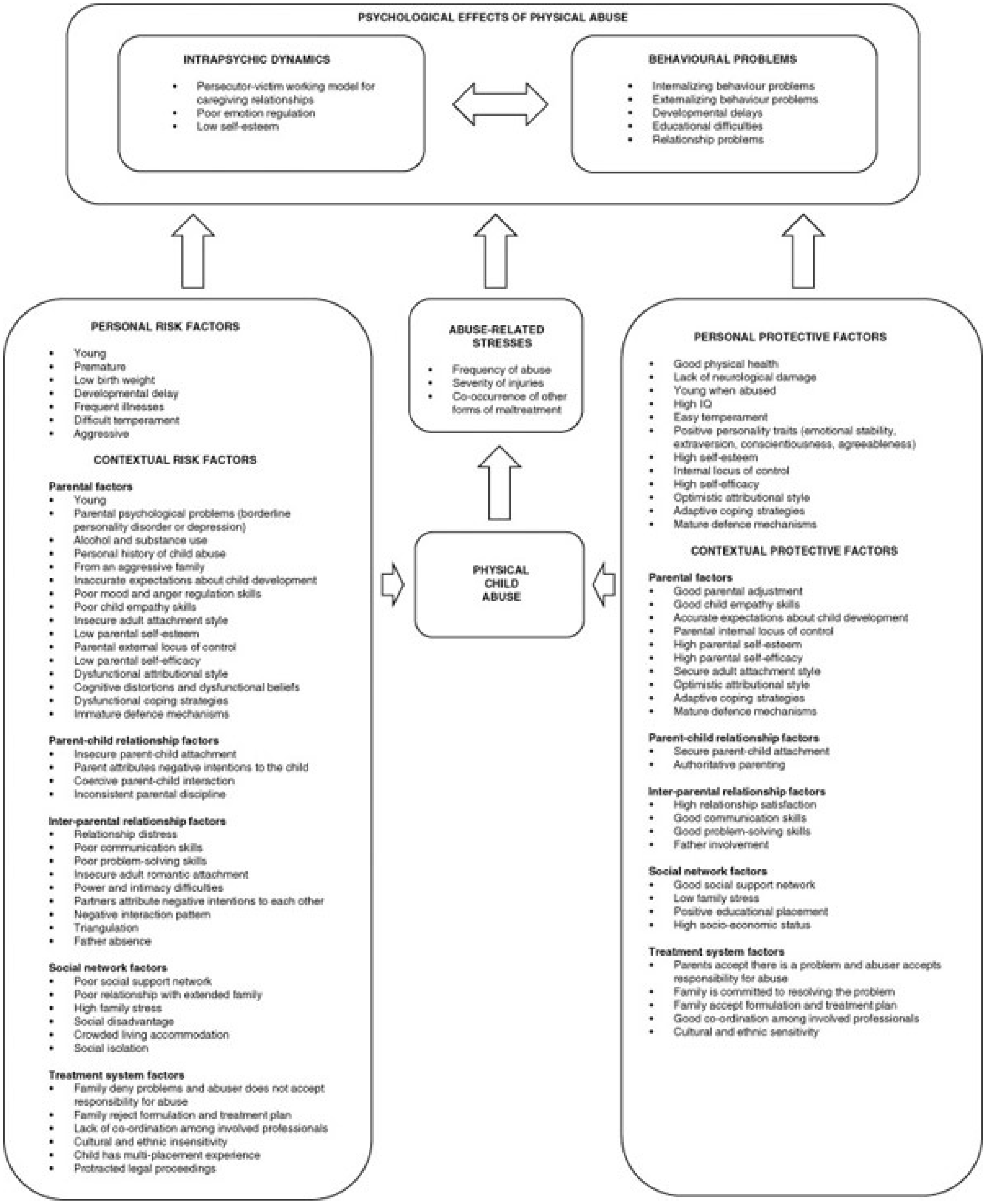


Figure 19.2 Risk and protective factors to consider in the assessment of physical child abuse

Parental factors

Personal characteristics of the parents may place them at risk for physically abusing their children. Young parents are more likely to abuse their children than older parents. While many studies report that physical abuse is more commonly carried out by mothers, fathers may be more likely to abuse their children when the phenomenon is studied from the point of view of opportunities. That is, fathers may carry out more acts of physical abuse per hour of time they spend in the role of the child's primary caretaker. However, since mothers tend to spend far more hours in this role, overall, more acts of physical child abuse are carried out by mothers. This is different from sexual abuse where more perpetrators are male.

Parents from families with pro-aggressive attitudes are more likely to abuse their children. Better controlled studies indicate that about 30% of people abused as children go on to abuse their own children. The mechanisms of transmission probably involve the development of certain personality characteristics that make it likely that aggression will be used in stressful caregiving interactions and the introjection of internal working models for caregiving relationships that involve aggression. A variety of learning mechanisms are probably involved including modelling, direct reinforcement of aggressive behaviour, coercion training and inconsistency training. With inconsistency training, the parent–child interactions are so unpredictable that the child actively initiates coercive interaction cycles because they are the only predictable types of interaction in their family life.

Psychological disorders, including depression, borderline personality disorder and substance misuse, are more common among parents who abuse their children than those that do not. These disorders are associated with low self-esteem, low self-efficacy, an external locus of control, immature defences and poor coping strategies. However, poor emotional regulation (leading to depression, aggression and substance misuse) and poor empathy skills are two of the most important components of these broader psychological disorders from the point of view of increasing risk. It may be these characteristics which partially underpin the intergenerational transmission of abuse. Poor empathy skills are a particular handicap for parents since sensitive parenting necessitates reading the child's signals and inferring the child's emotional state. Poor personal emotional regulation is also a handicap because parents may have difficulty prioritizing the need to respond to the child in a way that regulates the child's emotional state since they are unable to carry out this function for themselves. Rather they find themselves descending into a pit of depression or flying into a rage of anger and feel powerless to regulate these extreme emotional states. They also have difficulty reducing stresses associated with the wider social context in which they live. These include crowding, social isolation and financial problems.

Good parental adjustment, in contrast, is a protective factor. Where parents have an internal locus of control, high self-efficacy, high self-esteem, a secure adult attachment style, an optimistic attributional style, mature defences, functional coping strategies, and a capacity to empathize with their child they are better resourced to manage the demands of childcare constructively. Accurate knowledge and expectations about child development is also a protective factor.

Parent–child relationship factors

The parent–child relationship in cases of physical abuse is typically conflictual. Research on attachment, social cognition and behavioural interaction offers a number of clinically useful insights into these conflictual parent–child relationships. The introjection of inadequate internal working models of attachment in caregiving relationships offers an overarching framework for understanding the many difficulties that have been found to characterize unsatisfactory parent–child relationships associated with physical abuse. Many parents who physically abuse their children have not experienced parental sensitivity to their needs, nor have they experienced their parents as a secure base from which to explore the world. These parents therefore have no cognitive model to use as a basis for responding sensitively to their children's needs and to their children's requirement for a secure base.

Abusive parents' behaviour with their children is guided by a negative cognitive set. This cognitive set leads abusive parents to have unrealistically high standards for young children's behaviour and a negative bias in judging their children, and so they experience many of their children's behaviours as negative. They attribute these negative behaviours to internal, global, stable factors, particularly the child's intentional defiance.

This negative cognitive set probably underpins those behavioural patterns which have been found to uniquely characterized parents and children who have been involved in abuse. These patterns are typified by a lack of positive reciprocity, a high rate of negative reciprocity and a high rate of disciplinary encounters which escalate in severity. Parents who abuse their children control by punishment, not positive reinforcement, and the punishments which are often severe are out of all proportion to the child's transgression of the parent's rules for good conduct. In families where abuse occurs, children do not respond consistently to such parental control. Parents become frustrated by this ineffectiveness but have difficulty analysing why their approach to parenting is ineffective. They also have difficulty generating and testing out alternative solutions.

In contrast to this negative parent–child interaction style, which places youngsters at risk for further abuse and long-term abuse-related adjustment difficulties, secure parent–child attachment and authoritative parenting are central protective factors, particularly if they occur within the context of a flexible family structure in which there is clear communication, good problem solving and high relationship satisfaction, and both parents share the day-to-day tasks of childcare.

Inter-parental relationship factors

Conflict, relationship distress, poor problem-solving and communication skills, insecure romantic attachment between parents, negative behaviour patterns, and negative belief systems are the main features of the marital relationship which place youngsters at risk for child abuse, recurrence of abuse, and later abuse-related adjustment problems. Unresolved conflict is very common among parents who physically abuse their children. Conflict and relationship distress underpins the structural instability characterized by a history of multiple separations and a low level of commitment which typifies these relationships. Partners have difficulty meeting each other's needs for an acceptable level of intimacy and an equitable distribution of power. Conflict about intimacy often centres on the women in these relationships demanding more psychological intimacy and the men demanding more physical intimacy. Conflict about power may emerge in discussions about the division of labour within the household and about the way money is used.

These conflicts often remain unresolved because the couples lack the communication and joint problem-solving skills necessary for negotiation. Rather than using active listening skills to share information about how they would like their needs for power and intimacy met and then flexibly negotiating about these, they make inferences about this information based on those aspects of their partner's behaviour to which they selectively attend and rigidly make demands based on the belief that in any negotiation there is a winner and a loser. These couples have difficulty conceptualizing a conflict being resolved to the satisfaction of both parties (i.e. a win–win resolution).

This process of inferring partner's needs based on observations of their behaviour leads to further problems because such couples typically have negative cognitive styles. That is, both partners selectively attend to negative aspects of each other's behaviour and make personal attributions rather than situational attributions for negative behaviour. They attribute global, stable, negative intentions to their partners. The also attribute all positive actions of their partners to external situational factors.

This negative cognitive style along with the belief that in any negotiation there must be a winner and loser in turn promotes negative patterns of interaction. These patterns of interaction are characterized by blaming rather than empathy and escalating negative exchanges rather than positive exchanges. These negative exchanges may escalate into physical violence. Violent, abusive marital relationships and violent parent–child relationships may be two aspects of a violent family culture. The negative cognitive sets and negative patterns of interaction that characterize these marriages lead to a situation where these couples work on a short term quid-pro-quo system, not a long-term goodwill system. Often the child is triangulated into negative exchanges between the parents. For example, a father may refuse to feed or change the child or tolerate the child's crying because the mother has not met the father's need for power or intimacy.

In contrast to these risk factors associated with the parents' relationship, satisfying and structurally stable marriages in which the couple is able to use communication and problem-solving skills to resolve conflicts about power and intimacy may be viewed as protective factors. These relationships are protective because they offer a context within which parents are supported and buffered against the stressful demands of childcare.

Social network factors

We live in a culture that tolerates a high level of violence in media entertainment, sport, corporal punishment and the penal system. It is against this cultural backdrop that physical child abuse occurs. Low socio-economic status, poverty, unemployment, poor housing, single-parenthood and a low educational level are all risk factors for child abuse. Low socio-economic status may lead to abuse because it is associated with greater overall life stress and fewer resources such as day-care programmes, crèches and nurseries. People with a low socio-economic status may have less well-developed verbal skills for conflict resolution and this may lead to the use of violence as a way of resolving conflicts. A third alternative is that people with low socio-economic status may hold pro-aggressive parenting beliefs that legitimize physical punishment.

Parental isolation and a low level of social support is associated with physical child abuse. It is the quality and not the number of supports that is crucial. Probably two mechanisms underpin parental isolation. On the one hand they may live in neighbourhoods where there are few opportunities for social interaction and where they are distant from their families of origin and friends from school-going years. On the other hand, abusive parents may have a personal style that leads them to view others as threatening and so they do not initiate social interactions, or they may initiate interactions in a way that leads others to avoid them.

Parental isolation often includes isolation from the parents' families of origin. This isolation may be associated with unresolved conflicts between the parents and the grandparents of the abused child. So, it is not only the case that the grandparents may be unavailable as a source of support, but they also may be perceived as a potential threat or source of stress.

A variety of environmental stressors, most notably crowding and inadequate housing, are associated with child abuse. Remaining with a crying child in cramped living quarters requires considerable frustration tolerance, and so it is understandable that crowding may be one of the factors that sets the stage for the occurrence of abuse.

In contrast to these risk factors, protective factors within the child's broader social network include high levels of support, low levels of stress and membership of a high socio-economic group. Where families are embedded in social networks that provide a high level of support and place few stressful demands on family members, then it is less likely that parents' resources for dealing with childcare will become depleted and abuse will occur. The availability of a well-resourced pre-school placement may also be viewed as a protective factor.

Treatment system factors

A number of features of the treatment system, which includes the family, the treatment team and involved professionals and agencies, may place the child at risk for either repeated abuse, poor response to treatment or abuse-related adjustment difficulties. Denial of family problems; the perpetrator's refusal to accept responsibility for abuse; rejection of the treatment team's formulation; and refusal to co-operate with the treatment plan may all be viewed as risk factors. Where there is a lack of co-ordination among involved professionals, this increases the risk of further abuse. Multi-placement experiences and protracted legal proceedings have a negative impact on long-term adjustment. A detailed discussion of problems associated with multi-placement experiences is given in Chapter 22. Treatment systems that are not sensitive to families' cultural and ethnic beliefs and values may put families at risk because they may inhibit engagement or prompt dropout from treatment and prevent the development of a good working alliance.

In contrast to these risk factors certain features of the treatment system may be viewed as protective insofar as they reduce the risk of further abuse and enhance the possibility of positive changes within the child's psychosocial environment, which in turn reduce the risk of long-term abuse-related adjustment problems. Within the treatment system, co-operative working relationships between the treatment team and the family and good co-ordination of multi-professional input are protective factors. Treatment systems that are sensitive to families' cultural and ethnic beliefs and values are more likely help families engage with and remain in treatment, and foster the development of a good working alliance. Families are more likely to benefit from treatment when all family members accept that there is a problem and the abuser accepts responsibility for the abuse. Acceptance of the formulation of the problem given by the treatment team and a commitment to working with the team to resolve it are also protective factors.

Comprehensive assessment schedule

The overarching aim of case management in cases of physical child abuse is to provide the child with a safe environment which fosters development and an opportunity to sustain relationships with both parents with a minimum of disruption and change in the child's environment, providing sustaining such a relationship with the parents does not place the child at risk for further episodes of abuse. In this context it is worth mentioning that surveys of abused children consistently show that the majority of abused children continue to feel loyalty to their abusing parents and to feel loved by them (Herzberger et al., 1981). Case management usually occurs within a statutory framework. The child is held in foster care under an appropriate statutory care order or in the custody of the non-abusing parent until a full assessment has been completed and a plan for long-term management developed. This is then presented to the case conference and a decision made on implementation of the plan.

The comprehensive assessment should cover all risk factors in the model set out in Figure

19.2 along with a reconstruction of the abusive incident following the sequential model set out in Figure 19.1. The reconstruction of the abusive incident will help to pinpoint those factors that need to change in order for it to be safe for the child to return to the custody of both parents. Ideally the comprehensive assessment should be carried out by a team rather than a single professional over a series of interview and observation sessions. A comprehensive child protection assessment schedule of interviews and assessment procedures is presented in Table 19.2. This schedule is based on a number of principles. First, it is assumed that to assess the wide variety of factors involved in child abuse cases, every significant family member or involved professional within the abused child's network should be interviewed to give their views on risk factors, the abusive incident and ways in which they might contribute to preventing future episodes of abuse. Second, it is assumed that specialist medical or psychological assessments of the child and occasionally the parents may be necessary. Third, it is assumed that it is necessary, in addition to interviewing, to observe interactions between key members of the network. For example, it is particularly important to observe the primary caregiver and the child interacting to assess the quality of this parent–child relationship. This type of assessment may be conducted by observing parent–child interaction during access visits to the foster home where the child is placed. It is also important to observe the parents engage in joint problem solving about a childcare issue, such as how they should conduct themselves on access visits. Fourth, it is assumed that the capacity of the parents and the members of their network to engage in treatment must be assessed.

Table 19.2 Components of a comprehensive child protection assessment package for use in cases of physical child abuse

Evaluation target	*Evaluation methods and areas*
Child	• Individual interview with child (if the child is old enough) to assess personal strengths and resources (including assertiveness) and his or her account of the abusive incident; perception of all relevant risk factors; and wishes for the future • Medical examination of the child's injuries • Assessment of weight and height compared to national norms for children of the same age • Psychometric assessment of the child's cognitive and language development (if appropriate) • Child behaviour checklist to assess behavioural difficulties
Parents	• Individual interviews with parents to assess acceptance or denial or responsibility for abuse, parenting skills and deficits, personal resources and problems, reconstruction of the abusive incident and perception of all relevant risk factors • Psychometric assessment of specific parental characteristics (if appropriate) such as intelligence and psychopathology
	• Parent–child interaction observation sessions to assess positive

Parent–child interaction	• Parent–child interaction observation sessions to assess positive aspects of parenting and risk factors associated with parent–child interactions • With physical abuse, emotional abuse and neglect, a brief trial (two sessions) of parent–child therapy to assess their responsiveness to behavioural coaching to increase the number of positive exchanges and decrease the number of negative exchanges
Marital couple	• Marital interview to assess marital risk factors especially joint communication and problem-solving skills for dealing with childcare issues and conflict management • A brief trial (two sessions) of couples therapy, to assess the couple's responsiveness to coaching in joint communication and problem-solving skills for managing childcare issues • Psychometric assessment of each spouse's perception of marital relationship (if appropriate)
Family accommodation	• Visit to family residence to assess crowding, hygiene, safety of the home for the child, and opportunities for age-appropriate cognitive stimulation and play
Role of extended family	• Individual interviews with other members of nuclear and extended family to assess their acceptance or denial of the abuse, their perception of risk factors, their reconstruction of the abusive incident (if appropriate), and their childcare skills and deficits • Joint interviews with extended family and nuclear family to observe quality of their relationship to nuclear family and assess potential for support
Role of other involved professionals	• Individual interviews with other involved professionals from health, education, social services and justice to obtain their expert view of risks and resources within the family and their potential future involvement in supporting the family or providing services • Joint interviews with other community based resource people such as the foster parents with whom the child is temporarily based, home-help, befriender, leader of mother and toddler group, director of nursery or day-care facility, etc. to observe relationship to parents and assess potential for supporting the family in future

Judging treatability

The issue of treatability of cases deserves special attention because available evidence suggests that not all families in which child abuse has occurred can benefit from treatment. The checklist set out in Table 19.3 offers a framework for assessing a family's capacity to engage in treatment. It is based on the literature evaluating the efficacy of rehabilitation programmes in this area (Jones, 1987; Skuse & Bentovim, 1994). Where parents accept responsibility for the abuse, are committed to meeting their child’s needs, are committed to improving their own psychological well-being, and have the ability to change, the prognosis is good. In such cases it is worth allocating scarce resources to treatment. Where three of these conditions are met the prognosis is fair. Where fewer than three of these conditions are met, it is unlikely that even the most skilful professional team would be able to offer a viable treatment package. In such instances foster care should seriously be considered as the least damaging option for the child.

Table 19.3 Checklist of four conditions that predict positive treatment response in families where child abuse has occurred

1. Acceptance of responsibility for abuse	• Do the parents accept responsibility for abuse (or neglect)? • Do parents blame the child for provoking the abuse? • Do the parents deny that the abuse occurred?
2. Commitment to meeting their child’s needs	• Do the parents accept that they have to change their parenting behaviour in order to meet their child’s needs? • Are the parents committed to using available local resources (such as family-based parenting programmes or home-visiting programmes) to improve their parenting skills? • Can the parents place the child’s needs ahead of their own needs?
3. Commitment to improving their own psychological well-being	• Do the parents accept that their own psychological problems (depression, substance abuse, anger management problems, marital discord) compromise their capacity to meet their child’s needs? • Do the parents deny that they have psychological problems? • Are the parents committed to using available help (counselling, therapy or self-help group membership) to improve their psychological well-being?
4. Ability to change	• Do the parents have the cognitive ability to learn the skills necessary for meeting their child’s needs? • Do the parents have the personal flexibility to change their parenting behaviour? • Do the parents have the emotional strength to follow through on parenting programmes, counselling programmes, home-visiting or self-help group programmes which require considerable tolerance for frustration? • Do the parents have the capacity to maintain a co-operative relationship with the local team of professionals who will offer the overall child protection rehabilitation package?
Will definitely benefit from treatment	4 conditions are met
Will possibly benefit from treatment	3 conditions are met

Unlikely to benefit from treatment	2 or fewer conditions are met

Treatment

Where a family meet at least three of the conditions which suggest that they may respond positively to treatment, therapeutic plans may be developed which are clearly linked to achieving specific concrete goals identified in the assessment. Typical goals and related interventions are set out in Table 19.4.

Treatment for families where child abuse has occurred, in addition to having clearly defined goals, typically involves a multi-systemic intervention package including a number of the interventions listed in Table 19.4 (Allen & Kronenberg, 2014; Azar & Wolfe, 2006; Cicchetti, 2004; Dale, 1986; Donohue et al., 1998; Edgeworth & Carr, 2000; Jones, 2008; MacDonald, 2001; Nicol et al., 1988; Runyon & Urquiza, 2011; Schuerman et al., 1994; Timmer & Urquiza, 2014). However, it is important that these components be prioritized. Unless there is good reason to do otherwise, priority should always be given to intensive family-based treatment with the parents and the abused child. The central aim of this intervention should be preventing the occurrence of negative cycles of interaction and promoting positive exchanges between the parents and child. Ideally this should involve intensive contact of up to three sessions per week over a 3-month period (e.g. Nicol et al., 1988). Interventions which target the parents and aim to increase their childcare knowledge and skills and manage their own personal difficulties are a second priority. Intensive input for the child in a specialist day-care or nursery setting is a third priority. Couple therapy is a fourth priority and intervention to the wider system including the extended family should be the fifth priority.

Around a central core of intensive family-based treatment other components of the multi-systemic intervention package should be organized. The parents may work with a therapist or facilitator in an individual, couple or group format, and the children may work with another professional such as a psychologist, teacher, speech therapist or play therapist in individual or group-based programmes.

Table 19.4 Goals that may be targets for specific interventions in cases of child abuse and neglect

Locus	*Goal*	*Intervention*
Child	• Increasing the child's self-esteem • Increasing the child's cognitive and language skills • Increasing parents'	• Specialist nursery or pre-school placement • Training parents in age-appropriate cognitive stimulation for their children • Support group for physically abused children or adolescents

Parent	knowledge of child development • Increasing parents’ capacities to control their anger and impulsivity • Help parents regulate their negative emotions particularly anxiety and depression • Help parents control drug and alcohol use	• Parent training, education and support groups • Anger control training • Cognitive or interpersonal therapy for depression • Treatment for alcohol or drug use
Parent–child relationship	• Improving parenting skills • Increasing frequency of positive parent–child interaction • Increasing the accuracy of the parents’ expectations of the child • Helping the child develop regular eating and sleeping routines • Reducing child’s behavioural problems	• Family based treatment focusing on coaching parents in positive parent–child interaction skills and methods for managing eating and sleeping routines and behaviour problems
Couple	• Increasing positive exchanges • Increasing positive communication within the couple • Improving joint-problem-solving skills • Increasing affective self-disclosure, empathy and insight into dysfunctional relational patterns	• Couple therapy • Communication skills training • Problem-solving skills training
	• Increasing social	• Family-based treatment which aims to elicit

Wider social context	support from the extended family or the community for the parents - Reducing stress associated with poverty and the size of the family's living quarters	support from the extended family - Arranging parent support home-visiting service - Referral to parent support groups, mother and toddler groups, or babysitting circle - Arranging periodic relief in foster care - Arranging welfare payments - Referral for career counselling - Liaising with housing authority

When engaging these families in treatment, it is particularly important to have a clear treatment contract, with specific goals, a clear specification of the number of treatment sessions and the times and places at which these sessions will occur. Such contracts should be written and formally signed by the parents, the psychologist and the statutory social worker. Many families in which child abuse occurs have both financial problems and organizational difficulties. Non-attendance at therapy sessions associated with these problems can be significantly reduced by using a home visiting format wherever possible or organizing transportation if treatment must occur at a clinic. The following sections offer some guidelines for implementing different aspects of a multi-systemic intervention package.

Treatment focusing on parent–child interaction

The broad aim of treatment sessions targeting parent–child interaction is for the whole family to acknowledge that the parent abused the child, is no longer denying this, wishes to atone for this injustice, and wishes to take concrete steps so no further abuse will occur. Effective family intervention programmes, while premised on a broad-based assessment and directed towards this overall goal, have focused on very specific parenting problems, with one target being tackled at time using systematic behavioural principles (Borrego et al., 2014; Brunk et al., 1987; Edgeworth & Carr, 2000; Kolko & Swenson, 2002; Nicol et al., 1988; Webster-Stratton, 2014). The following principles are useful in guiding the development of such programmes. Psychologists should work with parents intensively (1–3 sessions per week for 3 months). Wherever possible, sessions should occur in the home rather than the clinic. Within sessions, the therapists role is that of a coach. The parents and child are coached in how to engage in positive exchanges and avoid negative exchanges. Between session, parents and children practice what has been learned in the sessions. As families successfully achieve targets, the frequency of the sessions is reduced.

Target behaviours should be highly specific and easy to count so progress can be easily monitored by parents using a simple recording system. Smaller targets should be tackled before larger targets are attempted. Typical targets for families with pre-schoolers include developing a positive parent–child play sequence like that described in Table 4.4 and engaging in it once a day; managing episodes of crying so that they end with the child being soothed by the parent; developing a pre-sleep routine like that described in Chapter 6; and managing feeding-time routines without fights. For every target that involves reducing a negative behaviour or exchange (such as a parent shouting at a child or a child crying) a positive target should also be selected (such as the parent cuddling the child or the child playing).

For positive behavioural targets, there should be an emphasis on developing clear daily routines involving these targets. Thus, if the target is for the parent and child to play together without conflict for 15 minutes per day using the skills for supportive play listed in Table 4.4, a routine needs to be evolved where the parent and child in preparation for this 15-minute period go to a particular room at a particular time each day and run through a particular sequence of anticipatory exchanges such as 'It's nearly playtime for Mummy and Billy. What is it? It's nearly playtime for Mummy and Billy. What is it? Yes it is,' and so forth. This sequence is appropriate for a pre-schooler. Older children will require more age-appropriate exchanges.

Parents should be coached in how to neutralize the effects of negative cognitive sets or marital conflict before attempting to engage in anticipatory routines leading up to a target behaviour. Re-framing and re-labelling are the main skills parents need to be taught to break out of negative cognitive sets. Re-framing involves interpreting an ambiguous behavioural sequence in a positive or empathic way rather than by attributing negative intentions or qualities to the child. For example, in a situation where a child began crying when the mother answered the phone, the mother interpreted this ambiguous sequence to reflect 'the 8 month old child's wish to prevent her from talking to her sister on the phone'. The mother was invited to re-frame this situation as one in which 'the child was startled by the phone ringing and disappointed at the loss of the mother's exclusive attention'.

Re-labelling involves using a positive adjective to label the child rather than a negative one, if the response that led to the labelling is sufficiently ambiguous to allow this. For example, a mother who labelled her 4 month old child as a 'brat' any time he cried was encouraged to replace this internal, global, stable labelling with situational labels, like 'you sometimes cry when you're hungry, don't you?' Using re-framing and re-labelling is a skill parents who have abused their children must overlearn to correct their negative cognitive sets. Negative cognitive sets often interfere with setting up positive routines.

Couple conflict can also interfere with setting up positive parent–child routines. Methods for working with couples will be described in more detail later. However, here it is sufficient to say that the primary caregiver's partner (who is usually the father) must be given a specific role in the anticipatory routine that precedes episodes of positive caregiver–child interaction, otherwise there is a risk that the routine will be interrupted by conflict within the couple. This is often motivated by jealousy on the part of the father. This inclusion of both parents in the anticipatory routine means that it is important for fathers to attend at least some of the parent–child sessions. In some instances, fathers may wish to take on the role of primary caretaker. In these cases mothers will require coaching in how to support the father in this role. (However, in my clinical experience, this type of situation is unfortunately not common.)

Shaping should be used as a central therapeutic method. That is, successive approximations to the target behaviours should be rewarded. The therapist should praise the parent and child for successive approximations to positive interaction. The parent may be coached in how to praise the child for successive approximations to age-appropriate positive behaviour.

The main emphasis should be on the use of rewards or positive reinforcement to shape behaviour and reach targets. Parents may be praised by therapists and parents may be trained in how to use rewards including praise, reward systems like that in Table 4.5, star charts and prizes for children who accumulate a certain number of stars.

Punishment should be avoided and parents may be coached in how to anticipate problem behaviour on the part of the child and attempt to avoid it by distracting the child or ignore it if problem behaviour occurs. Where parents are taught to use time-out routines, following the guidelines in Table 4.6, it is very important to frame these as brief episodes of no more than a couple of minutes in which the child has no access to positive interaction with the parent. Time-out periods should terminate when the child has been in time-out for 3 minutes or has stopped protesting about being in time out for 30 seconds. Immediately after time-out, the parent must engage in a positive event with the child and re-establish positive parent–child interaction. There is a danger that time-out will be used as an excuse to punish children by excluding them from positive experiences for long periods. It is therefore important that parents come to view time-out as ‘time-out from positive family experiences for a brief period to allow the child an opportunity to regulate emotions’.

Parents should be encouraged to keep written records of progress and to celebrate success in reaching targets. There should also be an acceptance that relapses will occur and that therapists and parents will meet patches of resistance where co-operation problems occur from time to time, and these should be managed in the ways suggested in Chapter 4. Parent–child interaction therapy is a particularly useful structured evidence-based intervention for facilitating the development of parent–child relationships in families where physical abuse has occurred (McNeil & Hembree-Kigin, 2010).

Parent-focused interventions

Effective individual interventions for the parents fall into two broad categories (Edgeworth & Carr, 2000). In the first are those interventions which aim to improve parenting skills and knowledge about child development. In the second are those which aim to help parents with other psychological problems which are not exclusively associated with the parenting role such as anger management, mood regulation and drug abuse.

Parent-craft and child development classes are most effectively offered in a group format to as homogeneous a group of parents as possible. For example, it is useful if parents of pre-schoolers attend a different group than parents of primary school children. A structured curriculum covering the needs and competencies of children who fall into the same age-band as the group members' children should be covered. For example, where group members' children are pre-schoolers, the curriculum should cover child development up to the age of 5. The curriculum should be organized in such a way that parents are given a conceptual understanding of a topic followed by a practical exercise in which they plan in pairs how they will put this new knowledge into practice in caring for their child. Their success with this plan should be reviewed in the next session. This 'plan-do-review' process underpins all effective skill development. For example, with language development, some of the material in Chapter 1 could be presented in simplified form and parents could be asked to plan a 15-minute play session with their child in which they stimulate conversation about a topic of interest to the child. In the next session each parent could report on how these conversations went. With pre-schoolers, the range of topics should include attachment, the development of sleep, feeding and elimination routines, motor development and sensorimotor play routines, language development and parent–child language games, cognitive development with a particular emphasis on pre-operational egocentrism, the development of emotional control through using inner speech, and children's friendships.

Individual or group work with parents to help develop anger and mood-regulation skills should offer parents a way to conceptualize how in specific situations they are likely to become apparently uncontrollably angry, sad or anxious, and then provide them with a way of controlling their emotional states in these situations. The cognitive-behavioural Alternatives for Families programme is an evidence-based intervention for families in which physical abuse has occurred that focuses, among other things, on these issues (Kolko & Swenson, 2002). Cognitive techniques allow parents to develop control over their emotional states by changing their thoughts which underpin negative mood states. Parents are trained first to identify antecedent situations that lead to negative emotional states such as anger, fear or sadness. Then, training focuses on helping parents to listen to what they tell themselves in these situations and to notice how these stories parents tell themselves (automatic thoughts) determine their emotional states. For example, with one mother, any time she received a compliment she felt very sad. This mood occurred because she automatically told herself that the only reason she had received a compliment was because the other person saw just how pathetic she was and so was trying to cheer her up. In therapy, she was helped to look for alternatives to this interpretation and find evidence to support these alternative interpretations. On one memorable occasion, she reported that she could accept a compliment as a reflection of her competence rather than people's pity for her. She had found a child wandering in the car park outside the supermarket and returned her to her parents. She said that when she returned the child to the parents she understood their gratitude, because she knew what it was like to lose a child and have it returned. This experience allowed her to begin questioning how she misinterpreted many compliments she was paid so that they led to depression rather than joy.

Another mother said that her child's crying always led her to feel angry. She found that this occurred because she automatically told herself that her child's crying was his way of saying that he didn't like the feed she gave him, or the way he played with him, or the way she dressed him and so on. These critical intentions which she attributed to the child made her feel angry because she then felt unappreciated despite all she had done for her son. Part of her therapy focused on helping her to question these stories that she told herself about her 5 month old son's intentions each time he cried and to offer a more plausible and less critical alternative, such as 'he might have wind because he's just had a feed.'

Behavioural interventions for anger, sadness and anxiety help parents by providing them with routines that break behavioural patterns associated with negative mood states. For example, with anger, parents may be trained to identify trigger situations and then to use an avoidance strategy when they encounter these trigger situations, such as leaving the room, counting to 10, or engaging in relaxation exercises. With sadness, daily pleasant events may be scheduled and graded activity schedules may be used where parents plan in a gradual way to increase their daily activity levels, especially the amount of exercise they take. These interventions for depression are discussed in detail in Chapter 16. With anxiety, a variety of behavioural methods such as relaxation training and systematic desensitization may be used to help parents control these negative emotional states. These interventions for anxiety are discussed in detail in Chapter 12.

Individual or group therapy for parents which aims to foster the regulation of negative mood states may focus on interpersonal themes as well as specific cognitive and behavioural emotion regulation techniques. Many parents who abuse their children have experienced abuse, developed insecure attachment styles and internalized dysfunctional internal working models for caregiving relationships and intimate marital relationships (Baer & Martinez, 2006). Therapy may focus on articulating these internal working models and the abusive early experiences from which they have evolved. Common themes include difficulties managing power and negotiation without recourse to violence; problems with empathy and emotional self-disclosure; a tendency towards splitting and projection where people are seen as all good or all bad; feelings of engulfment or abandonment in intimate relationships and so forth. A clearer understanding of these themes and the dysfunctional relationship patterns in which they are embedded arise from this work.

Child-focused interventions

Child-focused interventions may aim to stimulate the child's cognitive and language development as well as fostering self-esteem, particularly in cases where physical abuse has occurred as part of a broader parent–child interaction pattern which includes neglect or emotional abuse (Edgeworth & Carr, 2000). These programmes are best run as pre-school group-based projects with a low teacher–pupil ratio and the cognitive and language curriculum geared to the child's developmental level. Parents should have maximum involvement in these projects and understand the rationale for the programme, the curriculum and the teaching methods and be given advice on how to extend the stimulation programme into the child's home life.

With older children, the negative self-evaluative beliefs and beliefs about power and violence in relationships that evolve in response to the experience of abuse may be addressed in individual or group therapy. The aim of such therapy is to help children understand that the abuse was not caused by them; that they are not worthless; that they are not powerless and can be assertive with adults; that differences in relationships can be managed in non-violent assertive ways; that they can have mixed feelings of anger and loyalty towards their parents (and members of the treatment team including the foster parents); and that they can, in the long term, find a personal way to forgive their parents. Older children can benefit from assertiveness training where they learn assertive alternatives to aggression for managing interpersonal differences. They may also benefit from learning cognitive and behavioural anger control skills such as those described in the previous section.

Interventions focusing on the couple

Couple-focused intervention may focus on helping couples solve conflicts without recourse to escalating angry exchanges which are displaced onto the child. Effective couples therapy involves communication skills training; problem-solving skills training; coaching in affective self-disclosure, empathy and development of insight into relational patterns which underpin relationship distress and intimate partner violence; and behavioural exchange training (Carr, 2014b; Fals-Stewart et al., 2009).

Guidelines for training in communication and problem solving are given in Tables 4.2 and 4.3 in Chapter 4. However, they will be recapped here with specific reference to working with couples. The overall strategy for training couples in refining these interpersonal skills is to explain the skills and point out how necessary they are for jointly handling stressful childcare tasks. Then couples are invited to demonstrate their current level of skill development by taking a non-emotive issue and communicating or problem solving around it. The therapist then gives feedback, first indicating the couple's competencies and then pinpointing areas where improvements are required. Once the couple show competence in managing non-emotive issues, they are invited to progress to discussing emotive issues. The therapist interrupts them when they break the rules of good problem solving or communication and coaches them back on track. Homework assignments which involve practicing these skills are also given.

In communication training, couples need to be trained in both listening and in sending clear messages to each other. Listening skills include giving attention without interruption, summarizing key points made by their partner and checking that they have understood accurately. Skills required to send clear messages include discussing one problem at a time; being brief; deciding on specific key points; organizing them logically; saying them clearly; checking that they have been understood; and allowing space for a reply. Couples are encouraged to make congruent 'I' statements such as 'I would like to watch *Into the West*' rather than 'you' statements such as 'you would love *Into the West*' or declarations such as 'everyone knows that *Into the West* is a great film.' Couples are praised for avoiding negative mind-reading, blaming, sulking, name-calling or interruptions, all of which interfere with clear communication.

Problem solving involves defining large, vague and complex difficulties as a series of smaller and clearer problems; brainstorming options for solving these smaller problems one at a time; exploring pros and cons of each option; agreeing on a joint action plan; implementing the plan; reviewing progress; revising the original plan if it was unsuccessful; and celebrating if it was successful.

Once couples have been coached in the basics of communication skills and problem-solving skills, they are invited to use them to try to solve emotive problems associated with joint childcare responsibilities, such as who should feed and change the baby on specific occasions and how personal time away from the responsibility of childcare should be organized for each person. The therapist may praise couples for using skills correctly and get them back on track when they fail to use problem-solving and communication skills correctly. They may also be encouraged with emotive problems to declare that the problem (not their partner) makes them feel bad and to acknowledge their own share of the responsibility in causing the problem (rather than blaming their partner). They may also be encouraged to anticipate obstacles when engaging in problem solving.

For families where child abuse has occurred, core beliefs about getting needs met are often a central obstacle to solving problems and reaching mutually acceptable agreements. Parents in these families tend to frame problems in terms of how they will get their own needs met, rather than how both members of the couple and the child can get as many needs met as possible. A common theme is that everyone cannot have their needs met, and if one person's needs are met, it must be at the expense of the needs of another not being met. A related idea is that in any negotiation about family members having their needs met there must be a winner and a loser. The therapist may repeatedly reintroduce the idea that everyone can win if enough thought is given to solving a problem.

Destructive behavioural routines are a second set of obstacles to couples solving problems and reaching mutually acceptable agreements. These routines may involve attributing negative intentions to one's partner without checking these out and then either criticizing, nagging, blaming, name-calling, or citing previous instances of the partner's misdemeanours on the one hand, or withdrawing, sulking or becoming intoxicated on the other. Often anger from these types of exchanges is displaced onto the abused child.

Helping partners recognize these behavioural routines and the beliefs and feelings that underpin them is a critical part of couples work. Once they are recognized, alternatives to them may be developed. Most of these routines are based on fears that needs related to personal power, esteem and intimacy will be thwarted or a sense of being hurt when these needs have been thwarted. Alternative solutions to the escalating negative routines typically involve couples acknowledging and expressing feelings related to unmet needs and having their partner empathize with them about this. Therapists can help couples develop affective self-disclosure and empathy skills by interviewing them about these feelings and then empathizing with them. Couples may then be coached in how to interview each other about these feelings that are rarely articulated and how to empathize with each other.

Behavioural exchange training offers a way to introduce greater positive reciprocity into a relationships marked by patterns of mutual punishment and conflict. It involves inviting both partners to list specific positive activities that their partners could carry out to show that they care for them. These items must be phrased positively rather than negatively and must not be the focus of a recent argument. The couple are invited to put the lists in a visible place in the house and to make a commitment to carry out some of the items on the list for their partner each day. However, quid pro quo arrangements are to be avoided. The idea is to increase the number of positive exchanges but within the context of a goodwill ethic rather than a quid pro quo contract.

When couples engage in more positive exchanges, use communication and problem-solving skills, and engage in affective self-disclosure and empathy, solving childcare problems becomes far less stressful and far less likely to result in intimate partner violence of physical child abuse.

Intervention in the wider system

Interventions in the wider system aim to reduce stress and increase social support (Edgeworth & Carr, 2000). Such interventions must be tailored to the ecology of the family as mapped out during the assessment process. The following are common examples of interventions that fall into this category: work with the extended family to increase the amount of support they offer the child's primary caretaker; arranging a befriender, a home-help or a counsellor home-visiting service for an isolated parent; arranging participation in a local parent support self-help group; organizing a place for the child and caretaker in a local mother and toddler group; introducing the family to a babysitting circle; setting up periodic relief foster care; supporting an application for housing transfer to a less cramped residence; and referring family members to medical or other professional services to solve problems requiring specialist input.

A specialized ecological approach to foster care is described in Chapter 22 (Minuchin, 1995). Within this approach the foster parents with whom the child is placed during the comprehensive assessment are recruited as major sources of long-term support for the parents of the child. They effectively become like grandparents to the child and surrogate parents to the child's mother and father. As part of their role, during the assessment process they facilitate frequent access visits between parents and child. They also facilitate a gradual transition of responsibility for childcare from themselves to the parents when a decision is made that the child return home, with the child spending some nights at the parents' house and some at the foster parents' home. In the months that follow they offer temporary respite care.

Countertransference reactions and polarization in therapy teams

Working with cases of child abuse evokes strong feelings in all of us (Carr, 1997). In cases of physical child abuse, the two commonest countertransference reactions are *rescuing the child* and *rescuing the parents*. In the former reaction, the urge is to protect the child at all costs and to deny any loyalty that the child may have to the parents, or any competence or potential for therapeutic change on the part of the parents. In the latter reaction the urge is to protect the parents from criticism raised by other professionals and to deny any parental shortcomings. Professionals within the same system adopting these two countertransference reactions tend to polarize and have difficulty co-operating with each other and the family with whom they are working. Recognizing this polarization process and discussing it openly is one way of preventing co-operation difficulties.

Prevention

Physical abuse occurs in families characterized by high levels of stress and low levels of support when children place demands on their parents which outstrip parental coping resources, and when parents in frustration injure their children. Effective prevention programmes reduce stress, increase support, enhance parenting knowledge and skills, and promote child health so as to reduce demands children place on vulnerable parents (Daro, 2011; O'Riordan & Carr, 2002). In such programmes families at risk for physical child abuse are screened prenatally using the criteria listed in Table 19.5. They are then engaged by nurses or paraprofessionals in multi-modal community-based programmes which begin ante-natally. These programmes include home visiting, behavioural parent training, stress management and life skills training, the details of which are given in Table 19.5. The home-visiting element of such programmes is essential to maintain ongoing engagement and prevent dropout. Clinical psychologists have an important role to play in setting up such multi-modal programmes;

training and supervising staff; and monitoring and evaluating programme effectiveness.

Table 19.5 Components of physical child abuse prevention programmes

Screening	• *Child characteristics*: prematurity, low birth weight and difficult temperament • *Maternal characteristics*: teenage pregnancy, physical or mental health problems, substance abuse, chaotic lifestyle, personal adjustment difficulties, personal history of abuse or neglect, previously suspected of child abuse • *Family factors*: insecure mother–child attachment, being a single parent, lack of father involvement, lack of family support • *Social factors*: high levels of life stress, poverty, homelessness, and under-use of appropriate health and social services
Goals	• To increase parental knowledge of child development so as to modify unrealistic expectations • To help parents recognize and understand infant's signals when they require basic needs to be met • To help parents develop feeding, sleeping, cleaning and playing/stimulating routines with their infants • To help parents maintain socially supportive relationships with their partners and members of the extended family • To help parents maintain supportive relationships with health and social services professionals • To provide crisis intervention to help parents cope with psychosocial and economic crises that interfere with providing quality infant care • To help parents develop stress management skills so that stress related anger will not lead parents to injure their children • To monitor children's health and development
Home visiting	• Professionals, paraprofessionals or trained volunteers visit mothers and infants frequently at the family home • Visiting ideally beings before the birth of the child • The home visitor provides information about child development and childcare, helps with the development of parenting skills, and offers social support • The non-judgmental, supportive and empathic quality of the relationship that typifies the relationship between the home visitor and the mother are central to its effectiveness as a source of support for vulnerable or at-risk parents
Behavioural	• The parent and child regularly visit an outpatient centre and the parent develops specific parenting skills by engaging in behavioural parent training with a professional • Behavioural parent training may be provided on a group or

parent training	individual basis • The clear, precise procedures for developing feeding, sleeping, cleaning and playing/stimulating routines which are based on well-established behavioural principles are central to the effectiveness of behavioural parent training
Life skills training	• In life skills training, through modelling, instruction and guided practice, parents acquire the skills necessary to manage certain psychosocial and economic life stresses that compromise their capacity to provide quality infant care • These skills include money and household management; budgeting; dealing with health, social services, educational and financial agencies; and enhancing problem-solving and communication skills
Stress management training	• In stress management training, through modelling, instruction and guided practice, parents acquire the skills necessary to manage negative mood states such as anger, anxiety and depression that may compromise their capacity to provide quality infant care • These skills include recognizing the signs of stress early; challenging thoughts that maintain negative mood states; learning relaxation skills; changing potentially stressful situations so that they are less demanding; and using social support to reduce stress

Note: Adapted from O'Riordan & Carr (2002).

Summary

Physical abuse refers to deliberately inflicted injury or deliberate attempts to poison a child. The overall prevalence of physical child abuse is about 22.6%. Child abuse has short- and long-term physical and psychological effects. Psychological effects include the development of negative self-evaluative beliefs; dysfunctional internal working models for relationships; emotion regulation problems; internalizing and externalizing behavioural problems; cognitive and attainment problems; and relationship difficulties. The range, severity and duration of effects depend upon the nature and extent of the abuse and the balance of risk and protective factors present in any given case. Risk and protective factors include features of the child, the parents, the parent–child relationship, the marriage, the wider social network and the treatment system. Multi-disciplinary validation of cases of physical child abuse typically involves medical examination and interviews to assess the degree to which the child's injuries are consistent with the parent and child's account of the injury, the history and other relevant factors. Comprehensive assessment following validation involves interviews with all members of the child system and should cover relevant risk and protective factors and a verbal reconstruction of the abusive incident. Where parents accept responsibility for the abuse, are committed to meeting their child’s needs, are committed to improving their own psychological well-being and they have the ability to change, the prognosis is good. Where fewer than three of these conditions are met, it is unlikely that a positive treatment response will occur. Treatment should be based on clear contracts to meet specific targets. Treatment and case management plans involve a central focus on improving parent–child interaction through direct work with parents and children together. This may be supplemented with individual work for parents focusing on parent-craft and the management of personal psychological difficulties such as mood and anger regulation. Children may receive input in therapeutic pre-school placements. Intervention may also focus on helping couples enhance their mutual supportiveness and the degree to which the extended family offer support. Effective prevention programmes reduce stress, increase support, enhance parenting knowledge and skills, and promote child health so as to reduce demands children place on vulnerable parents.

Exercises

Sally, aged 19 years, and her child Ricky, aged 18 months, are referred to your team for assessment with a view to Ricky returning to the care of his mother. Ricky has been in foster care for a month following an non-accidental injury in which Sally hit him on the head with a tray because he wouldn’t stay quiet. She was watching TV and drinking beer at 2.00 am when this happened. She is very remorseful and says she will do anything to get him back except speak to his father. Jay, the father, left Sally when he found she was pregnant and hasn’t been in touch since. Sally has four older sisters. She has no contact with them or her parents. They parted on poor terms. Sally lives in an almost derelict mansion which she is caretaking for the owner who lives abroad. The social worker in this case and the foster parents are in regular conflict. The foster parents do not want the child returned to Sally because they think that she is irresponsible and a poorly skilled parent. The social worker wants the child to be returned to the mother very soon. The referral for assessment was in part motivated by this difference in views.

Exercise 19.1

Offer a preliminary formulation of the case.
Develop an assessment plan.

On the basis of the available information would you offer this family a treatment programme and what justification would you offer for your decision?

If you think this case is treatable, ideally what type of programme would you offer ?

Exercise 19.2

Role-play the first interviews with the mother; the social worker; the foster parents and reformulate the case on the basis of the information gained.

On the basis of the information arising from these interviews, would you offer this family a treatment programme and what justification would you offer for your decision?

Further reading

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Websites

American Professional Society on the Abuse of Children (APSAC): http://www.apsac.org

International Society for the Prevention of Child Abuse and Neglect (ISPCAN): http://www.ispcan.org

Chapter 20

Emotional abuse and neglect

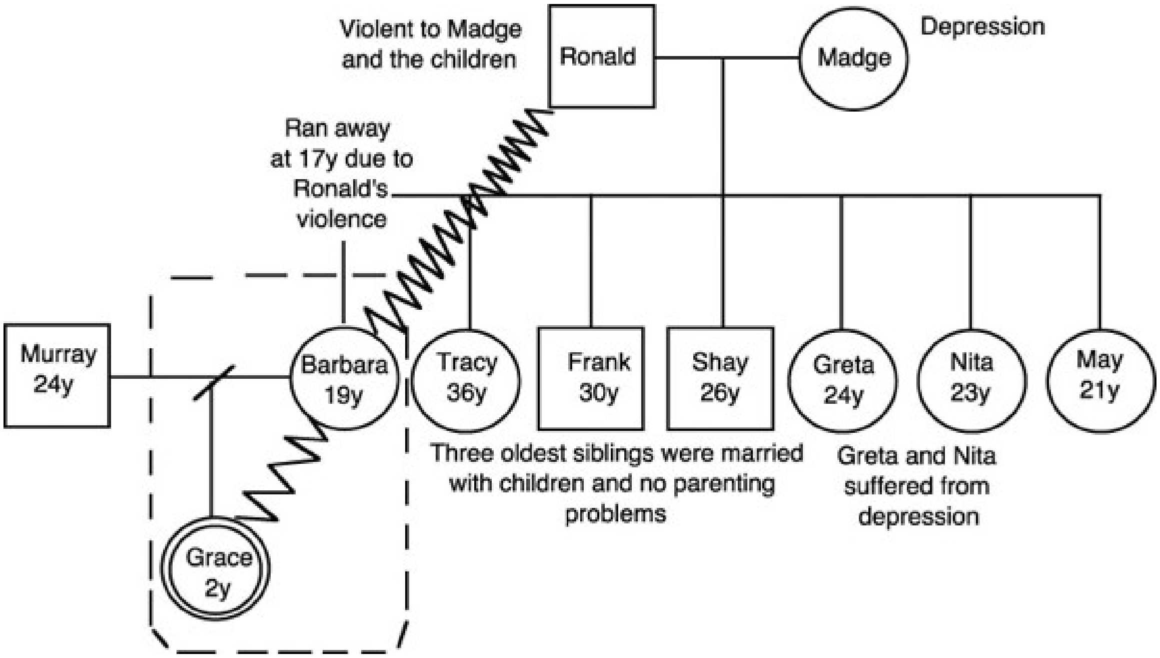
Certain parenting or childcare styles entail passive neglect or active emotional abuse of infants and children (Azar & Wolfe, 2006; Daniel et al., 2010, 2014; Department of Education, 2013; Dubowitz, 2011; Farrell Erickson & Egeland, 2011; Glaser, 2002, 2011; Hart et al., 2011; Hildyard & Wolfe, 2002; Horwath, 2007; Iwaniec, 1995, 2004; Jones, 2008; MacDonald, 2001; Reder & Lucey, 1995; Smith & Fong, 2004). There is not an international consensus in this area. Some Eastern countries endorse institutional practices for orphans that are considered neglectful in the West. In contrast, some Western practices, such as infants sleeping in separate rooms from their parents, are considered neglectful in some Eastern cultures. Neglect and emotional abuse may lead to negative physical, cognitive, social and psychological outcomes for the child. Negative physical outcomes include non-organic failure-to-thrive and psychosocial dwarfism. Relationship difficulties and attachment problems are the principal negative social outcomes for children who suffer neglect or emotional abuse. Developmental delays are the principal cognitive sequelae of these aversive parenting practices. Internalizing and externalizing disorders are the main psychological problems arising from neglect and emotional abuse. A typical case characterized by neglect, non-organic failure to thrive, developmental delay and attachment problems is presented in Box 20.1. In this chapter, after considering the definition of neglect and emotional abuse and related conditions, an approach to assessing risk and protective factors in these cases will be described. Treatment and prevention will then be discussed.

Box 20.1 A case of neglect, non-organic failure to thrive and inhibited reactive attachment disorder

Referral. Grace, a 2 year old child, and her mother, Barbara, were referred for consultation to a multi-disciplinary paediatric team by the GP because Grace's weight fell below the third centile. Her sensorimotor development, cognitive development and language were all delayed and there appeared to be problems with the mother-daughter relationship.

Family history. Barbara was one of seven children and had run away from home at

17 because of her father's violence towards her. Her developmental history was marked by constant exposure to paternal violence and abuse. Ronald regularly hit all family members including Barbara, her six siblings and her mother. Barbara's mother had been depressed throughout much of her upbringing and she was partly raised by her older siblings, who one by one left home to escape Ronald's aggression. Thus neglect, physical abuse, and abandonment had been commonplace experiences for Barbara throughout her childhood.



Barbara's three older siblings were married to highly supportive partners and all three had children. There were, according to Barbara, no significant problems within these families. Two of the three remaining female siblings had, like their mother Madge, been treated for depression. The depression was related to the father's constant violence within the home.

Barbara, had met Grace's father, Murray, at a party shortly after she ran away from home and had become pregnant by mistake during the early stages of her brief relationship with Murray. Barbara had lived as a relatively isolated single parent since the birth of Grace and had no contact with Murray. She occasionally visited her eldest sister Tracy. Her parents, Ronald and Madge, lived in another town and rarely visited, much to Barbara's relief. They disapproved of the Barbara for keeping her illegitimate child and ruining the family's reputation.

Current living situation. In a preliminary home visit, it was noted that Barbara and grace lived in a bedsit in a seaside resort. The room was sparsely furnished and there was no heating except for a single-bar electric fire which was broken when we were visiting. There were few toys, and there were no mobiles or children's pictures in the vicinity of the child’s cot.

Observations of mother–child interaction. Grace was thin with very dark circles under her eyes. She sat almost immobile in the corner of the room on the floor in dirty clothing. She responded to the psychologist’s attempts to initiate a play sequence involving dolls and bricks with an unusual degree of familiarity and a lack of anxiety about the fact that the psychologist was a stranger. When her mother, Barbara, attempted to take over the role of the psychologist in this episode of play, Grace averted her gaze and ceased to show interest in the play materials. Barbara in response, withdrew from the play sequence, telling the psychologist that this was a typical interaction and blaming the breakdown of the play sequence on the child. When, later Barbara picked Grace up to feed her, she turned her head away and said ‘No! No! No!’ She refused a bottle and some mashed banana, and what little she did eat she regurgitated and spat out.

Assessment of the mother. In a later individual interview with Barbara, it became apparent that she suffered from episodes of depression characterized by low mood, sleep problems and loss of appetite. Her score on the Beck Depression Inventory was in the clinical range. During Barbara’s episodes of depression she rarely engaged in play or sustained feeding activities with Grace. Periodically, she drank excessively or used a variety of street drugs to alleviate her sense of depression and isolation. On a couple of occasions she had gone out to the pub and left Grace alone in the bedsit, strapped into her push chair for up to two hours. Barbara had attended a mothers’ and toddlers’ group on a couple of occasions but felt rejected by the other mothers and so stopped going. She expressed little interest in personal counselling for her depression but wanted to be taught how to feed her child more effectively.

Formulation. Barbara and Grace had evolved a pattern of mother–child interaction characterized by attachment problems and neglect. A number of factors contributed to this. The primary factor was Barbara’s difficulty in attuning herself to Grace’s needs and Grace’s despondency at not being able to elicit care from her mother. Barbara’s difficulties had their roots in her own history of physical abuse and neglect and periodic episodes of depression and related drug abuse. Her depression was maintained by the lack of available social support from her extended family and peer group and the multiple economic and social stresses

Treatment. The treatment plan was to offer Barbara coaching in interacting with her child in play and feeding situations. A second element of the plan was to offer her a place in a therapeutic mother and toddler group which offered social support, parenting skills training and a cognitive therapy approach to mood regulation.

Definitions of neglect and emotional or psychological abuse

Considerable controversy surrounds the definition of emotional abuse or psychological maltreatment on the one hand and neglect on the other. The working definitions set out in Table 20.1 are based on reviews of the area (Daniel et al., 2010, 2014; Dubowitz, 2011; Farrell Erickson & Egeland, 2011; Glaser, 2002, 2011; Hart et al., 2011; Horwath, 2007; Iwaniec, 1995, 2004; Jones, 2008; Smith & Fong, 2004). Neglect and emotional or psychological abuse are two forms of child maltreatment in which particular parenting practices, usually spanning a substantial time period, may lead to adverse consequences for the child including attachment difficulties and non-organic failure to thrive.

Neglect. With neglect there is a persistent, long-standing, pervasive, passive and unintentional ignoring of the child's needs. Distinctions may be made between physical, emotional and medical/educational neglect. With physical neglect the child's physical needs for feeding, clothing, shelter and a safe environment free from danger and hazards are not met. With emotional neglect the main needs that are not met are those for nurturance, psychological warmth, comfort and an emotional 'secure base'. Other needs not met in emotional neglect include intellectual needs for stimulation, social interaction and conversation; the need for age-appropriate limit setting and discipline; and the need for age-appropriate opportunities for autonomy and independence. With medical or educational neglect parents unintentionally fail to meet their children's needs to receive medical care when physically ill; psychological help when they have mental health problems; and regular pre-school or school attendance. Typically, parents who neglect their children do not do so intentionally. Neglect arises through parents' lack of physical or psychological resources or lack of awareness of their children's needs. Physical neglect is the most common form and is related to social disadvantage and poverty. Emotional neglect is often related to a lack of knowledge, skills, emotional maturity and mental health. Parents may not know how important nurturance and stimulation are for child development. They may not have the skills for meeting the child's needs for stimulation and nurturance. With medical and educational neglect, parents, due to limited organizational skills, may be unable to arrange medical appointments or school attendance, or recognize illness, poor eating and growth patterns, or psychological difficulties in their children. They may be unfamiliar with developmental milestones and so not recognize their children's immaturity. This ignorance may have its roots in a variety of personal and contextual factors. These include a lack of exposure to good parenting models in childhood; personal experience of abuse or neglect; personal incapacities such as depression, impulsivity or alcohol and drug use; poor social problem-solving skills; marital discord or violence; a chaotic family lifestyle; and a high level of life stress involving poverty and isolation.

Table 20.1 Main features of neglect and emotional abuse

Neglect	*Emotional or psychological abuse*
There is a persistent, long-standing, pervasive, passive and **unintentional** ignoring of the child's needs. These include: • Physical needs for feeding, clothing and shelter • Safety needs for protection from danger • Emotional needs for nurturance and a secure base • Intellectual needs for stimulation, social interaction and conversation • The need for age-appropriate limit setting and discipline • The need for age-appropriate opportunities for autonomy and independence • Physical and mental health needs for treatment when physically ill or showing significant psychological problems • Educational needs for school attendance and	There is a persistent, long-standing, pervasive active and **intentional** destructive pattern of interaction with the child which includes some of the following: • Frequent spurning by criticizing, blaming, rejecting, belittling, degrading, ridiculing, shaming, humiliating, scapegoating, denigrating, or singling the child out for harsh, unfair punishment • Frequent terrorizing by threatening violence against a child or their loved ones or objects; placing the child in danger; or placing the child in unpredictable, chaotic, frightening situations (e.g. harsh, inconsistent discipline; domestic violence) • Frequent isolating by severely limiting opportunities to interact with family members, friends, supportive adults in the community, health professionals, or school staff • Frequent exploiting or corrupting by modelling or facilitating anti-social behaviour (e.g. self-harm, violence, drug use, prostitution, hatred of specific groups), or developmentally inappropriate behaviour (e.g. parentification or infantilization) • Severely restricting healthy physical, cognitive, and psychosocial development, especially the development of autonomy by, for example, inducing illness (Munchausen syndrome by proxy); extremely dominant parenting; extremely intrusive parenting; frequent withholding from school; requiring children under threat to take sides in parental disputes

support with academic work

Emotional or psychological abuse. In contrast to neglect, emotional or psychological abuse involves a persistent, long-standing, pervasive pattern in which the parent actively and intentionally spurns, terrorizes, isolates, exploits, or corrupts the child or severely restricts their development. Spurning includes criticizing, blaming, rejecting, belittling, degrading, ridiculing, shaming, humiliating, scapegoating, denigrating, or singling the child out for harsh, unfair punishment.

Terrorizing may involve threatening violence against a child or their loved ones or objects; placing the child in danger; or placing the child in unpredictable, chaotic, frightening situations. This includes the use of harsh, inconsistent discipline or exposing children to domestic violence between parents.

With isolating, parents severely limiting the child's opportunities to interact with other members of the immediate or extended family; friends; supportive adults in the community, for example leaders of sports or activity clubs or scouts; health professionals; or school staff including teachers and nursery staff.

With exploiting and corrupting, parents may act as deviant role models or intentionally facilitate anti-social or developmentally inappropriate behaviour. Anti-social behaviour may include violence, self-harm, theft, drug use, prostitution and prejudiced hatred of specific groups. Facilitating developmentally inappropriate behaviour includes requiring the child to take on roles and responsibilities appropriate for a much younger child (infantilization) or a significantly older person (for example, parentification).

With developmental restriction, parents severely limit or constrain healthy physical, cognitive, and psychosocial development. They may restrict healthy physical development by inducing illness (Munchausen syndrome by proxy). They may restrict healthy psychological development by coercing children to take sides in parental disputes, for example when parents are separating or divorcing. They may restrict cognitive development by severely limiting children's access to intellectual stimulation or frequently withholding them from pre-school or school. They may limit their social development, especially their development of autonomy, through extremely dominant or intrusive parenting

Four levels of severity of neglect and emotional abuse. Browne (2002) distinguishes between four levels of severity of neglect and emotional abuse: less severe, moderately severe, very severe and life-threatening. With less severe neglect, there is occasional withholding of love and affection; the child's weight is close to the third centile without organic cause; some developmental delay is present; and the child is unwashed. With moderately severe neglect, there is frequent withholding of love and affection; non-organic failure to gain weight; poor hygiene; and parental incapacitation due to significant mental health problems. With severe neglect, the parent is frequently unavailable to the child; the child is occasionally left alone; non-organic failure to thrive is present; severe nappy rash with skin lesions occurs; and there are frequent significant episodes of parental mental illness. With life-threatening neglect, the parent is persistently absent; the child is frequently left alone; there is non-organic failure to thrive; and the child is frequently ill and has infections due to poor hygiene.

According to Browne (2002), with less severe emotional abuse, there are occasional verbal assaults, denigration, humiliation, scapegoating and a confusing family atmosphere. With moderately severe emotional abuse, there are frequent verbal assaults, denigration, humiliation and occasional rejection. The child may also witness occasional family violence and parental intoxication. With severe emotional abuse, there is frequent rejection, occasional withholding of food and drink, enforced isolation and restriction of movement. The child frequently witnesses family violence and parental intoxication. With life-threatening emotional abuse, there is frequent rejection, failure to nurture, frequent withholding of food and drink, enforced isolation and restriction of movement. Parents terrorize and confine the child, and the child frequently witnesses parental psychotic episodes.

Treatment implications. The intentional nature of emotional or psychological abuse, in contrast to the unintentional nature of neglect, has important treatment implications. With neglect, one of the major goals of treatment is education and the provision of support. With emotional or psychological abuse, the personal and contextual factors that lead the parent to want to humiliate and reject their child must be addressed. Furthermore, cases of neglect often meet more of the criteria for treatability set out in Table 19.3 than cases of emotional abuse. Compared with cases of neglect, in cases of emotional abuse, it is less common for parents to accept responsibility for abuse and to be committed to meeting the child's needs.

Emotional abuse and neglect can lead to non-organic failure to thrive, psychosocial dwarfism, attachment disorders, internalizing and externalizing behaviour problems, and developmental delays in the emergence of sensorimotor, cognitive and language skills.

Epidemiology

In a series of meta-analyses of international studies Stoltenborgh et al. (2011, 2012, 2013a, 2013b) found prevalence rates based on self-report of 36.3% for emotional abuse, 18.4% for emotional neglect, 16.3% for physical neglect, 22.6% for physical abuse, and 12.7% for contact sexual abuse. Contact sexual abuse refers to situations where the abuser has physical contact with the child. When prevalence rates for emotional abuse and neglect are combined, this superordinate category of child maltreatment is far more prevalent than physical or sexual abuse.

Short-term effects of neglect and emotional abuse

In the short term, neglect and emotional abuse can lead to parent–child attachment problems, non-organic failure to thrive, psychosocial dwarfism, and developmental delays. These problems will be discussed here.

Attachment problems

About 65% of children develop secure attachments. The remainder develop insecure attachments (Zeanah et al., 2011). Two insecure attachment patterns recognized in both DSM-5 (APA, 2013) and ICD-10 (WHO, 1992) are given in Table 20.2, and each has a distinctive aetiology and presentation (O'Connor et al., 2012). The first, (inhibited) reactive attachment disorder, is associated with abuse and neglect. Specifically, it is associated with a rejecting or punitive parenting style or a parenting style where the parent is not promptly and appropriately responsive to the child's signals that it needs something from the parent. It is characterized by contradictory or ambivalent approach–avoidance social responses typically displayed during partings and reunions; emotional disturbance characterized by misery and withdrawal or aggression; and fearfulness and hypervigilance. The second disorder of attachment, disinhibited social engagement disorder or disinhibited attachment disorder, is associated with the lack of a stable consistent caregiver. It occurs in children brought up in institutions or who have had multi-placement experiences, and very limited opportunities to form attachments with a single caregiver. It is characterized by clinging behaviour in infancy; diffuseness of selective attachments in pre-school years; indiscriminately friendly attention-seeking behaviour in middle childhood; and a difficulty in forming confiding peer relationships in childhood and adolescence. Both types of attachment disorder are associated with difficult temperament and both may be precursors of conduct disorder and later personality disorders (Zeanah, 1996; Zeanah et al., 2011).

Table 20.2 Diagnosis of reactive attachment disorder and related syndromes

DSM-5	*ICD-10*
Reactive attachment disorder	
A. A consistent pattern of inhibited, emotionally withdrawn behaviour toward adult caregivers, manifested by both of the following: 1. The child rarely or minimally seeks comfort when distressed. 2. The child rarely or	

minimally responds to comfort when distressed.

B. A persistent social and emotional disturbance characterized by at least two of the following:
   1. Minimal social and emotional responsiveness to others.
   2. Limited positive affect.
   3. Episodes of unexplained irritability, sadness, or fearfulness that are evident even during nonthreatening interactions with adult caregivers.

C. The child has experienced a pattern of extremes of insufficient care as evidenced by at least one of the following:
   1. Social neglect or deprivation in the form of persistent lack of having basic emotional needs for comfort, stimulation, and affection met by caregiving adults.
   2. Repeated changes of primary caregivers that limit opportunities to form stable attachments (e.g., frequent changes in foster care).
   3. Rearing in unusual settings that severely limit opportunities to form selective attachments (e.g., institutions with high child-to-caregiver ratios).

D. The care in Criterion C is presumed to be responsible

Reactive Attachment disorder of childhood

The key feature is an abnormal pattern of relationships with caregivers that developed before the age of 5 years, that involves maladaptive features not ordinarily seen in normal children, and that is persistent, yet reactive to sufficiently marked changes in patterns of rearing.

Young children with this syndrome show strongly contradictory or ambivalent social responses that may be most evident at time of partings or reunions. Thus infants may approach with averted look, gaze strongly away while being held, or respond to caregivers with a mixture of approach avoidance and resistance to comforting.

The emotional disturbance may be evident in apparent misery, a lack of emotional responsiveness, withdrawal reactions such as huddling on the floor, and/or aggressive responses to their own or other’s distress.

Fearfulness and hypervigilance (frozen watchfulness), that are unresponsive to comforting occur in some cases.

In most cases, children show interest in peer interactions but play is impeded by negative emotional responses.

The attachment disorder may be accompanied by a failure to thrive physically and by impaired physical growth.

Reactive attachment disorders nearly always arise in relation to grossly inadequate childcare. This may take the form of psychological abuse or neglect or of physical abuse or neglect.

for the disturbed behaviour in Criterion A (e.g., the disturbances in Criterion A began following the lack of adequate care in Criterion C).

E. The criteria are not met for autism spectrum disorder.
F. The disturbance is evident before age 5 years.
G. The child has a developmental age of at least 9 months.

Disinhibited social engagement disorder

A. A pattern of behaviour in which a child actively approaches and interacts with unfamiliar adults and exhibits at least two of the following:
  1. Reduced or absent reticence in approaching and interacting with unfamiliar adults.
  2. Overly familiar verbal or physical behavior (that is not consistent with culturally sanctioned and with age-appropriate social boundaries).
  3. Diminished or absent checking back with adult caregiver after venturing away, even in unfamiliar settings.
  4. Willingness to go off with an unfamiliar adult with minimal or no hesitation.

B. The behaviors in Criterion A are not limited to impulsivity (as in attention-deficit/hyperactivity

Disinhibited attachment disorder of childhood

Diagnosis should be based on evidence that the child disorder) but include socially disinhibited behaviour.

C. The child has experienced a pattern of extremes of insufficient care as evidenced by at least one of the following:
   1. Social neglect or deprivation in the form of persistent lack of having basic emotional needs for comfort, stimulation, and affection met by caregiving adults.
   2. Repeated changes of primary caregivers that limit opportunities to form stable attachments (e.g., frequent changes in foster care).
   3. Rearing in unusual settings that severely limit opportunities to form selective attachments (e.g., institutions with high child-to-caregiver ratios).

D. The care in Criterion C is presumed to be responsible for the disturbed behaviour in Criterion A (e.g., the disturbances in Criterion A began following the pathogenic care in Criterion C).

E. The child has a developmental age of at least 9 months.

(For specifiers, see DSM-5, p. 269.)

showed an unusual degree of diffuseness in selective attachments during the first 5 years and that this was associated with generally clinging behaviour in infancy and/or indiscriminately friendly, attention-seeking behaviour in early or middle childhood.

Usually there is difficulty forming close confiding relationships with peers.

There may or may not be associated emotional or behavioural disturbance.

In most cases there will be a clear history of rearing in the first years that involved marked discontinuities in caregivers or multiple changes in family placements (as with multiple foster family placements).

Note: DSM-5 diagnostic criteria are reprinted with permission from the *Diagnostic and Statistical Manual of Mental*

Disorders, Fifth Edition (APA, 2013). Copyright © 2013 American Psychiatric Association. The material in the column headed ICD-10 is a summary of the clinical description and diagnostic guidelines for reactive attachment disorder and disinhibited attachment disorder of childhood. For the full official WHO clinical descriptions and diagnostic guidelines for these disorders see WHO, 1992, pp. 279–282.

Attachment disorders may be distinguished from pervasive developmental disorders. Children with attachment disorders have a normal capacity for social reciprocity whereas those with pervasive developmental disorders do not. Children with reactive attachment disorder gradually develop more normal patterns of social interaction when placed in a social context where their physical and psychological needs are met. In the case of pervasive developmental disorders, abnormal social behaviour persists despite environmental changes. Impaired intellectual and language development may characterize children with both disorders. However, those with pervasive developmental disorders show certain linguistic peculiarities such as echolalia and their intellectual deficits do not ameliorate markedly in response to environmental enrichment. Finally, stereotyped and ritualistic behaviour patterns characterize children with pervasive developmental disorders but not those with reactive attachment disorders.

Children do not need to be cared for by a single adult. However, multiple changing caregivers cannot meet a child's needs for secure attachment. They need a small group of adults who provide consistent care over an extended period with whom to form a hierarchy of selective attachments. These adults should be responsive to their cues and available at times of tiredness, distress, or in stressful, challenging circumstances. These principles should form the basis for both day-care services and residential childcare services (O'Connor et al., 2012; Zeanah et al., 2011).

Non-organic failure to thrive

While neglect and emotional or psychological abuse define parenting or caregiving problems, non-organic failure to thrive is a common outcome for the child who has received neglectful or emotionally abusive parenting. The clinical features of this condition are set out in Table 20.3 (Batchelor, 2008; Iwaniec, 1995, 2004; Smith & Fong, 2004; Stephens et al., 2008). The syndrome was first identified by Spitz (1945) in a study of institutionalized infants who failed to grow despite adequate calorific intake. He attributed the condition to the fact that they received little stimulation and had multiple caretakers. Spitz coined the terms *hospitalism* and *anaclitic depression* to describe the clinical presentations of institutionalized children.

Studies of non-organic failure to thrive have pinpointed the centrality of dysfunctional mother–child interaction patterns during feeding as the main maintaining factor in non-organic failure to thrive. Four common patterns identified by Iwaniec et al. (1985; Iwaniec, 2004) are set out in Figure 20.1. With the neglectful pattern, the mother fails to recognize the child's need for food and the child becomes passive and withdrawn. With the aggressive feeding pattern, the mother and child become embroiled in an aggressive feeding battle in which the mother attempts to force-feed the child and the child refuses food or vomits. In the non-persistent pattern, the mother becomes depressed and filled with a sense of helplessness as she repeatedly fails to help her child to feed. The final pattern involves the mother taking a flexible and tolerant approach to coaxing her child to take food and to some degree this adaptation is successful although faddiness, spitting and retaining food in the mouth continue to occur.

For mothers to persist in the determined feeding pattern, they require low stress, high support, strong personal resources and the absence of problems such as depression. It is also important to acknowledge the role of children's temperament in initiating and maintaining these feeding patterns. Children's refusal to be fed by their mothers strikes at the heart of many mothers' identities. It may lead to definitions of the self as a failure and subsequent guilt and depression, or anger at the child and a wish to blame the child for bringing forth this view of the self as a failure. Non-organic failure to thrive, if treated in the first year, may have a good prognosis. Children who are not identified until they are 2 years or older continue to have long-term problems.

Table 20.3 Main features of non-organic failure to thrive and psychosocial dwarfism

Non-organic failure to thrive	*Psychosocial dwarfism*
Growth retardation • Child falls below the third centile in weight and often in height	**Growth retardation** • Child's weight, height and head circumference fall below expected norms
Eating pattern • Refusal to take feeds • Vomiting • Diarrhoea	**Eating pattern** • Excessive eating • Gorging and vomiting • Scavenging food from waste-bins and begging food from strangers • Hoarding food and secretly searching for it at night • Eating non-food items
Developmental delay • Failure to achieve motor development milestones • Failure to reach language and intellectual milestones • Social and emotional immaturity	**Developmental delay** • Failure to achieve motor development milestones • Failure to reach language and intellectual milestones • Social and emotional immaturity
Attachment problems • Insecure attachment	**Attachment problems** • Insecure attachment, rejects mother, shows
Physical features • Wasted body and thin arm and legs	

• Large stomach • Red, cold, wet hands and feet • Thin, wispy, dull, falling hair • Dark circles around eyes • Frequent colds and infections **Psychological features** • Lethargy and passivity • Little vocalization • Stares blankly and has a lack of exploratory behaviour • Sadness, tearfulness, frequent whining and little smiling • Withdrawal, detachment and lack of social responsivity or cuddliness	lack of stranger anxiety **Physical features** • Disproportionate body build with short legs and enlarged stomach • Small and thin • Reduced growth hormone levels **Psychological features** • Depressed mood • Social withdrawal, detachment and lack of social responsivity or cuddliness • Mutism • Soiling, wetting and smearing • Aggressiveness and defiance • Self-harming behaviour • Short attention span • Insomnia

Note: Adapted from Iwaniec (1995).

Infants and children with non-organic failure to thrive would meet the DSM-5 criteria for avoidant/restrictive food intake disorder. The criteria include significant weight loss, significant nutritional deficiency, dependence on enteral feeding or oral nutritional supplements, and marked interference in psychosocial functioning. In DSM-5 avoidant/restrictive food intake disorder is distinguished from two other childhood feeding disorders: pica (the eating of non-nutritive substances) and rumination disorder (the regurgitation of food). Infants and children with non-organic failure to thrive would meet the ICD-10 criteria for feeding disorder of infancy and childhood, which subsumes cases that meet DSM-5 criteria for both avoidant/restrictive food intake disorder and rumination disorder.

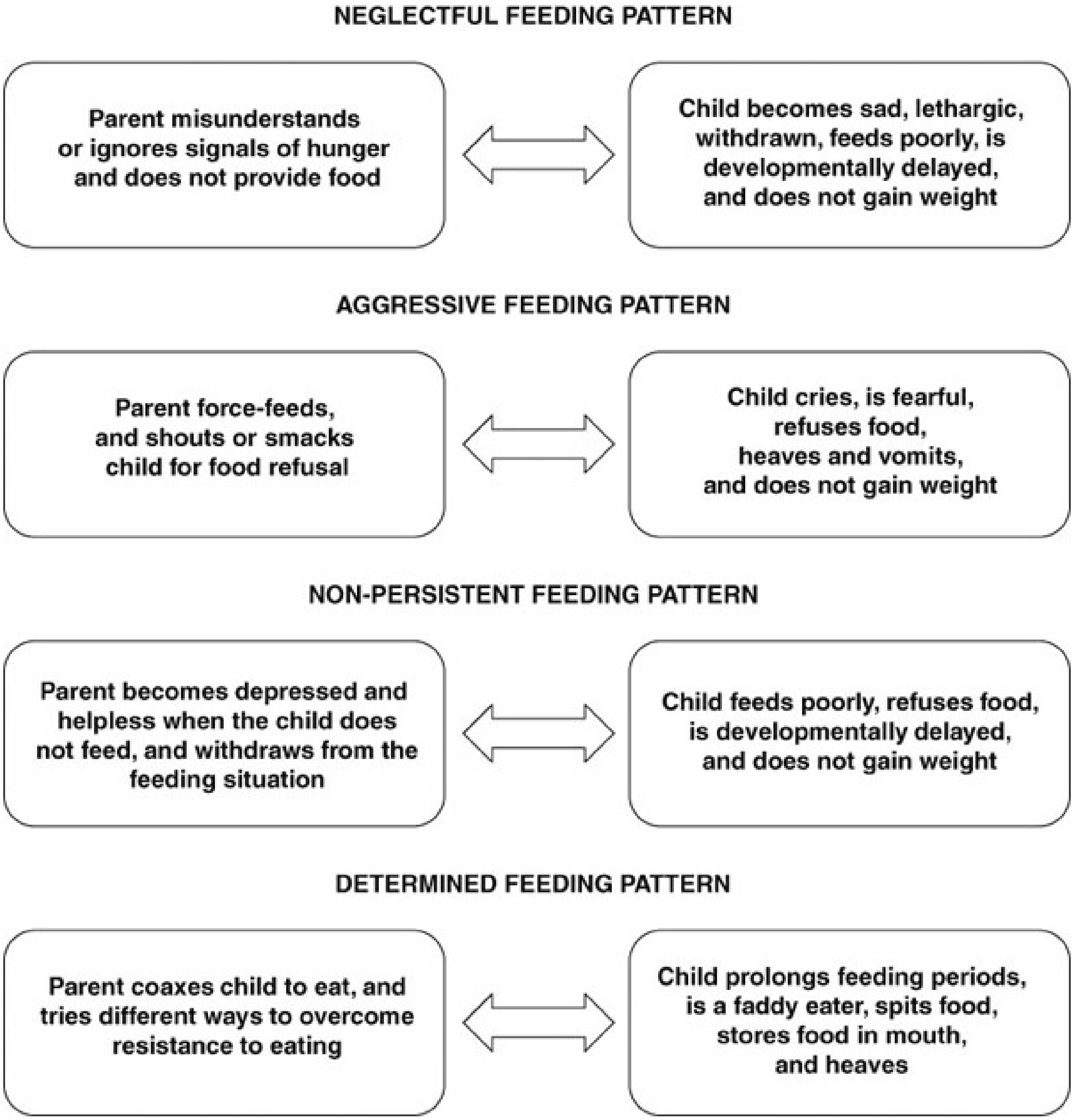


Figure 20.1 Four feeding patterns associated with non-organic failure to thrive

Note: Adapted from Iwaniec (1995).

Psychosocial dwarfism

Children suffering from psychosocial dwarfism are exceptionally short for their age; have reduced weight; have a small head circumference despite normal calorific intake; and have no obvious organic basis for their failure to grow (Iwaniec, 1995; Money, 1992; Muñoz-Hoyos et al., 2011). In addition to these growth problems, children with this condition show unusual patterns of eating behaviour including gorging, scavenging, secretly seeking food at night and hoarding it. They also display serious attachment problems refusing to speak to their mothers and referring to them as Miss or Mrs and show inappropriate attachments to strangers. At home they are aggressive and defiant to their parents. They engage in self-injurious behaviour such as head-banging or inflicting superficial wounds and scratches on themselves. They frequently wet and soil. They may also urinate intentionally on their own or other's possessions, hide their stools in unusual places or smear them on the walls. These children also show physical, cognitive and social developmental delays. The home environment is typically characterized by extreme emotional or psychological abuse. When removed from the home environment, these youngsters show accelerated growth which deteriorates when they are returned to their parents' care. It is not unusual for these youngsters to have difficult temperaments and to display problems of inattention and over-activity. A summary of these clinical features of psychosocial dwarfism is set out in Table 20.3.

Developmental delays and adjustment problems

Developmental delays and adjustment problems are common among emotionally abused and neglected children (Daniel et al., 2010, 2014; Farrell Erickson & Egeland, 2011; Glaser, 2011; Hart et al., 2011; Jones, 2008). In the short term, emotionally abused and neglected children show developmental delays in sensorimotor, cognitive and language development as indexed by poor performance on standardized tests and educational underachievement. They also present with internalizing and externalizing behaviour problems and difficulties making and maintaining peer relationships. At an intrapsychic level these children also typically have low self-esteem and emotion regulation deficits, so they find it difficult to control negative mood states, notably anger, anxiety and depression. The attachment and peer-relationship problems of emotionally abused and neglected children are often associated with victim–persecutor internal working models for relationships.

Long-term effects of neglect and emotional abuse

Emotionally abused and neglected children show more serious long-term adjustment problems than physically abused children (Daniel et al., 2010, 2014; Farrell Erickson & Egeland, 2011; Glaser, 2011; Hart et al., 2011; Jones, 2008; Smith & Fong, 2004; Widom & Nikulina, 2012). Internalizing behaviour problems include depression, anxiety, social isolation and withdrawal, self-harm, and suicide. Externalizing behaviour problems include impulsivity, aggression, domestic violence, child abuse and substance misuse. There are also very significant long-term difficulties making and maintaining intimate peer relationships and forming stable romantic attachments, and for those that form families there are significant difficulties maintaining stable and viable marital and parent–child relationships. The short-term cognitive and language delays and educational difficulties of neglected and emotionally abused children can lead to vocational problems in adult life. Poor long-term adjustment is associated with the severity and duration of the neglect or emotional abuse, the co-occurrence of physical or sexual abuse, and multi-placement experiences.

Assessment

Unifactorial theories and research programmes that focus exclusively on characteristics of the child, the caregiver or the social context as causes of neglect, emotional abuse, non-organic failure to thrive, psychosocial dwarfism and attachment problems have now largely been supplanted by complex multi-factorial frameworks. One such framework which draws on extensive literature reviews is presented in Figure 20.2 (Azar & Wolfe, 2006; Batchelor, 2008; Daniel et al., 2010, 2014; Dubowitz, 2011; Farrell Erickson & Egeland, 2011; Glaser, 2002, 2011; Hart et al., 2011; Hildyard & Wolfe, 2002; Horwath, 2007; Iwaniec, 1995, 2004; Jones, 2008; MacDonald, 2001; Money, 1992; Reder & Lucey, 1995; Smith & Fong, 2004; Stephens et al., 2008; Zeanah et al., 2011). There is obviously a considerable overlap between these risk factors and those outlined for physical child abuse considered in Chapter 19. To avoid repetition, details of the psychosocial processes that underpin marital discord and certain aspects of negative parent–child exchanges (e.g. misattribution) will not be reiterated here and the reader is referred to the appropriate sections of Chapter 19. The framework presented in Figure 20.2 offers an outline of some of the more important issues to be covered in a comprehensive assessment of a child and family that presents with neglect, emotional abuse, non-organic failure to thrive, psychosocial dwarfism or attachment problems. Some structured assessment instruments that may be a useful adjunct to clinical interviewing and observation are presented in Table 20.4.

Personal child factors

In assessing the presenting problem in these cases a multi-disciplinary approach is particularly important. A paediatric evaluation of the child should first be conducted to check the proximity of the child's weight and height to the third centile, which is one of the most important criteria for diagnosis of both psychosocial dwarfism and non-organic failure to thrive.

Any personal characteristics that make children difficult to care for puts them at risk for neglect and emotional abuse. Prematurity, low birth weight, multiple illnesses, young age, difficult temperament, or aggression are all potential risk factors for neglect, emotional abuse, non-organic failure to thrive, psychosocial dwarfism and attachment problems. Abused and neglected children typically show delays in sensorimotor, cognitive and language development. A thorough assessment of these functions should therefore routinely be conducted. Some psychometric tests for evaluating developmental status of pre-school children are described in Chapter 8.

Parental factors

Certain parental characteristic are particular risk factors in these cases and should be addressed during case evaluation. Of particular importance are poor parental early-attachment experiences (including a history of child abuse or domestic violence); parental mental health problems (such as borderline personality disorder, depression, and drug misuse); and psychological vulnerabilities (such as inaccurate expectations about child development, poor self-regulation skills, low self-esteem, external locus of control, low self-efficacy, a negative cognitive set, dysfunctional coping strategies and immature defences), all of which compromise parents' capacity to empathize with children. That is, they make it difficult for parents to be responsive to their children's needs. Of all of these parental characteristics, probably the sequelae of poor early-attachment experiences are the most important to consider in of cases of neglect or emotional abuse where children go on to develop attachment problems, and so this issue deserves detailed comment.

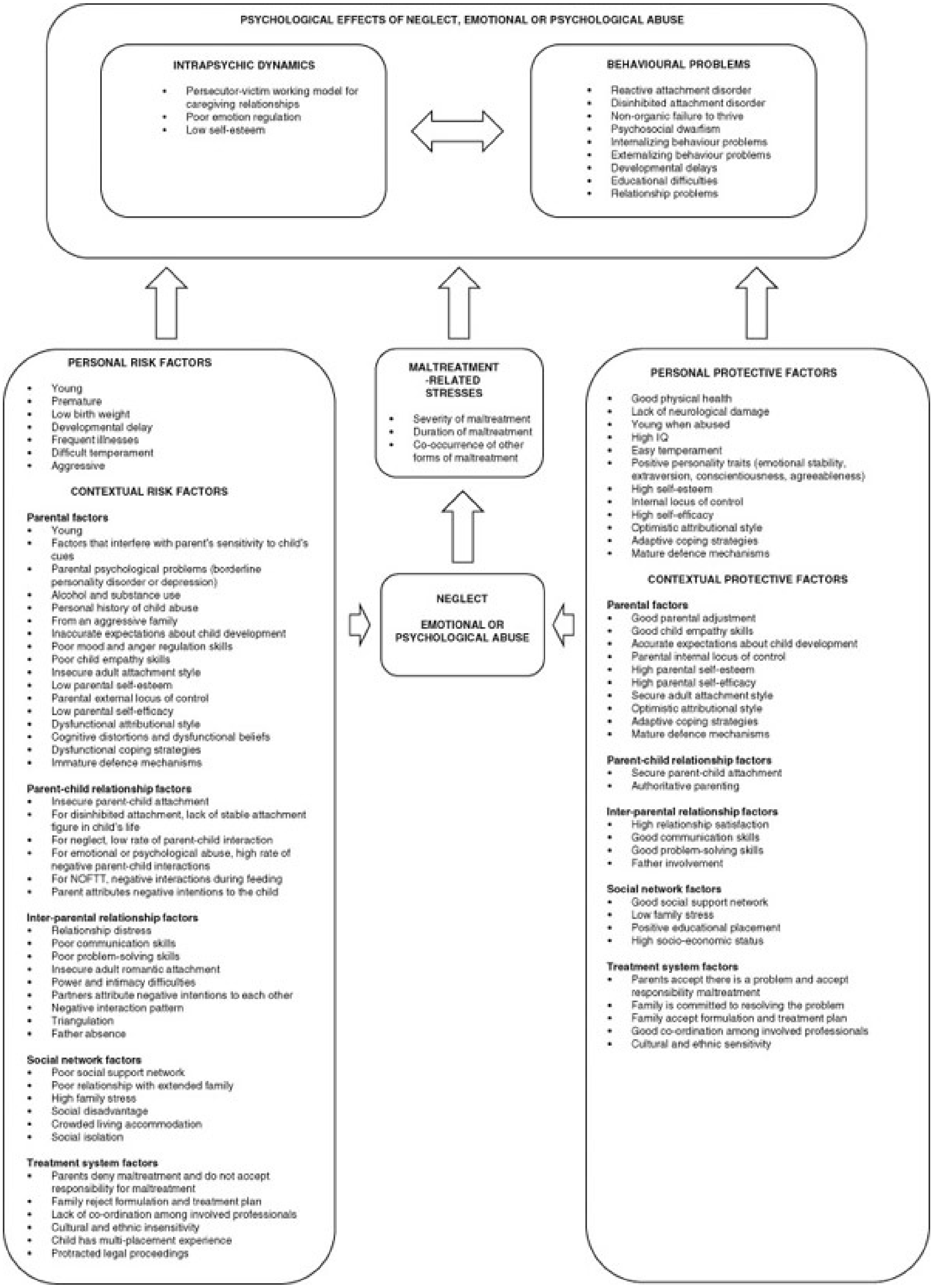


Figure 20.2 Risk and protective factors to consider in the assessment of neglect, emotional abuse and related problems

Table 20.4 Psychometric instruments that may be used as an adjunct to clinical interviews in the assessment of physical child abuse and neglect

Construct	*Instrument*	*Publication*	*Comments*
			This 264-item parent and child

Neglect and abuse	Checklist for Child Abuse	Petty, J. (1996). *Checklist for Child Abuse Evaluation.* Boston, MA: Hogrefe.	interview evaluates children's history of neglect, emotional abuse, sexual abuse, physical abuse and psychological status, as well as the credibility and competence of the child.
	Ontario Child Neglect Index (OCNI)	Trocmé, N. (1996). Development and preliminary evaluation of the Ontario Child Neglect Index. *Child Maltreatment, 1*, 145–155.	On the OCNI severity ratings are given on six neglect scales (supervision, nutrition, clothing and hygiene, physical health care, mental health care and development/educational care).
	Parent-Child Conflict Tactics Scales (CTC-PC)	Straus, M. A., Hamby, S. L., Finkelhor, D., Moore, D. W., & Runyan, D. (1998). Identification of child maltreatment with the Parent–Child Conflict Tactics Scales: Development and psychometric data for a national sample of American parents. *Child Abuse & Neglect, 22*, 249–279.	This 27-item interview assesses parents' self-reported neglect and abuse of children. Scales include neglect, physical assault, psychological aggression and non-violent discipline.
		Vervoort, E., De Schipper, J. C., Bosmans, G., &	

Reactive attachment disorder	Relationship Problems Questionnaire (RPQ)	Verschueren, K. (2013). Screening symptoms of reactive attachment disorder: Evidence for measurement invariance and convergent validity. *International Journal of Methods in Psychiatric Research, 22*(3), 256–265.	This 10-item multi-informant instruments screens for reactive attachment disorder in school-aged children.
Parents' potential for child abuse	Child Abuse Potential Inventory (CAPI)	Milner, J. (1986). *The Child Abuse Potential Inventory Manual – Revised.* Webster, NC: Psytec. Milner, J. S. (2006). *An interpretive manual for the Child Abuse Potential Inventory.* DeKalb, IL: Psytec.	This 160-item inventory assesses parents' overall potential for child abuse and gives subscale scores on the following factors: distress, rigidity, child with problems, problems with family and others, unhappiness, loneliness, negative concept of child and self. In addition the instrument contains a lie scale to assess the validity of responses. There are two response categories for all items and can be completed by parents with a reading age of 10 years.
Parents' history of child abuse	Childhood Trauma	Bernstein, D., & Fink, L. (1998). *Childhood Trauma Questionnaire: A retrospective*	This 28-item self-report scale assesses recollections of childhood maltreatment and will yield scores for physical abuse, sexual abuse, emotional abuse, physical neglect, emotional neglect

and neglect	Questionnaire (CTQ)	*self-report. Manual.* San Antonio, TX: Psychological Corporation.	and denial. Responses to items will be given on 5-point Likert scales. Cut-off scores and norms based on data from large samples will be used.
Intimate partner violence	Conflict Tactics Scale-2 (CTS-2)	Straus, M., Hamby, S., Boney-McCoy, S., & Sugarman, D. (1996). The revised Conflict Tactics Scales (CTS2): Development and preliminary psychometric data. *Journal of Family Issues, 17*, 283–316. Straus, M. A., & Douglas, E. M. (2004). A short form of the revised Conflict Tactics Scales, and typologies for severity and mutuality. *Violence and Victims, 19*, 507–520.	This 78-item structured interview requires respondents to indicate the frequency with which they used or were victims of various tactics for resolving intrafamilial conflicts. The tactics fall into the following categories: physical assault, psychological aggression, negotiation, injury and sexual coercion. Eight-point rating scales are provided for each item. There is also a 20-item short form of the CTS-2.
Degree of neglect and extent to which child's needs are	Home Observation for Measurement of	Bradley, R. & Caldwell, B. (1979). Home Observation for Measurement of the Environment: A revision of the preschool scale.	This 45-item rating scale is completed on the basis of observations made during home visits and parental report. It gives scores on six subscales: emotional and verbal responsivity of the mother; avoidance of restriction and punishment; organization of the physical

met by parents	Environment (HOME)	*American Journal of Mental Deficiency, 84*, 235–244.	and temporal environment; provision of appropriate play materials; maternal involvement with the child; and opportunities for variety in daily stimulation.

Fonagy et al. (1994) explain disorders of attachment from a psychoanalytic perspective. They distinguish between the development of the physical (pre-reflective) self and the psychological (reflective self). Both aspects of self contain internal working models of relationships between self and others. The internal working models of relationships contained in the physical self are premised on physical attributes and concrete interpretations of actions. These models contain many inaccuracies since they fail to take account of the subjective states of others. By contrast, the internal working models of relationships contained in the psychological self incorporate an awareness of others' mental states. That is, they take account of feelings, perceptions, beliefs and intentions that others may hold. Internal working models of relationships contained in the psychological self are far more accurate than those of the physical self and so facilitate social adaptation.

The physical self evolves over the first 6 months of life and its development is facilitated through physical interaction. The psychological self, on the other hand, evolves more slowly and is probably not fully developed until adolescence. The child's primary caregiver has a critical role in the evolution of the psychological self. The responsive caregiver who maximally facilitates the evolution of the psychological self observes the child's actions and the context within which they occur; infers what the child feels or needs and responds to these inferred psychological states so as to meet the needs they entail. Through this process of inferring the child's mental state and responding to this as accurately as possible, the child develops the psychological self which incorporates internal working models of relationships premised on a sensitivity to the mental states of others.

According to Fonagy's theory, responsive parenting is characterized primarily by the capacity of the parent to infer the mental state of the child and then to communicate with the child and meet the child's needs in the light of the inferred mental state. The coherence of the child's psychological self depends on the accuracy with which the caregiver infers the child's mental states.

If the caregiver has difficulty with inferring the child's psychological state, then the child is likely to adopt primitive defences including avoidance or resistance and in extreme cases disorganization. The behavioural manifestations of these are typically seen in Ainsworth et al.'s (1978) strange situation where infants have anxious-avoidant or anxious attachments. These defences protect the child's fragile psychological self. In more extreme situations where children are neglected, where the mother is chronically depressed or where the child is emotionally or physically abused, a variety of more extreme strategies may be adopted to preserve the psychological self. In some situations, a false self may develop, dedicated to pleasing the caregiver regardless of the personal costs (Winnicott, 1965). In others massive inhibition of the expression of emotions including aggression may occur. A third alternative is the continual expression of aggression.

Parents who have a poorly developed psychological self or reflective self are at risk of transmitting this to their own children by inaccurately inferring their own children's mental states. For example, by attributing negative intentions to the child's crying ('You're being a bad baby, trying to keep mummy awake' rather than 'good baby, telling mummy you have a wet nappy. We don't want to get nappy rash now do we?'). In Fonagy et al.'s (1994) series of studies, self-reflection was the single best predictor of secure attachment between mothers and infants. The capacity to accurately infer the psychological states of others and develop relationships within which this ability is used is an important protective factor, since it permits the development of socially supportive relationships.

Parent–child interaction

Specific patterns of parent–child interaction are associated with neglect, emotional abuse, psychosocial dwarfism, non-organic failure to thrive and attachment problems. With neglect, a low rate of any exchanges, either positive or negative, is a central concern. With emotional abuse there is a high rate of negative exchanges compared to positive exchanges. In non-organic failure to thrive the central interactional problem is with feeding routines. With attachment difficulties the high rate of negative exchanges and lack of prompt and appropriate responses to the child's cues are important features of the interactional problems in which the child and the primary caregiver are engaged.

Direct observation of parent–child interaction, ideally, in the home over a series of two or three 90-minute sessions, should be conducted. Parents should be invited to use some of the time to play with the child and some of the time to carry on doing household tasks and only interact with the child when they think it is necessary. It is a good idea to insist that the TV be turned off during these sessions. The observer should be as unobtrusive as possible. Patterns of positive interaction should be noted as should patterns of negative interaction. One crude index of the quality of the parent–child relation ship is the ratio of positive interactions (involving intellectual stimulation or positive emotion) to negative interactions (involving lack of contact or aversive contact) during a 1-hour period. In cases of neglect the absolute number of interactions is fairly low. In cases of emotional abuse a high ratio of negative to positive exchanges occurs. Where the central concern is non-organic failure to thrive it is important to observe a couple of episodes of feeding and to observe and describe the pattern of interaction between the parent and the child which underpins the lack of calorific intake. Four such patterns are described in Figure 20.1. Where the main concern is an attachment problem, the parent may be invited to leave the child in the room with the psychologist for a few minutes and then return and offer to comfort the child if he or she is distressed. The parent–child interaction may be observed and the degree to which the child's behaviour approximates the descriptions of inhibited and disinhibited reactive attachments disorders given earlier in this chapter may be determined.

Problematic parent–child interaction patterns may be underpinned by negative cognitive sets and belief systems and inappropriate developmental expectations such as those described in Chapter 19 in the discussion of parent–child interaction patterns and physical child abuse. That is, parents may attribute negative intentions to the child and view the child as deserving neglect or emotional abuse. These attributions typically involve an inaccurate understanding of the capabilities of children during early developmental stages. For example, it would be developmentally inaccurate to say that a 4 month old child would refuse to eat or cry to punish a mother.

Inter-parental relationship factors

Couple relationship factors which increase the stress or reduce the support available to the child's primary caretaker (usually the mother) increase the risk of emotional abuse, neglect, attachment problems, non-organic failure to thrive and psychosocial dwarfism. Such factors, which should be assessed, include relationship distress or intimate partner violence. These may be underpinned by negative belief systems and relationship skills deficits such as those described in Chapter 19 in the discussion of marital factors and physical child abuse.

Social network factors

Aspects of the wider social context that add to the stresses on the child's primary caregiver or fail to contribute to the primary caregiver's level of social support are risk factors for neglect, emotional abuse and related difficulties. Stresses such as low socio-economic status, crowding and social isolation should be assessed along with levels of support available from family, friends, and health and social welfare agencies.

Treatment system factors

Features of the treatment system, which includes the family, the treatment team and involved professionals and agencies, may place the child at risk for either ongoing neglect or emotional abuse or poor response to treatment or abuse. Denial of the neglect or abuse; rejection of the treatment team's formulation; and refusal to co-operate with the treatment plan may all be viewed as risk factors. Where there is a lack of co-ordination among involved professionals or unresolved disagreements about whether the case warrants a diagnosis of emotional abuse or neglect, this increases the risk of further abuse. Treatment systems that are not sensitive to the family's cultural and ethnic beliefs and values may be considered a risk factor, because they may inhibit engagement or promote dropout from treatment and prevent the development of a good working alliance. As with all forms of abuse, multi-placement experiences and protracted legal proceedings have a negative impact on long-term adjustment. A detailed discussion of problems associated with multi-placement experiences is given in Chapter 22.

In contrast to these risk factors, certain features of the treatment system may be viewed as protective insofar as they reduce the risk of further abuse and enhance the possibility of positive changes within the child's psychosocial environment, which in turn reduces the risk of long-term adjustment problems. Within the treatment system, co-operative working relationships between the treatment team and the family and good co-ordination of multi-professional input are protective factors. Treatment systems that are sensitive to families' cultural and ethnic beliefs and values are more likely help families engage with and remain in treatment, and foster the development of a good working alliance. Families are more likely to benefit from treatment when all family members accept that there is a problem and the parents accept responsibility for the emotional abuse or neglect. Acceptance of the formulation of the problem given by the treatment team and a commitment to working with the team to resolve it are also protective factors.

Comprehensive assessment schedule

In cases of physical child abuse, typically comprehensive assessment and treatment occur within the context of a statutory framework, usually after a specific non-accidental injury has occurred. Often the child is in foster care, and the goal of assessment is to determine under what conditions it would be safe for the child to return home. With emotional or psychological abuse, neglect and the related problems of non-organic failure to thrive, psychosocial dwarfism, and reactive attachment problems, it is less often the case that the child has been placed in foster care under a statutory childcare order. So, comprehensive assessment and treatment is often carried out by psychologists at the request of social workers with a view to preventing statutory action from occurring. In my experience, often these families are ambivalent about treatment. It may, therefore, be useful to ask the referring social worker to attend the first session in which the assessment contract is set up. If the family fail to attend later sessions, the referring social worker should be re-contacted immediately and a further three-way meeting between the family, the psychologist and the referring agent should be conducted. A full account of these types of engagement and contracting difficulties is given in Chapter 4. When engaging these families in assessment and later in treatment, it is particularly important to have a clear contract with specific goals, a clear specification of the number of sessions, and the times and places at which these sessions will occur. Such contracts should be written and formally signed by the parents, the psychologist and the statutory social worker.

The aim of case management in cases of emotional abuse and neglect and related problems is to provide the child with a safe environment which fosters development and an opportunity to sustain relationships with both parents with a minimum of disruption and change in the child's environment, providing sustaining such a relationship with the parents does not place the child at risk for further episodes of neglect abuse. This aim takes account of the fact that most neglected and abused children continue to feel loyalty to their abusing parents and to feel loved by them (Herzberger et al., 1981).

A comprehensive assessment should cover all risk factors in the model set out in Figure 20.2 and ideally should be carried out by a team rather than a single professional over a series of interview and observation sessions. A comprehensive child protection assessment schedule of interviews and assessment procedures for use in cases of emotional abuse or neglect is presented in Table 20.5. This schedule is based on the same principles as those outlined for cases of physical child abuse. Standardized assessment instruments given in Table 20.4 may be incorporated into comprehensive assessment as required.

Table 20.5 Components of a comprehensive child protection assessment package for cases of neglect or emotional abuse

Evaluation target	*Evaluation method and areas*
Child	• Individual interview with child (if the child is old enough) to assess personal strengths and resources (including assertiveness) and his or her account of the emotional abuse or neglect; perception of all relevant risk factors; and wishes for the future • Assessment of weight and height compared to national norms for children of the same age • Psychometric assessment of the child's cognitive and language development (if appropriate) • Child behaviour checklist to assess behavioural difficulties
Parents	• Individual interviews with parents to assess acceptance or denial or responsibility for emotional abuse; wilful or unwitting nature of neglect; parenting skills and deficits, personal resources and problems; and perception of all relevant risk factors • Psychometric assessment of specific parental characteristics (if appropriate) such as intelligence and psychopathology
Parent–child interaction	• Parent–child interaction observation sessions to assess positive aspects of parenting; problems with feeding routines; problems with stimulating play sequences; and risk factors associated with parent–child interactions • A brief trial (two sessions) of parent–child therapy to assess their responsiveness to behavioural coaching to improve feeding routines; increase parents intellectual stimulation of the child; and increase the number of positive exchanges and decrease the number of negative exchanges between the parent and child

Marital couple	• Marital interview to assess marital risk factors, especially joint communication and problem-solving skills for dealing with childcare issues and conflict management • A brief trial (two sessions) of couples therapy to assess couples responsiveness to coaching in joint communication and problem-solving skills for managing childcare issues • Psychometric assessment of each spouse's perception of marital relationship (if appropriate)
Family accommodation	• Visit to family residence to assess crowding, hygiene, safety of the home for the child, and opportunities for age-appropriate cognitive stimulation and play
Role of extended family	• Individual interviews with other members of nuclear and extended family to assess their acceptance or denial of the emotional abuse or neglect, their perception of risk factors, and their childcare skills and deficits • Joint interviews with extended family and nuclear family to observe the quality of their relationship to the nuclear family and assess potential for support
Role of other involved professionals	• Individual interviews with other involved professionals from health, education, social services and justice to obtain their expert view of risks and resources within the family and their potential future involvement in supporting the family or providing services • Joint interviews with other community-based resource people such as the foster parents with whom the child is temporarily based, home-help, befriender, leader of mother and toddler group, director of nursery or day-care facility, etc. to observe relationship to parents and assess potential for supporting the family in future

The issue of treatability of cases deserves special attention because available evidence suggests that not all families in which neglect or emotional abuse has occurred can benefit from treatment. The checklist set out in Table 19.3 in Chapter 19 offers a framework for assessing a family's capacity to engage in treatment. At least three out of the following four conditions must be met for the family to be able to benefit from treatment:

- acceptance of responsibility for abuse
- commitment to meeting their child's needs
- commitment to improving their own psychological well-being
- ability to change.

Treatment

Where it is decided that a family could benefit from treatment, therapeutic plans must be clearly linked to achieving specific concrete goals identified in the assessment. Typical goals and related interventions for cases of physical and emotional abuse and neglect have are set out in Table 19.4 in Chapter 19.

As with case of physical abuse, treatment for families where emotional or psychological child abuse or neglect has occurred typically involves, in addition to having clearly defined goals, a multi-systemic intervention package including a number of the interventions listed in Table 19.4 (Allen & Kronenberg, 2014; Azar & Wolfe, 2006; Brunk et al., 1987; Damashek & Chaffin, 2012; Daniel et al., 2010, 2014; Donohue et al., 1998; Farrell Erickson & Egeland, 2011; Hart et al., 2011; Iwaniec, 1995, 2004; Jones, 2008; MacDonald, 2001; O'Connor et al., 2012; Smith & Fong, 2004; Timmer & Urquiza, 2014; Zeanah et al., 2011). However, it is important that these components be prioritized. Unless there is good reason to do otherwise, priority should always be given to intensive family intervention with the parents and the psychologically abused or neglected child. The central aim of preventing the occurrence of negative cycles of interaction and promoting positive exchanges between the parents and child. Ideally this should involve intensive contact of up to three sessions per week over an initial period of 6–12 weeks (e.g. Nicol et al., 1988). Interventions which target the parents, the individual child, the marriage and the wider community should be given lower priority.

Around a central core of intensive family intervention other components of the multi-systemic intervention package should be organized. The parents may work with a therapist or facilitator in an individual, couples or group format and the children may work with another professional such as a teacher, speech therapist or play therapist in individual or group-based programmes.

Guidelines for intensive family intervention; individual interventions for children and parents; interventions which focus on the couple; and interventions which target aspects of the wider social context have been described in Chapter 19. All of these interventions may be appropriate elements to include in multi-systemic treatment packages for cases of neglect and emotional abuse. However, a specific type of family intervention is required to effectively deal with families containing a child who has developed non-organic failure to thrive.

Family-based treatment targeting non-organic failure to thrive

Iwaniec et al. (1985) developed an approach to working with families containing a child diagnosed as suffering from non-organic failure to thrive; this approach was effective or moderately effective in over 80% of cases. This 10-month intensive family intervention programme was offered to 17 families within the context of a broader multi-systemic intervention package involving child and parent support services and placement of children on an a statutory at-risk register. A series of 12 intensive twice-weekly home-based intervention sessions was offered over a 6-week period followed by 12 fortnightly follow-up sessions spread over a 6–7 month period. The family sessions focused on the development of feeding routines and patterns of family functioning to support these as well as enhancing mother–child attachment.

To develop more functional feeding routines, common feeding patterns were mapped out in a manner similar to those patterns presented in Figure 20.1. Where mealtimes had been chaotic or non-persistent, routines were developed for mealtimes so they became more predictable for the child and the parents. Where mealtimes were rigid and aggressive, flexibility was introduced. The mothers were coached in how to relax before beginning a feeding session. Fathers were coached in how to support mothers before they engaged in feeding sessions. Food was decoratively arranged to look appetizing and preferred foods were used. Mothers were coached in how to use play and soothing speech to make feeding times relaxing and pleasant for their infants. In addition, routine information on nutrition was given to parents.

Concurrent with these feeding-focused interventions, there was also an attempt within the therapy sessions to improve mother–child attachment by coaching mothers and children in supportive play sequences using guidelines similar to those set out in in Table 4.4 in Chapter 4, and requiring mothers to schedule daily periods of special play time of 10 minutes increasing to 30 minutes over a 4-week period. Within these sessions mothers were prompted to initiate play and sustain it while keeping negative exchanges to a minimum. Mothers were prompted to be sensitive to their child's wishes and respond to these promptly within the play session. They were encouraged to give the child wholehearted attention with frequent eye contact and cuddles. The were encouraged to anticipate negative exchanges and try to avoid these. After a month of this scheduled daily play, which typically occurred after the mother's partner returned from work in the evening, an intensive 2-week period of sustained mother–child contact was scheduled with considerably discussion, forethought and preparation on the part of the therapist and the family. The mother was encouraged to take the child everywhere with her for the 2-week period and engage the child in frequent talk, to make a lot of eye contact, and to cuddle and hug the infant as much as possible.

After this intensive period, fortnightly contact with families over a 6-month period were used to support the families in continuing the feeding routines and enhanced mother–child attachment. Less intensive interventions than this programme have been shown to have positive effects. However, Iwaniec's programme, which in total require only 24 hours contact per case, is a practice model worth emulating.

Prevention

Prevention programmes for physical abuse described in Chapter 19 are, with minor modifications, appropriate for prevention of neglect and emotional abuse. A range of short-and long-term evidence-based family interventions, each supported by a series of controlled trials, has been developed to foster attachment security in families with varying degrees of vulnerability (Berlin et al., 2008. Zeanah et al., 2011). For high-risk families in which parents have histories of childhood adversity and whose current families are characterized by high levels of stress, low levels of support and domestic violence, longer-term intensive interventions have been shown to be effective in improving attachment security. These involve weekly clinical sessions or home visiting and span 1–2 years. For example, child-parent psychotherapy involves weekly dyadic sessions with mothers and children for about a year (Lieberman & Van Horn, 2005). Child–parent psychotherapy helps mothers resolve ambivalent feelings about their infants by linking these to their own adverse childhood experiences and current life stresses within the context of a supportive long-term therapeutic alliance. For less vulnerable families, briefer interventions involving a few carefully structured home-visiting sessions and video feedback on parent–child interaction have been shown to be effective in improving attachment security. For example, with Juffer et al.'s (2007) video feedback intervention to promote positive parenting, in four home visits parents are given feedback on videotapes of their interactions with their infants, written materials on attachment, and an opportunity to discuss the impact of their own family of origin experiences on the way they interact with their infants.

Summary

Intentional emotional or psychological abuse and inadvertent neglect have profound short- and long-term effects on children's physical, emotional, social and cognitive development. Particularly significant short-term effects include non-organic failure to thrive, psychosocial dwarfism, attachment disorders and developmental delays. Multi-disciplinary assessment is essential in these cases and should include evaluations of the child, parents, parent–child relationship, marital factors, and levels of stress and support in the wider social system. Where parents accept responsibility for the maltreatment, are committed to meeting their child's needs, are committed to improving their own psychological well-being, and have the ability to change, the prognosis is good. Where fewer than three of these conditions are met, it is unlikely that a positive treatment response will occur. Treatment should be based on clear contracts to meet specific targets and involve a central focus on improving parent–child interaction through direct work with parents and children together. This may be supplemented with individual work for parents focusing on parent-craft and the management of personal psychological difficulties, and children may receive input in therapeutic pre-school placements. Intervention may also focus on helping couples enhance their mutual supportiveness and the degree to which the extended family offer support.

Exercises

Helen and Mary are identical twins. They are referred to you for developmental assessment by a paediatrician in the district where you work. The paediatrician notes that over the past year they have both maintained heights and weights that place them just above the fourth percentile. Helen an Mary are now 3 years of age. They speak in short two- or three-word sentences and have very low activity levels. They sleep a lot during the day and wake at night regularly. Both were bottle-fed from the start and this was a big disappointment to Sarah, their mother. Sarah had no luck getting the twins to breastfeed. Brian, her husband, thinks she fusses too much about the twins. Brian was married before and has a child by that marriage who is grown up and gone to college. Brian is in his fifties and Sarah is 28 years old. The twins are her first children. Sarah gave up her job when she had the twins and finds now she misses work a lot. Brian is on a disability pension, having retired early from the police force with an injury. Their vibrant relationship has deteriorated a lot since the birth of the twins and they go through spells where they don't talk to each other for days on end. However, they eventually overcome this and get back to harmonious, if exhausting, lifestyle. The twins are due to start playschool soon.

Exercise 20.1

Offer a preliminary formulation of this case and an initial interview plan.
From the information given, do you judge this case to be potentially treatable?
What type of intervention package would you expect to consider in this case?

Exercise 20.2

Role-play a preliminary interview and reformulate the case on the basis of the information obtained.

Further reading

Allen, B., & Kronenberg, M. (2014). *Treating traumatized children. A casebook of evidence-based therapies*. New York: Guilford.

Department of Education. (2013). *Working together to safeguard children. A guide to inter-agency working to safeguard and promote the welfare of children*. London: HM Government.

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Timmer, S., & Urquiza, A. (2014). *Evidence-based approaches for the treatment of maltreated children. Considering core components and treatment effectiveness*. New York: Springer.

Websites

American Professional Society on the Abuse of Children (APSAC): http://www.apsac.org

International Society for the Prevention of Child Abuse and Neglect (ISPCAN): http://www.ispcan.org

Chapter 21

Sexual abuse

There is an international consensus that child sexual represents unacceptable childcare and a violation of a child's human rights as outlined in the United Nations Convention on the Rights of the Child (1992). Child sexual abuse (CSA) refers to the use of a child for sexual gratification (American Academy of Child and Adolescent Psychiatry, 1997b, 1999; Berliner, 2011; Crosson-Tower, 2015; Department of Education, 2013; Glaser, 2008; Goodyear-Brown, 2012; NICE, 2009). Sexual abuse actions may vary in intrusiveness (from non-contact viewing or exposure to contact ranging from touching to penetration) and frequency (from single episode to frequent and chronic abuse). A distinction is made between intrafamilial sexual abuse, the most common form of which is step-father or father–daughter incest, and extrafamilial sexual abuse where the abuser resides outside the family home. An example of a case of intrafamilial sexual abuse is presented in Box 21.1. A case of extrafamilial abuse is given in Box 21.2.

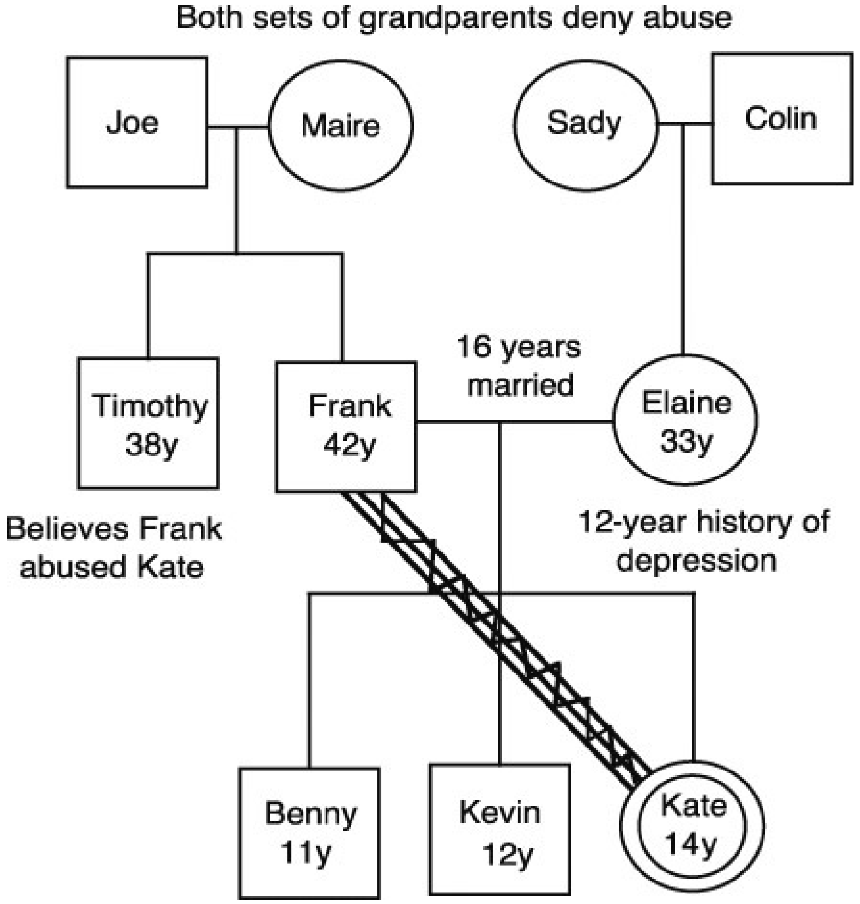
Box 21.1 A case of intrafamilial sexual abuse

Referral. Kate Henderson, aged 14, had been attending a child and family clinic because she had adjustment problems at school. She was falling behind in her academic work and was at the centre of a number of incidents that had occurred in the school grounds where two boys were fighting about their exclusive right to be her boyfriend. During the assessment of Kate and her family which was conducted over a series of sessions, the school principal called the clinic one evening to say that Kate refused to go home because she was frightened of her father whom she claimed had been sexually abusing her for over a year.

Preliminary assessment of allegations of abuse. In a subsequent evaluation of these allegations by a team including a police woman and a statutory social worker, Kate confirmed that oral and vaginal sex had been occurring weekly for about 15 months. Kate's mother suffered from clinical depression and was being treated by the GP and a member of the psychology department for this. Her two younger brothers apparently had no problems and were unaware of the sexual abuse.

History of the presenting problem from Kate's viewpoint. The abusive incidents had begun when Kate's mother, Elaine, had been hospitalized briefly following a car accident. The father, Frank, had crept into Kate's room on the second night after coming back from visiting Elaine in hospital. He did not usually drink, but had drunk some wine that evening to deal with his sadness concerning Elaine's condition. Both of Elaine's legs had been broken in the accident and this had occurred during a particularly debilitating episode of depression. Frank usually tucked Kate in and often stroked her hair to help her sleep. However, this night, which was warm, he extended the stroking to her buttocks and breasts. When she protested, he accused her of being ungrateful and said that it was soothing for him at this difficult time. He then began to masturbate and involved Kate in this. Over the subsequent months, these sessions recurred weekly progressing from manual masturbation to oral sex and vaginal intercourse. On some but not all occasions he drank alcohol. When Elaine returned home she slept downstairs, and Frank would initiate these episodes after he had said to Elaine that he was going upstairs to go to sleep. When Kate resisted, Frank said that if she told anyone about their secret, her mother would be unable to cope with the information and she would be guilty of preventing her mother's recovery. This would have a negative impact on the well-being of the boys and the whole family. Also, he pointed out that she enjoyed the secret sessions and had always liked physical contact with him since she was a little girl. He tried to convince her that this was just the natural outcome of such a special father–daughter relationship.

Kate's account of the effects of sexual abuse. Kate felt that there was little she could do because she had, in her view, actively participated in the sexual episodes and so believed herself to be guilty. She also did not want to upset her mother or brothers. And despite her anger at her father, she did not want him to leave the house, since the family could not cope without him. She was angry because she felt there was no way out and also because she felt like she was dirty. She also was angry because she felt like her father, whom she had idolized, had let her down badly. These mixed feelings and worries about how to make things right again made concentration at school difficult. She also always been a good student but her work had slowly begun to deteriorate. She had been popular in school, but now found that she fought with her girlfriends more and had fallen out with her best friend. She also found that the attention she got from two older boys in the grade above her flattering. With each of them she had, without forethought or planning, found herself in situations coming home from school through the park where they had caressed and fondled her in a way that she felt was out of character for herself. She had laughed these incidents off and tried to avoid getting into similar situations again. However, these incidents appear to have led each of the boys to believe that they were Kate's exclusive boyfriend. It was this situation that led to the fight mentioned in the referral letter.



Kate said that a television programme about sexual abuse, along with the growing tension she experienced, led her to make the allegations at the time when she did.

Family assessment. The family evaluation showed that there was a partner-like relationship between Frank and Kate. Elaine, particularly when she was depressed, tended to fall into a daughter-like role. Both parents denied the occurrence of abuse. The maternal and paternal grandparents also refused to accept Kate's allegations. Only Frank's brother, Timothy, believed Kate's story.

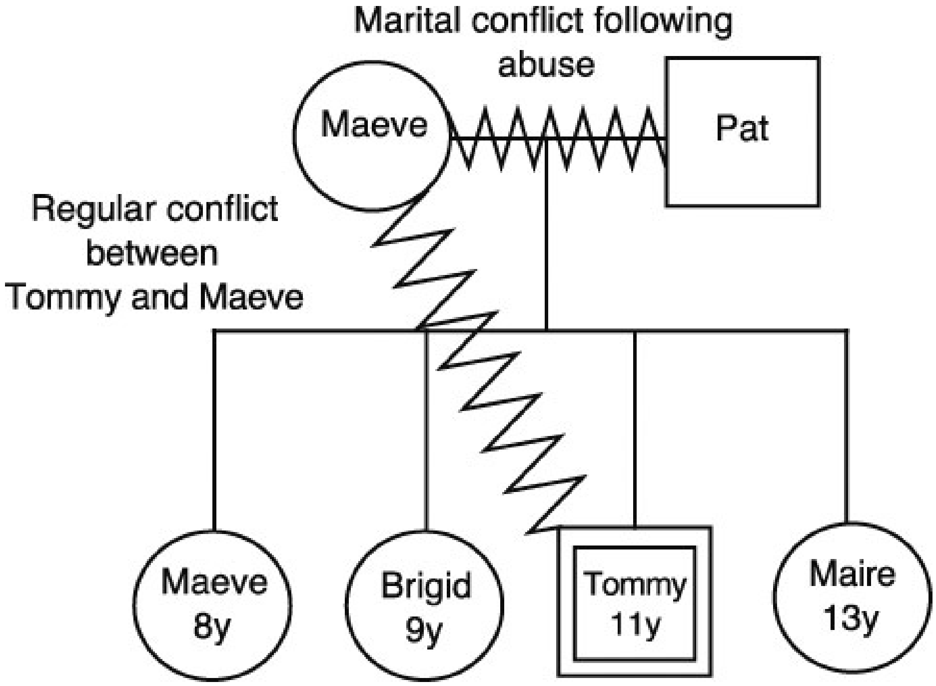
Formulation. Kate was a 14 year old girl who had been sexually abused over a period of 15 months by her father. The onset of the abuse had coincided with the mother's hospitalization. Thus she was not available to inhibit the father's abuse by protecting Kate. The father was probably motivated to abuse Kate because of limited sexual outlets. It is probable that his relationship with his wife Elaine was sexually unsatisfying because she had been episodically depressed over a number of years. The sexual abuse had led to Kate experiencing considerable emotional distress (including powerlessness, betrayal and stigmatization), over-sexualized behaviour and academic problems. Frank's coercive threats about the negative impact of disclosure on the integrity of the family had prevented her from disclosing the abuse, but the TV programme on abuse, along with her growing distress and her trust in her teacher, precipitated the disclosure. The mother's depression and sense of helplessness probably prevented her from supporting her daughter.

Management. An application was made for a care order for the three children and arrangements were made for Kate to receive continued supportive counselling.

Box 21.2 A case of extrafamilial sexual abuse

Referral. Tommy Muldoon, aged 11, was referred for treatment at a child and family centre following an allegation that he had been sexually abused by Rudy, a 19 year old babysitter over a period of 18 months. During the 6 months preceding the allegations he had become involved in regular escalating battles with his parents, particularly his mother. These fights and arguments often occurred on Saturdays or Sundays, and it was usually on Saturday night that the babysitting episodes occurred. He sometimes refused to go into his bedroom and had smeared faeces on the wall at the end of his bed, and it was this incident that led to the conversation in which he made the allegations.

Family history. Prior to these episodes Tommy and his three sisters were all well-adjusted children with normal developmental histories. The parents, Maeve and Pat, were apparently a well-adjusted couple. The Muldoons lived in a council house and the children attended the local primary school.



Impact of the abuse on the family. Following the allegations, Tommy was interviewed by the police and charges were brought against Rudy, who pleaded guilty to a number of sexual assault charges but received suspended sentences and probation. This led to a situation where Tommy and his family regularly saw Rudy in the streets of the council housing estate every week. Tommy and his family found this very stressful. Tommy was frightened that the assaults would recur. He also felt dirty and guilty. He began to have nightmares and fantasized that he would be attacked by Rudy. Maeve and Pat wished to take revenge but knew that this could lead to them being charged with assault also. Maeve became clinically depressed and Pat distanced himself from family life. The marriage became far less satisfactory from both parents' viewpoints. After a number of weeks Tommy refused to go into his room to sleep and spent many nights sleeping in his parents' bed which compounded the marital difficulties. Pat objected to this behaviour but Maeve went along with it.

Formulation. The abuse of Tommy by Rudy, and Rudy's subsequent release on probation following Tommy's testimony, led Tommy to experience both internalizing and externalizing behaviour problems and a sense of powerlessness, betrayal and stigmatization. Concurrently his parents experienced a sense of powerlessness which led to the mother's depression and the father's withdrawal from family life. The parents' difficulties in coping with the situation exacerbated Tommy's difficulties.

Treatment. The treatment plan in this case involved family work which focused on helping the parents support Tommy and individual work in which Tommy was helped to process the intense emotions concerning the abuse.

Outcome. Over a period of months, the capacity of the parents to support each other and Tommy diminished. The family were also ostracized by some of their neighbours. They moved to another council estate. For a brief period Tommy's behaviour improved. He began to sleep alone and his aggression reduced considerably. There was a brief improvement in the quality of the marriage. However, eventually the couple separated, with Maeve retaining custody of the children and Pat seeing them on weekends.

In this chapter, after considering the epidemiology of child sexual abuse, the cycle of sexual abuse and its effects will be described. Factors affecting adjustment to abuse will then be discussed. The management of cases in which child abuse is suspected will be described, with a detailed account being given of assessment of the validity of allegations of sexual abuse and also of more general assessment procedures. Approaches to the treatment of both victims and offenders will be addressed. A discussion of issues to consider in legal proceedings in cases of child sexual abuse will follow. The chapter will close with some comments on prevention.

Epidemiology

In a series of meta-analyses of international studies Stoltenborgh et al. (2011, 2012, 2013a, 2013b) found prevalence rates based on self-report of 12.7% for contact sexual abuse, 22.6% for physical abuse, 36.3% for emotional abuse, 18.4% for emotional neglect, and 16.3% for physical neglect. In an international meta-analysis of sexual abuse prior to 18 years, covering the period 2000–2009, Barth et al. (2013) found that 9% of women and 3% of men had suffered forced vaginal, oral or anal intercourse; 13% of females and 6% of males had experienced contact sexual abuse involving touching without penetration; and 31% of females and 17% of males has suffered non-contact sexual abuse (for example, indecent exposure). These findings indicate that sexual abuse is very prevalent; that more severe forms of sexual abuse are less prevalent; and that more girls than boys are sexually abused. Other epidemiological trends based on extensive reviews deserve mention (Berliner, 2011; Crosson-Tower, 2015; Glaser, 2008; Goodyear-Brown, 2012; Jones, 2009; Murphy, 2007; Putnam, 2003). Most abusers are male. Less than a fifth of abusers are women. CSA occurs with children of all ages but there is a peak for girls both at 6–7 years and at the onset of adolescence. Multiple episodes of sexual abuse occur in about half of all cases, and three-quarters of cases in clinical samples. Compared with the normal population, rates of abuse are two to three times higher among children with physical and intellectual disabilities. Children in residential care are at higher risk of abuse. Intrafamilial abuse by fathers or step-fathers occurs in just under a fifth of cases. Intrafamilial abuse by any relative occurs in about a third of cases. Most sexual abuse is perpetrated by acquaintances of the child and family. Girls are more commonly abused intrafamilially and boys are more commonly abused extrafamilially. Intrafamilial sexual abuse is most commonly perpetrated by fathers, step-fathers and siblings. Extrafamilial sexual abuse is most commonly perpetrated by people whom the family trust such as babysitters, club-leaders, teachers, residential care staff, neighbours and friends. Most sexual offenders are male and up to 40% of these are teenagers. While CSA usually entails threats of violence, co-morbidity with physical child abuse is only about 20%. Some sexual abuse occurs in isolation, but in a significant number of cases abuse is organized and may involve recruitment of children for paedophile rings, pornography, prostitution, and sadistic or satanic practices.

The cycle of sexual abuse

CSA cases referred for psychological consultation have typically involved repeated abuse. A simplified model of the cycle of repeated abuse is presented in Figure 21.1. The model attempts to integrate conclusions drawn from reviews of empirical work on broad risk factors for CSA, findings on cycles of offending behaviour among sexual offenders, and models of sexual offending (O'Reilly et al., 2014; Ward et al., 2005). The cycle starts with the abuser reflecting on the possibility of sexually abusing a child. The abuser may engage in such reflection both because of the specific trigger situation in which he finds himself and because of a general predisposition to be motivated to abuse children such as that described by

Finklehor (1984). Typically this motivation involves experiencing CSA as emotionally congruent, being aroused by children, and having access to adult partners blocked. The perpetrator then creates a situation in which external factors that may prevent abuse are removed or minimized. This is facilitated if the child has little parental supervision or support from a non-abusing parent and if the perpetrator and child are in a socially isolated situation. Once in a situation where there are few external inhibitors for CSA, the perpetrator overcomes personal inhibitions. He may minimize the impact of internal inhibitors such as guilt or fear of being caught through engaging in an internal dialogue in which the abuse in justified, its negative impact on the child is denied, and the possibility of being detected is denied. Alcohol or drugs may also be used to reduce the inhibitory power of fear and guilt. The perpetrator may then coerce the child into sexual abuse by promising rewards for compliance and threatening punishment for non-compliance with the sexually abusive acts. This abuser may engage in this coercive behaviour because he has an internal working model for relationships with children that entails the abuse of power. Such internal working models may be based on early attachments that involved abuse. In response to the perpetrator's coercion, the child's resistance is overcome. The child may have difficulty resisting because of lack of strength, assertiveness skills, or fears about the consequences of not engaging in abuse. Following the abusive acts, children's resistance to further abuse may be weakened because they believe they were partly responsible for the abuse and because they fear the consequences of disclosure. The cycle may repeat the next time the perpetrator finds himself in a trigger situation.

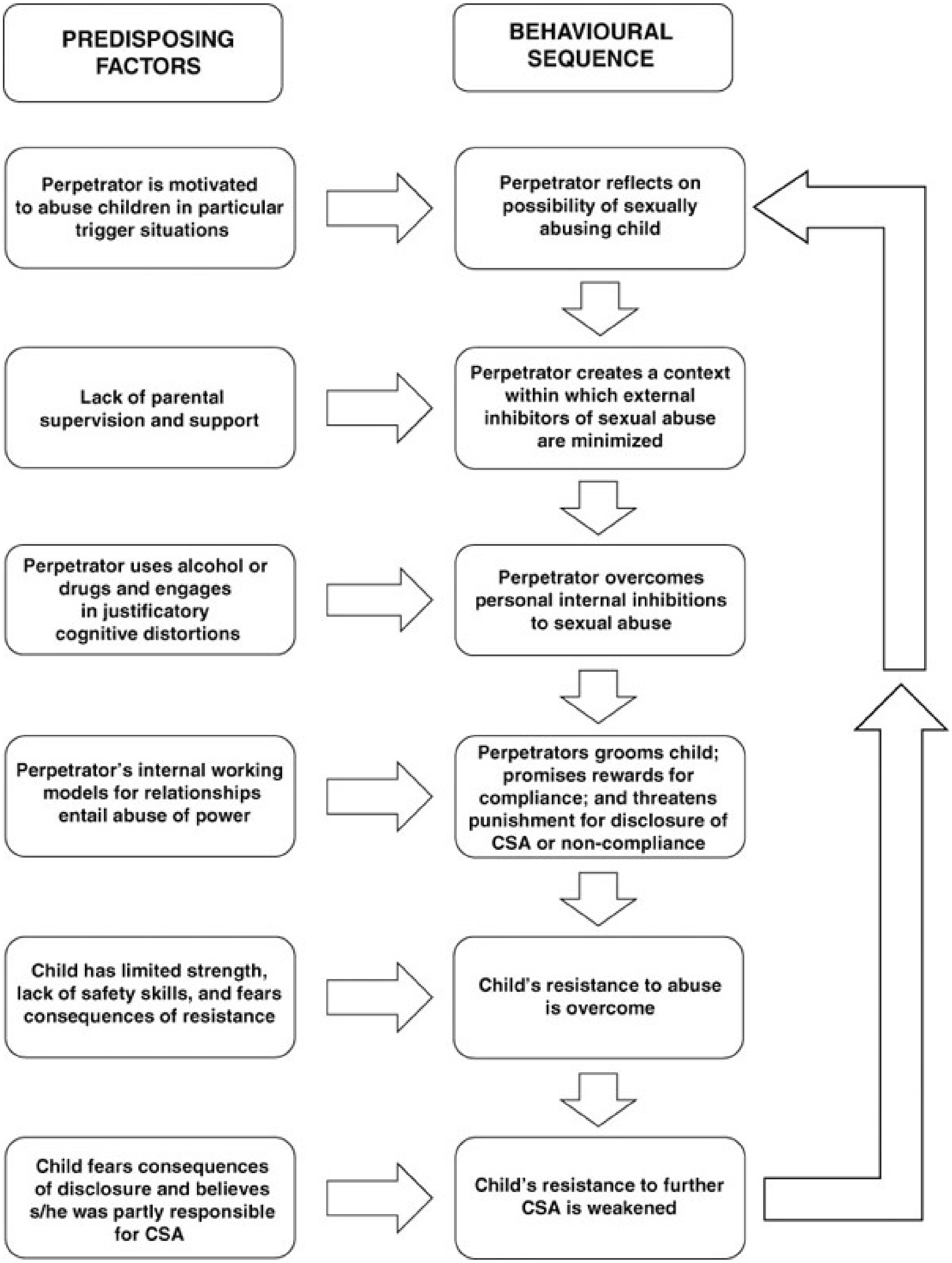


Figure 21.1 Model of pattern of interaction in which repeated sexual abuse may be embedded

Effects of sexual abuse

CSA has profound short- and long-term effects on psychological functioning and physical health (Berliner, 2011; Browne & Finklehor, 1986; Glaser, 2008; Goodyear-Brown, 2012;

Hillberg et al., 2011; Irish et al., 2010; Jespersen et al., 2009; Jones, 2009; Kendall-Tackett et al., 1993; Nelson et al., 2012; Paolucci et al., 2001; Paras et al., 2009; Putnam, 2003; Sequeira & Hollis, 2003; Wegman & Steltler, 2009). About two-thirds of sexually abused children develop psychological symptoms. Behavioural difficulties shown by children who have experienced CSA typically include sexualized behaviour, excessive internalizing or externalizing behaviour problems, school-based attainment problems, and relationship difficulties with parents, teachers, peers and romantic partners. However, a specific syndrome with a clearly defined cluster of behavioural difficulties unique to those who have experienced CSA has not been identified. Also, no single diagnostic category, such as post-traumatic stress disorder (PTSD), is present in all cases. In a meta-analysis of 37 studies, Paolucci et al. (2001) found unweighted effect sizes of .5 for PTSD, .6 for depression and suicide, .5 for sexual promiscuity, .4 for victim–perpetrator cycle, and .2 for deterioration in academic performance. Behaviour problems abate in the 18-month period following the cessation of abuse in about two-thirds of cases. Up to a quarter of cases develop more severe problems, and these may include those cases that were initially asymptomatic. About a fifth of cases show clinically significant long-term problems which persist into adulthood. Adults sexually abused as children have higher rates of physical and mental health problems than the normal population.

One of the most useful models for conceptualizing the intrapsychic processes that underpin the behaviour problems or symptoms that arise from sexual abuse is Browne and Finklehor's (1986) traumagenic dynamics formulation. Within this formulation, traumatic sexualization, stigmatization, betrayal and powerlessness are identified as four distinct yet related dynamics that account for the wide variety of symptoms shown by children who have been sexually abused.

With traumatic sexualization, the perpetrator transmits misconceptions about normal sexual behaviour and morality to the child. The child is rewarded for sexual behaviour inappropriate to his or her developmental level and so sexual arousal becomes associated with rewards and the idea of receiving care, love and attention. In other instances sexual activity becomes associated with negative emotions and memories. These experiences increase the salience of sexual issues for the child and lead to confusion about the relationship between sex and caregiving. Confusion may also arise over sexual norms and sexual identity. These confused beliefs about sexual issues may lead to either over-sexualized behaviour or to avoidance of sex and difficulties in becoming sexually aroused.

With stigmatization, the perpetrator blames and denigrates the child and coerces the child into maintaining secrecy. Following disclosure, other members of the family or the network may blame the child for participating in the abuse. The child develops negative beliefs about the self including the ideas of self-blame and self-denigration (the damaged-goods belief). These beliefs lead to self-destructive behaviours such as avoidance of relationships, drug abuse, self-harm and suicide. The child may also internalize the abuser's demand for secrecy and dissociate whole areas of experience from consciousness. These may occasionally intrude into consciousness as flashbacks.

The dynamics of betrayal begin when the trust the child has in the perpetrator is violated and the expectation that other adults will be protective is not met. These violations of trust and expectations of protection lead the child to believe that others are not trustworthy. This loss of a sense of trust in others may give rise to a variety of relationship problems, delinquency and intense feelings of sadness and anger.

The dynamics of powerlessness have their roots in the child's experience of being unable to prevent the abuse because of the perpetrator's use of physical force and psychological coercion. This may be compounded by the refusal of other members of the network to believe the child or take effective professional action. The child, as a result of this experience of being powerless, may develop beliefs about generalized personal ineffectiveness and develop an image of the self as a victim. These beliefs may lead to depression, anxiety and a variety of somatic presentations. The experience of powerlessness may also lead to the internalization of a victim–persecutor internal working model for relationships, which sows the seeds for the child later becoming a perpetrator when placed in a position where an opportunity to exert power over a vulnerable person arises.

Factors affecting adjustment to abuse

The degree to which children develop the four traumagenic dynamics and associated behaviour problems following sexual abuse is determined by a wide range of factors. These include stresses associated with the abuse itself and the balance of risk and protective factors present in the child and the social context within which the abuse occurs (Berliner, 2011; Crosson-Tower, 2015; Furniss, 1991; Glaser, 2008; Goodyear-Brown, 2012; Jaffee & Maikovich-Fong, 2013; Jones, 2009; Lyon & Ahern, 2011; Spaccarelli, 1994). Some of the more important factors deserving consideration as part of the assessment of cases of CSA are contained in Figure 21.2.

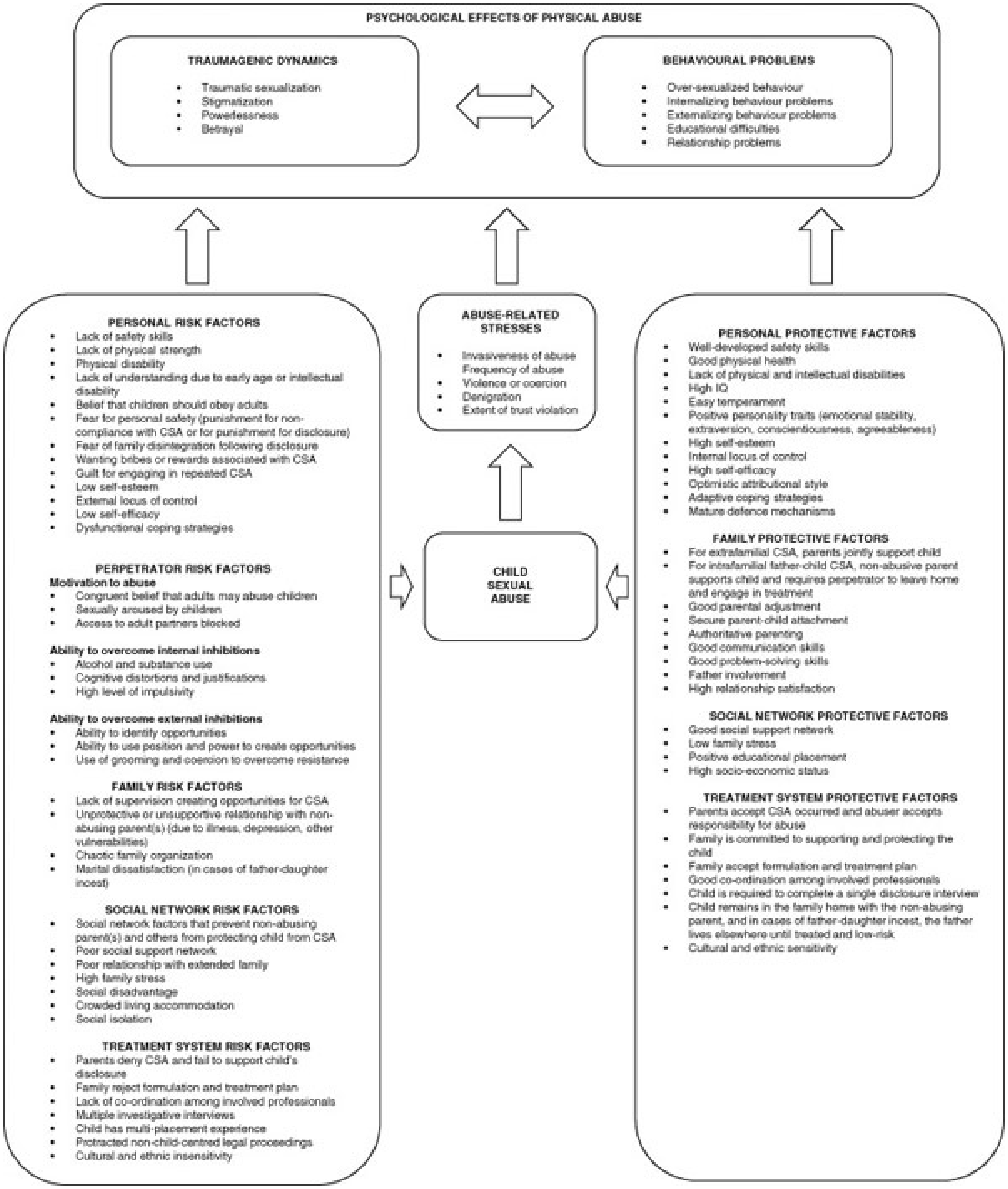


Figure 21.2 Factors to consider in the assessment of child sexual abuse

Abuse-related stresses

Aspects of the abuse such as the frequency, invasiveness, amount of physical violence, amount of denigration and degree to which the child's trust in an adult was violated all have an impact on the level of abuse-related stress experienced (Crosson-Tower, 2015; Goodyear-Brown, 2012; Spaccarelli, 1994). Whether the abuse was perpetrated by a family member or by someone outside the family is an important issue to consider when judging the degree to which trust was violated. In addition to features of the abuse, the child's personal attributes and the social context within which the sexual abuse occurred may effect the level of stress experienced by the child and the risk of re-abuse.

Risk and protective factors associated with the child

The risks of re-abuse or repeated abuse are enhanced by factors that prevent children resisting the abuser (Crosson-Tower, 2015; Goodyear-Brown, 2012; Spaccarelli, 1994). These include lack of safety skills, lack of physical strength, physical and intellectual disabilities, lack of understanding, and a strongly held belief that children should obey adults in all circumstances. Once a pattern of abuse becomes entrenched it may continue, because children fear that their own safety or the integrity of the family will be threatened if they disclose the abuse. Where children are relatively unsupported and have few positive relationships or resources, they may need the bribes or rewards they receive from the abuser. They may also fear reprisals from others and feel intense guilt associated with a belief that they were responsible for the abuse. Low self-esteem, low self-efficacy and an external locus of control all render children vulnerable to repeated abuse. The child may cope with abuse-related stress in a functional or a dysfunctional way. Dysfunctional coping strategies include accommodation to the abuser and the abuser’s wishes, denial of the abuse, recanting and attempts to avoid disclosure and its consequences. These negative coping strategies are usually associated with certain appraisals of the outcome of disclosure. For example, abused children may blame themselves for the abuse and fear that disclosure will threaten the integrity of the whole family.

Functional coping strategies include seeking social support and using socially supportive relationships as opportunities for catharsis and re-evaluating beliefs associated with traumagenic dynamics such as sexualization, stigmatization, powerlessness, and betrayal. Functional coping strategies may be viewed as protective factors. So too are other personal characteristics that allow the child to resist repeated abuse. Such factors include safety skills, physical strength, intelligence, positive personality traits (such as emotional stability, extraversion, conscientiousness and agreeableness), high self-esteem, high self-efficacy, an internal locus of control, an optimistic attributional style and mature defences.

Risk factors associated with the perpetrator

Finklehor (1984) has argued that four pre-conditions must be met for child sexual abuse to occur, and there is considerable empirical support for the importance of all four pre-conditions as risk factors (O’Reilly et al., 2014; Ward et al., 2005). The abuser must be motivated to abuse the child; he must overcome internal inhibitions; he must overcome external inhibitions; and he must overcome the child’s resistance to the abuse. Finklehor proposed that three main factors may underpin motivation to abuse children. First, abusers must feel some degree of emotional congruence about abusing children. Thus, abuse must satisfy some emotional need, such as the need to feel a high level of control in a sexual relationship or the need to remediate early experiences of sexual abuse by re-enacting them. Second, abusers must find children particularly sexually arousing. Third, abusers' access to adult sexual relationships may be blocked. In cases of intrafamilial sexual abuse this may be due to marital discord or to the abuser's spouse being incapacitated by physical or mental health problems. In extrafamilial sexual abuse or sibling abuse, lack of access to adult sexual partners may be due to poor social skills or social anxiety in contexts involving potential adult sexual partners.

The abuser's motivation to abuse a child must be coupled with some way of overcoming internal inhibitions to abuse children. That is, the abuser must have a strategy for neutralizing the belief that sexually abusing the child is illegal and may lead to negative consequences for the abuser and the child. Alcohol or drugs may be used to overcome inhibitions. So also may distorted justificatory cognitions, for example: 'She provoked me; I can't control myself; We're in love; It will do no harm because its only a game.' Aspects of the abusers' personalities may also predispose them to easily overcoming internal inhibitions. These include extreme impulsivity (which may be associated with personality disorder), intellectual disability, psychosis or senility.

Even if potential perpetrators are motivated to abuse children and are capable of overcoming internal inhibitions, for abuse to occur they must also be able to overcome external factors that would prevent abuse. Lack of parental supervision, social isolation, and crowded living conditions all create opportunities where the abuser may have little difficulty in overcoming external factors that might prevent the abuse. This is particularly true in situations where the abuser occupies a powerful social role with respect to the child and is able to use this position and power to create a secret context for abuse. The abuser must also be able to use coercive methods to overcome the child's resistance and prevent the child's disclosure. Bribes and rewards for compliance or threats and punishments for non-compliance are typically used.

Family risk and protective factors

Lack of parental supervision, a non-supportive and non-protective relationship with non-abusing parents are central risk factors that create opportunities for both intrafamilial and extrafamilial CSA. Bentovim et al. (1988; Bentovim, 1992) identified two patterns of family functioning in cases of father–daughter incest. These are the disorganized and over-organized patterns of family functioning. In disorganized families, CSA occurs because the chaotic way the family functions entails few external inhibitors for the father's or older sibling's abuse of the children. The father typically abuses a number of children, and this is partially acknowledged within the family but kept secret from the public. The father bullies the family into accepting his right to abuse the children, so the abuse serves to regulate conflict within the family. These families respond to the disclosure of abuse with less intensity than over-organized families, and incorporate professionals into them like members of an extended family to help them manage their many problems which often include social disadvantage, educational difficulties, physical child abuse, neglect and marital discord. These professionals may mirror the dysfunctional non-protective patterns of the family unless members of the professional network agree on clear roles for all professionals.

Over-organized families apparently function well. There is usually adequate childcare, well-established rules, roles and routines for managing all the tasks of family life, and a marital relationship that appears superficially to be functional. The father typically abuses a single child. This is kept secret and remains unacknowledged within the family. Sexual dissatisfaction and conflict avoidance within the marital relationship and a non-supportive relationship between the abused child and the mother characterize these families. Physical illness or psychological problems such as depression may contribute to the mother's involvement in an unsatisfying relationship with her partner and an unsupportive relationship with her daughter. The father and daughter may take on parental roles with respect to the ill mother, or the father may take on the role of the bully to whom both the mother and daughter are subordinate. In other instances sexual dissatisfaction within the marriage may be associated with the father viewing himself as subordinate to his partner. In these cases, the father and daughter may both adopt child-like roles with respect to the mother. Over-organized families usually respond more intensely than disorganized families to disclosure of sexual abuse. Because of the discrepancy between the idealized superficial public image of the family and the reality of sexual abuse, mothers in these families may file for divorce, fathers may attempt suicide, and abused children may show significant distress because of their perceived role in disrupting the family.

In both disorganized and over-organized families a central risk factor is the absence of a protective relationship between the non-abusing parent and the child. With intrafamilial sexual abuse, where the non-abusing parent offers the child support, and for extrafamilial abuse, where both parents offer the child support, these relationships are protective factors. Secure parent–child attachment and authoritative parenting within the context of a flexibly organized family in which there is clear communication create a protective context for youngsters who have been sexually abused by someone outside the family. With intrafamilial abuse, a central protective factor is the insistence by the non-abusing parent that the abusing parent leaves the home and engages in treatment and has no unsupervised contact with the child.

Social network risk and protective factors

Features of the child's broader social context may influence their adjustment to CSA (Crosson-Tower, 2015; Goodyear-Brown, 2012; Kendall-Tackett et al., 1993; Lyon & Ahern, 2011; Spaccarelli, 1994). Social contexts in which the child and abuser are relatively isolated create opportunities for abuse and re-abuse and so isolation is an important risk factor. High levels of stress coupled with low social support in the wake of disclosure, particularly, may compromise the child's ability to cope adequately with this stressful period. In contrast, children who are offered high levels of support tend to show better adjustment.

Treatment system factors

Features of the treatment system, which includes the family, the treatment team, and involved professionals and agencies may place the child at risk for either ongoing sexual abuse, a poor response to treatment or long-term adjustment problems (Connon et al., 2011; Glaser, 2008). Denial of the abuse, rejection of the treatment team's formulation, and refusal to co-operate with the treatment plan may all be viewed as risk factors. Lack of co-ordination among involved professionals or disagreements about whether the case warrants a diagnosis of sexual abuse increase the risk of further abuse. Factors associated with child protection processes including a lack of support at disclosure, multiple investigative interviews, multi-placement experiences, extended legal proceedings, and proceeding which are not child-centred or child-friendly all contribute to the amount of stress experienced by the child. Treatment systems that are not sensitive to families' cultural and ethnic beliefs and values may place children at risk because they may inhibit engagement in or promote dropout from treatment and prevent the development of a good working alliance.

In contrast to these risk factors, certain features of the treatment system may be viewed as protective insofar as they reduce the risk of further abuse and enhance the possibility of positive changes within the child's psychosocial environment, which in turn reduce the risk of long-term adjustment problems. Within the treatment system, co-operative working relationships between the treatment team and the family and good co-ordination of multi-professional input are protective factors. This may create a context within which the child is required to engage in a single disclosure interview and remain living within the family home without threat of further abuse (in cases of intrafamilial abuse). This may involve the abuser leaving the family home or a temporary or permanent basis. Treatment systems that are sensitive to families' cultural and ethnic beliefs and values are more likely help families engage with and remain in treatment, and foster the development of a good working alliance. Families are more likely to benefit from treatment when all family members accept that abuse has occurred. Acceptance of the formulation of the problem given by the treatment team and a commitment to working with the team to resolve it are also protective factors.

Taking action when there is a first-line suspicion of child sexual abuse

Assessment in cases of CSA is ideally conducted by a multi-disciplinary team which includes members from law enforcement agencies, statutory child welfare agencies and child health agencies (van Eys & Beneke, 2012). All action taken in cases of CSA must be taken in the best interests of the child. In some instances these interests may conflict with those of the parents. Different courses of action will be required depending upon the relationship of the child to the alleged abuser and the level of suspicion that abuse has occurred.

With extrafamilial abuse, where the alleged abuser lives outside of the child's home, immediate action may be taken in almost all cases. Arrangements may be made to interview the child and family without placing the child at risk for further abuse or intimidation. The only complicating factor in these cases is where both parents have a particularly close relationship with the alleged abuser and are likely to disbelieve the child. In these cases and in cases of sibling abuse, however, it is often possible to arrange for parents to put protective measures in place to prevent further abuse without them fully accepting the reality of the abuse, since the alternative may be for the child to be placed in care. Dealing with disbelief may then be a focus for subsequent family-based intervention.

In cases of intrafamilial parent–child sexual abuse a rapid response to allegations of abuse may do more harm than good. It is useful in these cases to draw a distinction between vague first-line suspicions and well-founded and well-documented second-line suspicions (Furniss, 1991). With vague first-line suspicions, little information on the factors listed in Table 21.1 and Figure 21.2 is available. A problem with arranging a full assessment without considerable forethought and planning is that, if sufficient information cannot be gathered to determine whether or not abuse occurred, children may return to situations in which they are intimidated into retracting their disclosure of sexual abuse.

So, with first-line suspicions the main course of action is to convene a professional network strategy meeting of all involved professionals to pool information and plan further information-gathering strategies such as a review of contacts with the family doctor or a behaviour monitoring programme at school. Junior staff should involve senior staff in these cases from the outset. This professional network strategy meeting should include the *trusted person*, if such exists, to whom the child made a complete or partial disclosure, the child's teacher, the family doctor, health professionals, or professionals from other services such as probation who have had significant contact with the family, the local law enforcement or child protection personnel who have responsibility for child protection cases, and other relevant professionals. It is vital that a case co-ordinator be appointed to take responsibility for directing this process of information-gathering and arranging periodic reviews with the professional network to determine if the vague first-line suspicion has developed into a clear and well-documented second-line suspicion. In jurisdictions where there is mandatory reporting of all cases of suspected child abuse, such a report must be made at this early stage unless there is a stipulation in the mandatory reporting policy about the amount of supporting evidence that must be available before reporting suspected child sexual abuse.

Table 21.1 A framework of factors indicative of child sexual abuse

The child's behaviour	**Sexualized behaviour**	• Change in routine behaviour patterns so that the child displays more sexualized behaviour than usual • Excessive and age-inappropriate sexual play or conversation either solitary or with others • Excessive, age-inappropriate and often relatively public sexual self-stimulation • Attempts to engage others in sexual activities through exposing sex parts to others, rubbing sex parts against others, inappropriate kissing, and requesting to engage others in sexual acts
	Non-sexualized conduct and emotional problems	• Change in the child's behaviour so that the child shows increased conduct and emotional problems • Increased externalizing behaviour problems and related emotions and beliefs (aggressive behaviour, destructiveness, hyperactivity, running away, illegal behaviour, substance abuse, anger, frustration, suspicion and lack of trust of others) • Increased internalizing behaviour and related negative emotions and beliefs (social withdrawal, somatic complaints, self-injurious behaviour, anxiety, depression, low self-esteem)
	Academic problems	• Deterioration in academic performance at school
	Response to abuse-related stimuli	• The child avoids persons or situations associated with the abuse • The child avoids persons or situations symbolic of the abuse (e.g. refusal to go to bedroom if abuse happened in a bedroom; refusal to undress for swimming; avoidance of older men if the perpetrator was a man) • The child responds to persons or situations associated with the abuse or symbolic of the abuse with distress and intensification of emotional and conduct problems • The child responds to persons or situations associated with the abuse or symbolic of the abuse by showing regressive attachment behaviour towards the mother or primary caregiver (e.g. clinging and refusing to be left alone)
		• The child says a person within or outside the family sexually abused him or her

The child's account	**Content of the account of the sexual abuse**	• The description of the abusive events may entail sexual knowledge that is beyond that usually displayed by children of the same age • Within the account the child describes attempts by the perpetrator to conceal the sexual abuse through bribery or coercive threats
	Form of the account of sexual abuse	• The child's account is given spontaneously or in response to a non-leading question • The account is given in age-appropriate language • The account is given from a child's point of view rather than from an adult's perspective • The account is contextually detailed and internally consistent • The account is given in an emotive way and the emotions (anger, fear, distress, sadness) are congruent with the events described • The account does not sound like a rehearsed story which the child has been coached to tell by an adult
	Form of repeated accounts	• The same sentence structure is not used in a retelling of the account (as would occur if the account were a rehearsed story) • On repeated telling, the account is consistent for major details but may be inconsistent for minor details
	Anatomically correct dolls and drawings in giving the account	• Accounts of the abusive events enacted using anatomically correct dolls or portrayed with drawings are consistent with verbal accounts
The child's medical condition		• The child's medical condition is consistent with the account of the abuse • Overt or covert trauma to genital or rectal areas • Infections of the genital or rectal areas • Sexually transmitted disease • Foreign bodies in genital, urethral or anal openings • Abnormal dilatation of the urethral, anal or vaginal openings • Torn or blood-stained underclothing • Pregnancy
		• The disclosure is given some time after the abuse occurred

The child’s context	**Context of the disclosure**	• There may have been a pattern of previous allegations and retractions • Contradictory accounts of circumstances surrounding the abuse are given by the alleged perpetrator (and those sympathetic to the perpetrator) • The alleged perpetrator (and sympathizers) blame a third party (e.g. babysitter) • The child displays an ability to distinguish fact from fantasy
	Supporting evidence	• There are witnesses of the actual abusive acts • There are witnesses of some aspects of the child’s account such as the circumstances surrounding the abusive act but not the acts themselves, and these are consistent with the child’s account • The child’s social context places him or her at risk for sexual abuse (the alleged abuser is motivated to abuse the child; the alleged abuser is capable of overcoming internal inhibitions which might prevent him or her abusing the child; the abuser has access to child in the absence of other adults; the abuser occupies a position of social power with respect to the child and those who support the child; the child has a low level of parental support vis-à-vis the abuser; the child lives in a sociocultural context in which he or she believes that disclosure will not be believed by other adults) • The child has personal characteristics which place him or her at risk for sexual abuse (lack of assertiveness to adults; highly compliant with a strong need to please; intellectual disability)

Central to this process is ongoing contact between the trusted person and the child. The trusted person may be a teacher, a school counsellor, a psychologist or an adult involved in the child’s leisure or sports activities. The trusted person should continue to have regular contact with the child and monitor the child’s willingness to make a full disclosure in a video recorded interview. The trusted person must let the child know in realistic terms what may happen following disclosure. With extrafamilial abuse parents may or may not believe the child. If they don’t believe the child and are not prepared to take steps to protect the child from further abuse, the chid may be placed in care. If parents believe the child’s disclosure of abuse, they may attempt to prevent contact between the child and the alleged abuser. These attempts may vary in their potential effectiveness and possible negative repercussions for the child. With intrafamilial abuse the non-abusing parent may or may not believe the child. Where the non-abusing parent believes the child, they may insist that the perpetrator (for example, the father or step-father) leave the house. Where the non-abusing parent disbelieves the child, the child may be placed in residential care. Other possibilities should also be discussed with the child. The process of sustaining ongoing contact with a child undergoing chronic abuse is highly stressful. It is important for all members of the professional network to support the trusted person during this work. If the trusted person feels fully supported by the professional network, they will convey confidence and support to the abused child, who in turn will be more likely to feel free to engage in a videotaped disclosure interview.

There is an argument that holding professional network strategy meetings without the consent of the child or the involved family (in cases of suspected intrafamilial abuse) is unethical insofar as client confidentiality is being breached. The main argument against this position is that informing families that intrafamilial child abuse is suspected on the basis of a vague first-line suspicion may lead to the child being coercively silenced by the abuser and subjected to long-term abuse under threat of violence. In many jurisdictions there is agreement that breaching confidentiality in professional network strategy meetings is ethically acceptable because it is done in the best interests of the child. The ethics of conducting pre-assessment network meetings and breaching client confidentiality must be discussed by professionals in child protection networks sufficiently to permit professionals to develop local working procedures with which they feel ethically comfortable. If these issues are not discussed and clarified at a local level, the professional network will have co-ordination difficulties that will inevitably lead to problems in protecting abused children.

Different jurisdictions have different approaches to reporting child sexual abuse. In some, there is a legal requirement for psychologists to report all suspected cases of child abuse. In others, there is no requirement for mandatory reporting, or psychologists are not among the professionals required to report child abuse.

In some jurisdictions where there is mandatory reporting, such reports may not be required until the stage when a well-documented second-line suspicion of sexual abuse has been developed. Once a decision has been made to investigate a case of suspected child sexual abuse, all professionals should work together and take account of the traumatizing effects of repeated interviews, repeated physical examinations, and sensitively conducted interviews and medical examinations. It is also vital that arrangements be made for taking the child into care immediately following the preliminary assessment session, in case the child alleges abuse and a protective environment within the child's home cannot be agreed on by family members. For example, in cases where children allege that they have been repeatedly abused by the father and threatened with violence if they disclose, and both father and mother deny the abuse, it is vital that the child be taken into care immediately. If the child is returned home, inevitably the child will be intimidated and threatened with violence, and the child in response will retract their statement. The abuse will continue and the child will be unlikely to make further allegations because of the threats of violence from the abuser and the ineffectiveness of the professional network in providing protection. Where children do not make a clear allegation in an investigative interview, then contact with the trusted person may continue with periodic feedback to meetings of the professional network until the child is prepared to make a clear statement in an investigative interview. Where the non-abusing parent believes the child and agrees to protect the child, the child may return home provided the abuser leaves the household. Many jurisdictions have a policy or practice guidelines which translate into a flow diagram that approximates that given in Figure 21.3 to guide psychologists and other professionals in responding to CSA allegations.

Once it has been decided to conduct an assessment, a contract for this may be offered to the family in a courteous way. Obviously a long delay between offering an appointment and conducting the assessment will place the child at risk of further intimidation. Parents should be asked to give written consent for the assessment to be conducted and this should include clauses concerning recording of interviews and medical examinations. Refusal to give consent for the child to be assessed in conjunction with other information may be grounds for pursuing child protection proceedings.

Assessing the validity of children's allegations of sexual abuse

Cases of suspected child sexual abuse may be referred as new cases for assessment. Alternatively, the possibility of sexual abuse as an explanation for a clinical presentation emerges while working with cases referred for some other problem such as recurrent abdominal pain or anorexia. In a study of over 500 consecutive referrals of allegations of sexual abuse, Jones and McGraw (1987) concluded that less than 10% of allegations were fictitious and in most of these cases the fictitious allegations were part of a conflictual process in families where separation or divorce had occurred. Factors which raise suspicion of child abuse are set out in Table 21.1. These factors, which have been identified in comprehensive literature reviews, have been divided into those related to the child's behaviour, those focusing specifically on the child's account of the sexual abuse, those related to the child's medical conditions, and those related to the child's social context (Finkel, 2011; Glaser, 2008; Heiman, 1992; Hewitt, 2012; Lyon & Ahern, 2011; Steele, 2012; Veitch Wolfe, 2009). Sexualized behaviour and avoidance of possible abuse-related situations occurring in conjunction with other difficulties such as conduct problems and problems, attainment difficulties, and relationship problems are the main features of children's behaviour which raise suspicion of child sexual abuse.

Various aspects of the content and form of the child's account lend support to the view that sexual abuse has occurred. These include sexual knowledge that is not age-appropriate; the use of age-inappropriate language; the account is given from the child's perspective, is contextually detailed and internally consistent, is given in an emotive way, and describes attempts by the abuser to silence the child through the use of coercion or bribery. If children give their accounts spontaneously in response to an open non-leading question; if the answer does not sound like a rehearsed story; or if the account is consistent for major details with repeated telling but has a different sentence structure, this lends support to the view that the allegations are true. Accounts given using anatomically correct dolls or drawings must also be consistent with the verbal account given by the child.

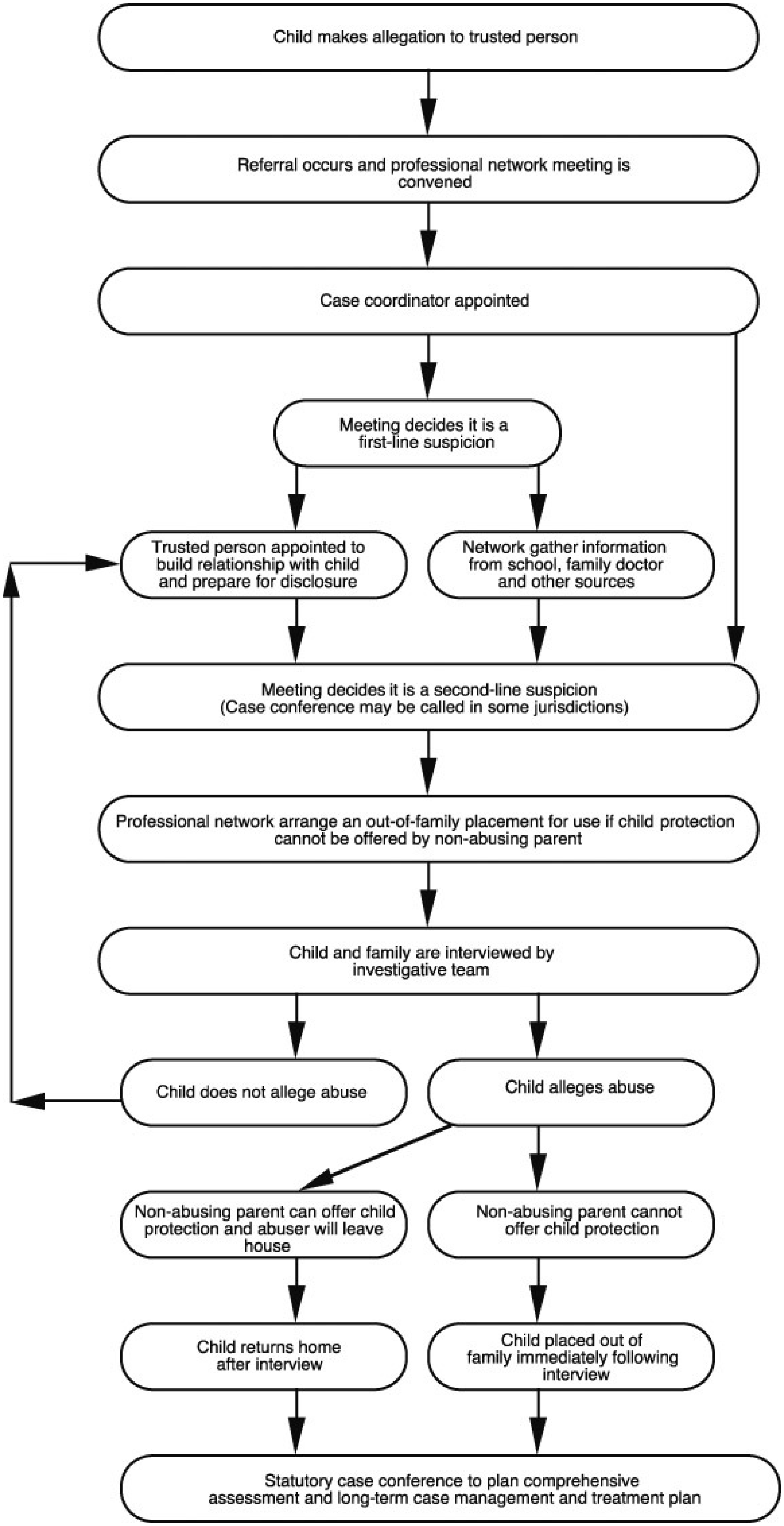

Child makes allegation to trusted person
Referral occurs and professional network meeting is convened
Case coordinator appointed
Meeting decides it is a first-line suspicion
Trusted person appointed to build relationship with child and prepare for disclosure
Network gather information from school, family doctor and other sources
Meeting decides it is a second-line suspicion (Case conference may be called in some jurisdictions)
Professional network arrange an out-of-family placement for use if child protection cannot be offered by non-abusing parent
Child and family are interviewed by investigative team
Child does not allege abuse
Child alleges abuse
Non-abusing parent can offer child protection and abuser will leave house
Non-abusing parent cannot offer child protection
Child returns home after interview
Child placed out of family immediately following interview
Statutory case conference to plan comprehensive assessment and long-term case management and treatment plan

Figure 21.3 Taking action following an allegation of child sexual abuse

Increased confidence may be placed in the truth of the child's allegations if the child's medical condition is consistent with the verbal account given of the abuse. Some of the physical correlates of various types of sexual have been listed in Table 21.1.

Certain features of the context of the disclosure lend support to allegations of abuse. An account that is given some time after the abuse has occurred; one that occurs against a history of allegation and retractions by the child; and one that contradicts accounts are given by the alleged perpetrator and those that sympathize with him is more likely to be true than an account that does not have these features. Allegations are more likely to be true if it can be demonstrated that the child has the ability to distinguish between fact and fantasy and if there are witnesses for the abusive acts or events surrounding these which are consistent with the child's account.

If the child's social context contains risk factors that have been shown empirically to be associated with CSA, then it is more likely that the child's allegations are true. Some of the more important risk factors were discussed earlier and are listed in Figure 21.2.

Assessment

With cases of sexual abuse, assessment progresses through two main phases (Finkel, 2011; Glaser, 2008; Heiman, 1992; Hewitt, 2012; Lyon & Ahern, 2011; Steele, 2012; van Eys & Truss, 2012; Veitch Wolfe, 2009). The first phase is concerned with the question: 'Has this child been sexually abused?' If this question is answered in the affirmative, the second assessment question is: 'What impact has the abuse had on the child and family and what elements should be included in a multi-systemic treatment package for the child and family?' A complicating factor in the assessment of cases of child sexual abuse is that the data used to answer the first question may be required for use as evidence in legal proceedings to ensure the child's protection or to prosecute the abuser.

Of course, the abuser, the abused child, some members of the family and some members of the professional network are aware of this, and this has an impact on their co-operation with the assessment process. Usually the abused child and those who sympathize with the child's position want the assessment to proceed, but fear that if the child's position is not believed or supported by the results of the assessment, then the child will be punished by the abuser. Typically the abuser does not want the assessment to proceed but may superficially co-operate, since refusal to co-operate may be interpreted as an admission of guilt. Throughout the process of assessment, the abuser may attempt to intimidate the abused child into retracting the allegations of abuse. Therefore it is vital that the first phase of the assessment be brief, provide an opportunity for the child and other family members to give detailed accurate information on the abuse if it occurred, and to do so within a social context where the child is protected from intimidation by the abuser. The child and family must also be informed of the probable short-, medium- and long-term consequences if the assessment indicates that abuse occurred and, indeed, if the assessment fails to answer this question.

The information gathered in the assessment must throw light on a complex range of factors listed in Figures 21.1 and 21.2 and Table 21.1, and for legal proceedings this information must meet certain criteria (Myers, 2011b, c; Lanning, 2002; Pence, 2011; Saywitz et al., 2011). For child protection legal proceedings, there must be sufficient evidence to state that *in the balance of probabilities* child abuse has occurred. However, it must be shown *beyond reasonable doubt* that child abuse occurred in criminal legal proceedings where the alleged abuser is charged with a sexual offence.

Comprehensive assessment schedule

A schedule for the comprehensive assessment of CSA cases is presented in Table 21.2. The schedule outlines the members of the child's family and professional network who should be interviewed and important areas to cover in these interviews. There is also reference to special assessment procedures such as forensic medical examination of the child. However, the cornerstone of the assessment procedure is the interview (or series of interviews) with the child, since it is the child's account of the abuse which is the main basis for deciding whether or not abuse occurred.

Table 21.2 Components of a comprehensive child protection assessment package for use in cases of child sexual abuse

Evaluation target	*Evaluation methods and areas*
Child	• Child's spontaneous account of the abusive incidents • The location of the abuse • The frequency and duration of the abuse • The use of violence or threats • The presence of other people during the abuse • The use of drugs or alcohol by the perpetrator or the child • Whether photographs or recordings of the abuse were made • Impact of the abuse on the child and traumagenic dynamics of sexual traumatization, stigmatization, betrayal and powerlessness • Child's perception of risk factors • Child's perception of the non-abusing parents capacity to be protective • Coping strategies and personal strengths and resources, particularly assertiveness • Child's wishes for the future

	• Medical examination of the child • Sexual behaviour checklists to assess sexualized behaviour • General child behaviour checklist to assess internalizing and externalizing behaviour problems • Assessment of cognitive abilities and attainment levels if disability or school related problems are present
The non-abusing parent(s)	• The degree to which the parent believes the child's allegations • The degree to which the parent aids the child's disclosure • The degree to which the parent emotionally supports and empathizes with the child • The degree to which the parent views the abuser and not the child as solely responsible for the abuse • The degree to which the parent pursues options that will separate the abuser from the child and protect the child • The degree to which the parent co-operates with statutory agencies such as social services • The degree to which the parent is prepared to discuss the abuse with other family members such as siblings or grandparents • The degree to which the parent has protected themselves from sexual abuse • The degree to which the parent can enlist other supports to help them • Relevant risk factors (abuser's motivation and overcoming internal and external inhibitions) • Reconstruction of an account of factors surrounding the abusive incidents • Personal resources and problems (particularly history of personal abuse) • Parenting skills and deficits
Abuser	• Denial of the abuse • Denial of the frequency or severity of the abuse • Denial of the abuser's addiction to the abusive acts • Denial of the effects of the abuse effects • Denial of the abuser's responsibility for the abuse • Relevant risk factors (motivation and overcoming internal and external inhibitions) • Reconstruction and account of the abusive incidents • Personal resources and problems (particularly history of personal abuse) • Parenting skills and deficits • In extrafamilial and sibling abuse, the degree to which parents can jointly support the abused child

Marital couple	• In sibling abuse, the degree to which parents can set limits on abuser without scapegoating • In father–daughter incest, the couple's wish to separate/divorce permanently; the couple's joint denial of abuse and wish to remain together; the couple's acceptance of abuse, requirement that abuser leave the family home, and wish to work towards eventual family reunification
Siblings	• Possibility that they may also have been abused • Perception of risk factors • Perception of the parents capacity to be protective • Wishes for the future • Perception of routines of family life
Role of extended family	• Acceptance or denial of the abuse • Perception of risk factors • Perception of the non-abusing parent's capacity to be protective • Wishes for the future • Perception of routines of family life • Childcare skills • Potential for contributing to a long-term child protection plan
Role of other involved professionals	• Expert views of risks and resources within the family by health, education, social services and justice professionals • Potential future involvement in supporting the family and protecting the child in future • Community resource agencies' potential for supporting the family and protecting the child in future

Interviewing children

The principal aim of interviews with children is to obtain their account of abusive incidents in response to non-leading questions (Jones, 2003; Saywitz et al., 2011; Steele, 2012). A second aim is to assess the impact of abuse on the child. In particular, it is important to assess any abnormal behavioural patterns and the traumagenic dynamics of sexual traumatization, stigmatization, betrayal and powerlessness. A third aim of interviews with children is to assess their perception of risk and protective factors. In particular, an account of the child's perception of the non-abusing parent's capacity to be protective is required. A fourth aim of child interviews is to establish the ways in which the child has coped with CSA and their personal strengths and resources, particularly assertiveness and self-protective skills. It is also important to obtain a clear account of the child's wishes for the future.

Interviews may be conducted in any setting where an uninterrupted meeting can occur for about an hour and where there is sufficient space and lighting to video-record the interview. Drawing materials and anatomically correct dolls are useful aids to interviewing. Ideally the child should be interviewed alone. If the non-abusing parents or child advocate insist on being present, they should sit outside of the child's visual field and remain silent or view the interview from behind a one-way screen, to minimize their impact on the child's account.

The interview may begin with rapport building questions about school and hobbies and move from there to open questions that may elicit information about abusive events.

> I have spoken to Mrs Duffy, and she said that you were worried about some things that were happening recently. Can you tell me a bit about that?
>
> Your Mum told me that someone has being doing things with you that are upsetting. Can you tell me the stuff you told her last week?

If these open inquiries do not lead to a spontaneous account, closed questions may be asked:

> Has anyone ever touched your private parts that your swimming suit covers so it made you feel bad?…Can you tell me about that?

Leading questions which suggest who did what should be avoided. For example, here is a leading question:

> Did daddy touch you on your Mary Anne?

If the child gives a verbal account and some clarification is required, there are some things that should be avoided. Do not use any other words for body parts other than those used by the child. It is good practice to ask:

> Where did he put his willy?

and incorrect to ask:

> Where did he put his penis?

Avoid asking questions about the alleged perpetrator which use a pronoun rather than the child's name for the person. Ask:

> What did Daddy do then?

not:

> What did he do then?

Avoid lecturing the child about the rights and wrongs of child abuse or asking questions that might make the child feel guilty such as: 'Why did you do that?'

With drawings or anatomically correct dolls, they should be used as an aid to factual interviewing, not as a projective test. Research on anatomically correct dolls shows that children who have not been sexually abused inspect and touch sexual body parts but do not enact sexual activities such as oral, anal or genital intercourse with the dolls (Faller, 2005; Koocher et al., 1995). Neither do anatomically correct dolls lead to undue distress or traumatization. Anatomically correct dolls are a useful aid to communication. They allow the interviewer to find out the child's idiosyncratic terms for body parts and to provide a medium through which to communicate about sexually abusive acts. With pre-school children caution is required because of the suggestibility of younger children. Anatomically correct dolls should probably only be used after an allegation of abuse has been made rather than beforehand.

In view of conclusions from research on anatomically correct dolls, the following practice guidelines are offered. First, children may be shown the dolls clothed and asked to identify a doll that represents themselves and one that represents the alleged abuser. Children may wish to name other dolls as representing other family members. Second, children may be asked to undress dolls representing themselves and the alleged abuser, inspect them and name the private parts of the dolls using his or her own terms. Third, children may be invited to enact with the dolls, the abusive events that occurred between themselves and the abuser. A similar procedure may be used with drawings, where children draw themselves and the abuser, fill in their private parts, and then point to 'what went where'.

Once the child has given a spontaneous general account of the abuse, information about specific details should be obtained. Important areas to cover are:

- the location of the abuse
- the frequency and duration of the abuse
- the use of violence or threats
- the presence of other people during the abuse
- the use of drugs or alcohol by the perpetrator or the child
- whether photographs or recordings of the abuse were made
- the child's psychological reactions to the abuse.

With younger children it is important to ask for this information in terms of yardsticks that are meaningful to the child. For example, in obtaining information about the duration of the abuse, select significant annual events in the child's life such as Christmas or summer holidays as the basis for questions:

> Did this first happen before Christmas or after Christmas?

Wolfe et al.'s (1991) Child Impact of Traumatic Events Scale may be used to evaluate some the effects of the abuse on the child in a relatively structured way. This structured interview is described in Table 21.3.

Most abused children have been threatened that disclosure will be punished. It is not unusual for children to show signs of fear and ask the interviewer not to tell anyone about the abuse. It is important to empathize with the child's discomfort, but to avoid assuring the child that everything will be fine and no one will be told about the interview, since these assurances are untrue. Usually the period following disclosure is very stressful for the child, because the child's account of the abuse is reported to the professional network, the family and in some instances a court. Because of this, empathic and supportive responses like the following may be used:

Table 21.3 Psychometric instruments that may be used as an adjunct to clinical interviews in the assessment of child sexual abuse

Construct	*Instrument*	*Publication*	*Comments*
Reactions to anatomically detailed dolls	Anatomical Doll Questionnaire	Levy, H., Markovic, J., Kalinowski, M., Ahart, S., & Torres, H. (1995). Child sexual abuse interviews. The use of anatomical dolls and the reliability of information. *Journal of Interpersonal Violence, 10*, 334–353.	The interview offers a reliable and structured way to code responses to anatomically detailed dolls.
Behaviour problems arising from sexual abuse	Child Sexual Behaviour Inventory (CSBI)	Friederich, W.N. (1997). *Child Sexual Behaviour Inventory: Professional manual.* Odessa, FL: Psychological Assessment Resources. Friederich, William N. et al. (1992). Child Sexual Behavior Inventory: Normative and Clinical Comparisons.	A 38-item parent report measure of sexual behaviour that covers boundary issues, sexual interest, exhibitionism, sexual intrusiveness, gender role behaviour, sexual knowledge, self-stimulation, voyeuristic behaviour, and sexual anxiety which discriminates between CSA and

		Psychological Assessment, 4, 303–311.	non-CSA children.
PTSD symptoms and belief systems about self and others arising from sexual abuse	Child Impact of Traumatic Events Scale – Revised	Wolfe, V., Gentile, C. et^Sal (1991). Child Impact of Traumatic Events Scale. A measure of post-sexual-abuse PTSD symptoms. *Behavioural Assessment, 13*, 359–383.	This 78-item structured interview children yields scores on the following sub-scales: intrusive thoughts; avoidance; hyperarousal; sexual anxiety; negative reactions by others; social support; self-blame; guilt; personal vulnerability; dangerous world; empowerment; and eroticism.
Trauma reactions	Trauma Symptom Checklist for Children (TSCC)	Briere, J. (1996). *Trauma Symptom Checklist for Children*. Odessa, FL: Psychological Assessment Resources.	This 54-item self-report questionnaire for 8–16 year olds yields scores for anger, anxiety, depression, dissociation, posttraumatic stress, and sexual concerns.
	Trauma Symptom Checklist for Young Children (TSCYC)	Briere, J. (2005) *Trauma Symptom Checklist for Young Children.* Odessa, FL: Psychological Assessment Resources.	A 90-item caretaker-report measure of 3–12 year old children's trauma- and abuse-related symptomatology which assesses intrusion, avoidance, arousal, anxiety, depression, anger, dissociation and sexual concerns.
Dissociative states	Child Dissociation	Putnam, F., Helmers, K., & Trickett, P. (1993). Development, reliability and	A 20-item parent-report scale to measure

following PTSD	Checklist (CDC)	validity of a child dissociation scale. *Child Abuse and Neglect, 17*, 731–742.	children's dissociative responses to trauma.
	Adolescent Dissociate Experience Scale (A-DES)	Armstrong, J., Putnam, F., Carlson, E., Libero, D., & Smith, S. (1997). Development and validation of a measure of adolescent dissociation: The Adolescent Dissociative Experiences Scale. *Journal of Nervous and Mental Disease, 185*, 491–497.	A 30-item self-report measure that yields an overall dissociation score and scores for dissociative amnesia, absorption and imaginative involvement, passive influence, and depersonalization and derealization.
Sexual abuse of boys	Structure Interview of Symptoms Associated with Sexual Abuse (SASA)	Wells, S., McCann, J., Adams, J., Voris, J., & Duhl, D. (1997). A validational study of the Structure Interview of Symptoms Associated with Sexual Abuse (SASA) using three samples of sexually abused, allegedly abused and nonabused boys. *Child Abuse and Neglect, 21*, 1159–1167.	A 26-item structured questionnaire for parents of sexually abused boys.
Exposure to sexual	Checklist of Sexual Abuse and Related	Spaccarelli, S., & Fuchs, L. (1997). Variability in symptom expression among sexually abused girls:	This checklist of 70 events yields scores for three sub-scales: abuse-specific events;

stressors	Stressors (C-SARS)	Developing multivariate models. *Journal of Clinical Child Psychology, 26*, 25–35.	abuse-related events; and public-disclosure events.
Cognitive appraisals	Negative Cognitive Appraisals (NCA) Scales	Spaccarelli, S. (1995). Measuring abuse stress and negative cognitive appraisals in child sexual abuse: Validity data on two new scales. *Journal of Abnormal Child Psychology, 23*, 703–727.	A 56-item self-report scale that assesses negative cognitive appraisals of threat, harm or loss associated with abuse.

I know it's a bit hard to talk about this stuff. But you are doing very well.

There is also a temptation to cuddle children when they look fearful and distressed. This should be avoided because physical cuddling may have sexual connotations for sexually abused children.

Because of the stressful nature of disclosure, periods of questioning may be interspersed with periods of free play. Therefore it may be useful to have other play materials available in the interviewing room.

At the end of the disclosure interview or interviews it is important for the child and the non-abusing parent(s) to meet with the interviewer and the interviewer to summarize the information the child disclosed. This should be done even if the non-abusing parent was in the interview room but out of the child's field of vision or behind a one-way screen. This handover meeting marks the beginning of helping the non-abusing parent(s) develop a protective relationship with the child. In cases of intrafamilial abuse, the non-abusing parent may be torn between disbelief and the wish to protect the child. This meeting will therefore be stressful for the non-abusing parent. If at the end of this meeting, the non-abusing parent can agree to protect the child, then a member of the professional network, ideally a law enforcement officer, should confront the abuser before the child and the non-abusing parent have had time to meet with the abuser. This is important, since the abuser may intimidate and coerce the child and the non-abusing parent into retracting the allegations of abuse. In cases of father–child incest, ideally the abuser should move out of the home under a court-ordered injunction.

In cases of intrafamilial abuse, if the non-abusing parent is unable to believe the child's disclosure and unable to make a commitment to protect the child, then an immediate emergency out-of-home placement under a child protection order should be made. It is important that the foster parents or childcare key worker for abused children meet with them, the non-abusing parents and the interviewer for a handover meeting in which the interviewer explains the allegations and the reason for the out-of-home placement in front of children and their non-abusing parents. It is important to clarify visiting arrangements at this point and to maximize contact between the child and the non-abusing parent, since in some cases after a brief period the non-abusing parent decides to believe the child's account of the abuse and to offer protection. In these instances the child can return home after a brief out-of-home placement.

The importance of planning and co-ordination within the professional network prior to conducting disclosure interviews is critical for maximizing the protection of the child, especially in cases of intrafamilial abuse. Failure to set up an emergency out-of-home placement for use in case the non-abusing parent cannot protect the child or failure to arrange for a law enforcement officer to be available to confront the abuser after the disclosure interview, may lead to situations where the child is exposed to further intimidation, coercion and ultimately more severe abuse.

Other aspects of the child assessment

A full physical and medical forensic examination of the child should be conducted as part of a comprehensive assessment following guidelines for good practice (Finkel, 2011). Parents and teachers may be asked to complete both the Child Behaviour Checklist (Achenbach & Rescorla, 2000, 2001) and the Child Sexual Behaviour Inventory (Friedrich, 1997) to obtain information of internalizing, externalizing and sexualized behaviour problems. Other instruments listed in Table 21.3 may be used as required. PTSD can be evaluated using structured interviews and self-report scales in Table 12.10 in Chapter 12 on anxiety disorders. Where intellectual disability may be a risk factor in CSA or where attainment problems have occurred in response to CSA, a psychometric assessment of the child's abilities and attainments may be conducted following the guidelines in Chapter 8.

Evaluation of non-abusing parents

Interviews with non-abusing parents and conjoint interviews with non-abusing parents and abused children may be conducted to assess parents' capacity to protect abused children. Smith's (1995) framework for assessing protectiveness includes the following items:

- the degree to which the parent believes the child's allegations
- the degree to which the parent aids the child's disclosure

- the degree to which the parent emotionally supports and empathizes with the child
- the degree to which the parent views the abuser and not the child as solely responsible for the abuse
- the degree to which the parent identifies and pursues options that will separate the abuser from the child and protect the child
- the degree to which the parent co-operates with statutory agencies such as social services
- the degree to which the parent is prepared to discus the abuse with other family members such as siblings or grandparents
- the degree to which the parent has protected themselves from sexual abuse
- the degree to which the parent can enlist other supports to help them deal with vulnerabilities such as physical or intellectual disability.

In addition to assessing these items, non-abusing parents' childcare skills and deficits, their reconstruction of the abusive incidents or events surrounding them, and their perception of all relevant risk factors should be evaluated. In some instances psychological assessment of specific parental characteristics (e.g. intelligence) and psychopathology (e.g. depression) may be required, especially in cases where personal deficits of non-abusing parents created opportunities for the other parent to abuse the child.

Evaluation of the abuser

In cases of intrafamilial CSA, when the abusing parent or sibling is confronted with the allegations of abuse and their impact on the child and family, usually the abuse is denied. The following aspects of denial are assessed:

- denial of the abuse ('It never happened.')
- denial of the frequency or severity of the abuse ('It only happened once or twice and all I did was touch her once or twice.')
- denial of the abuser's addiction to the abusive acts ('I didn't feel compelled to do it. It was a casual thing.')
- denial of the effects of the abuse ('It will not do any harm.')
- denial of the abuser's responsibility for the abuse ('She provoked me. She was asking for it.')

The process of confrontation may be conducted in different ways. The abuser may be confronted with a videotape or transcript of the child's account of the abuse, or the abused child supported by the non-abusing parent and siblings may confront the abuser in a family meeting. Whatever method is used, the aim of this procedure is to determine the openness of the abuser to accepting responsibility for their wrongdoing, and not denying it.

Perpetrators engage in denial because not to do so may lead to prosecution, social stigmatization, acceptance of guilt and, in the case of father–child incest, leaving the family home. It is, important to empathize with the alleged abuser about his reasons for engaging in denial and to preface this with the statistic that in less than 10% of cases do children make false allegations (Jones & McGraw, 1987).

Furniss (1991) has developed a hypothetical interviewing style that may be used in family interviews where one or both parents deny the occurrence of intrafamilial sexual abuse. He explores who within the family is best and worst at bottling up secrets (such as birthday surprises). He asks each family member what they believe would happen if the abuse had occurred and the abuser admitted to it; who would be responsible for the abuse; who would be responsible for protection; what would be the consequences for those who failed to protect the child; and what would be the consequences for each family member's of lack of trust.

In addition to assessing level of denial, risk factors associated with motivation to abuse and ways of overcoming internal and external inhibitions, discussed earlier, should also be assessed. Where perpetrators admit to abuse, they should be helped to reconstruct a model of the abusive cycle. Perpetrators' personal resources and problems, particularly a history of personal abuse and parenting skills and deficits, should be evaluated.

Evaluation of parents

Conjoint interviews with the parents of the abused child may be used to assess the quality of their relationship. In cases of extrafamilial abuse, the evaluation of the couple focuses on the degree to which parents can work together in supporting the abused child. In cases of sibling abuse, there is the additional issue of the capacity of the parents to work as a team in confronting the abuser's denial, setting limits on his behaviour and yet not scapegoating him or ostracizing him from family life. In cases of parent–child incest, the evaluation of the couple should address the impact of the child's disclosure of abuse on their relationship. Couples respond to father–daughter incest in different ways. In some families it leads to separation and divorce. The mother believes the abused child's disclosure; the father leaves the family home permanently; and further contact between the father and children is supervised. In other families, the mother does not accept the abused child's disclosure. The couple remain living together. The abused child (and in some cases the siblings) is taken into care or placed with relatives, and the parents have supervised access to their children. A third response to disclosure of CSA is that the non-abusing parent believes the abused child's disclosure, accepts that the abuser must leave the family home to protect the abused child (and other children), but the couple want to engage in therapy that will eventually lead to family re-unification.

Evaluation of the siblings

Interviews with siblings of the abused child should focus on the possibility that they may also have been abused. In addition they may have information about risk factors, events surrounding the abusive episodes and other important aspects of family life.

Evaluation of role of extended family

Interviews with members of the extended family (for example, the couple's siblings or parents) may be conducted to assess their acceptance or denial of the abuse, their perception of risk and protective factors, knowledge about abusive episodes, childcare skills, and potential for contributing to a long-term child protection plan. In some situations it may be possible for the abuser to stay with members of the extended family, provided this does not put other children at risk for abuse. In situations where both parents deny the abuse, the abused child may be placed with relatives who believe that the child was abused. A court-ordered injunction may be obtained to prevent the abuser from entering the relative's house where the child is placed. However, this type of extended family placement may create family conflicts that are difficult to resolve in the long-term.

Evaluation of role of other involved professionals

Individual interviews with other involved professionals from health, education, social services and justice agencies may be conducted to obtain their expert views of risks and resources within the family and their potential future involvement in supporting the family, protecting the child or providing services. Interviews with other people in community-based resource settings may be conducted to obtain information relevant to the case and the child protection plan. These people may include, for example, foster parents with whom the child is temporarily based, home-support workers, leaders of mother and toddler groups, and nursery or day-care facility staff.

Children abused in care

The assessment schedule set out in Table 21.2 is appropriate for most cases of sexual abuse where children are living with their parents. It may, however, be adapted for use in cases where children allege that abuse has occurred while living in foster care or a residential childcare institution. The guidelines for interviewing the child and the abuser may be followed with little alteration. However, there are typically a great deal more non-abusing parties available as potential allies for the child in cases where children are in residential institutional care. Of these, the director of the unit and the staff member who has the best working relationship with the child are the most important to interview, and both should be encouraged to play a protective and supportive role with respect to the child. With foster care, the child's natural parents, the child's statutory social worker and the non-abusing foster parent all are potential child protectors and their capacity to support and protect the child requires assessment.

Treatment

Trauma-focused cognitive behaviour therapy (TF-CBT) is the best-validated treatment for children who have experienced CSA (Leenarts et al., 2013). Useful treating manuals explaining this approach are *Treating Trauma and Traumatic Grief in Children and Adolescents* (Cohen et al., 2006) and *Treating Sexually Abused Children and Their Non-offending Parents: A Cognitive Behavioural Approach* (Deblinger & Heflinger, 1996). TF-CBT for CSA involves concurrent treatment of abused children and their non-abusing parents, in group or individual sessions, with periodic conjoint parent–child sessions. TF-CBT typically spans 8–16 sessions. Where father–child intrafamilial sexual abuse has occurred, it is essential that offenders live separately from the victim until they have completed a treatment programme and been assessed as being at low risk for re-offending.

Psychoeducation. TF-CBT begins with psychoeducation, and psychoeducation is a consistent strand throughout the programme. As part of psychoeducation, children and parents may be given factual information on CSA. Key points to cover include the following. Adults are supposed to protect young people, not have sexual relations with them. Therefore, CSA is never the fault of the young person, even if some of the feelings that occurred during it were pleasurable. The young person is not to blame for CSA. Most CSA is perpetrated, not by strangers, but by people who know the family or family members. People who abuse children usually bribe or threaten them to make them keep it a secret. Young people usually are afraid to talk about CSA because they are frightened of what will happen and because they feel guilty for being involved in CSA. The more frequent and frightening the CSA and threats, the worse the trauma symptoms. TF-CBT is a proven effective treatment for CSA. About 2 out of 3 young people recover following treatment.

The effects of traumatic CSA experiences and the way in which TF-CBT addresses these effects may be explained as follows. Traumatic events, such as CSA, create intense anxiety, so cues that remind the child of these events and traumatic memories are avoided or suppressed. Avoidance and suppression prevent the trauma from being emotionally processed. The unprocessed trauma may lead to ongoing anxiety, anger and in some instances sexual feelings. It may also lead to flashback memories of the trauma, nightmares and sleep problems, loss of memory of the trauma, emotional numbing, or other unusual experiences such as derealization (feeling the world is unreal) or depersonalization (not feeling yourself). These post-traumatic experiences may lead to unhelpful thoughts about the self (for example, the self as bad or wrong or crazy); others (for example, others are untrustworthy); the world (for example, the world is unsafe); and the future (for example, the future is hopeless). All of these trauma-related symptoms can lead to secondary problems in relationships with friends, family and school teachers. They can also lead young people to try to solve their problems in dangerous ways. For example, they may run away from home, take drugs or harm themselves. TF-CBT is a proven effective way for helping children to recover from trauma. It helps them understand and process their traumatic CSA experiences, develop a supportive and protective relationship with their non-abusing parents, and get their life back on track. It involves supporting children in developing a coherent trauma narrative in which they gradually and in increasingly greater detail recount and write the story of their abuse. In doing so they are gradually exposed to anxiety-provoking CSA trauma-related memories until habituation occurs. Child-focused sessions involve helping the child to elaborate in increasingly greater detail their traumatic memories of the abuse. They are helped to tolerate and emotionally process the anxiety and other negative feelings associated with memories and cues that remind them of abusive experiences. Through repeated exposure to abuse-related memories by recounting, elaborating and imaginally re-experiencing traumatic events, abused children emotionally process and habituate to intense negative feelings evoked by traumatic memories. Children also learn breathing, mindfulness and relaxation skills and cognitive coping skills to help them tolerate anxiety and modify negative automatic thoughts aroused during exposure to traumatic memories. In addition, they are helped to develop assertiveness and safety skills to prevent further episodes of abuse. In TF-CBT there are opportunities to discuss victimization, sexual development and identity issues. In individual and conjoint parent–child sessions involving non-abusing parents the focus is on helping parents develop supportive and protective relationships with their children; regularize the child's routines for sleeping, school attendance and leisure activities; and develop behavioural parenting skills to set limits on aggressive or sexualized behaviour arising from the abuse. In this context, they may be helped to implement reward programmes and behavioural control programmes. They are also invited to keep daily records of particularly symptoms such as flashbacks, nightmares, or behaviour problems and these records are reviewed in treatment sessions. There are 10 components in TF-CBT:

- psychoeducation
- parenting skills
- relaxation
- affective expression and modulation
- cognitive coping and processing 1
- trauma narrative
- cognitive coping and processing 2
- in vivo mastery
- enhancing future safety

- conjoint parent–child sessions.

Parenting skills. In early sessions with parents, its helpful to empathize with the challenges of parenting a traumatized child, who may show a wide range of trauma symptoms and behavioural problems. The goal of the parenting skills component is to help parents develop ways to normalize the child's day-to-day life so the child has routines for sleeping, school attendance, socializing and managing relationships with friends and family in an age-appropriate way. Parents may be helped to develop plans and routines for their children to cover all of these issues. In communicating with their children about these plans, communication skills described in Table 4.2 in Chapter 4 may be used. Four key parenting skills are useful in implementing parenting plans: praise, selective attention, reward programmes and behaviour control programmes. Reward and behaviour control programmes are described in Tables 4.5 and 4.6 in Chapter 4. With praise, the parent makes a conscious decision to try to 'catch their child being good' and at these times to praise them for their specific actions. Praise is consistently offered for specific behaviours, immediately after the behaviour occurs, in a way that the child knows the parent really means it. With selective attention, the parent make a conscious decision not to react to children's negative behaviours (unless these are dangerous) and to ignore these. The rationale for this is that by reacting to negative behaviours, for example displays of irritability, the parent may inadvertently reinforce them. In contrast, by ignoring such behaviours and praising children for pro-social behaviour, the negative behaviours may occur less frequently.

Relaxation. To manage anxiety, irritability, anger, and sleep problems young people may be taught relaxation and mindfulness skills. Training in these skills is conducted before young people construct a trauma narrative and undergo in vivo exposure, since they require competence in these skills to be able to regulate the anxiety and negative affect induced by these tasks. Relaxation skills are discussed in Chapter 12 and described in Figure 12.3. Mindfulness skills are discussed in Chapter 16 and described in Box 16.2. Parents are also trained in using relaxation and mindfulness exercises so that they can support their children in using these anxiety management techniques.

Affective expression and modulation. To facilitate children and parents expressing and regulating intense, difficult and painful feelings they are helped to identify and label their feelings and talk about them without acting them out. When this is conducted in conjoint sessions it provides children and parents with a vocabulary for talking about emotions. Children may be invited to make a list all the feelings that they know about (e.g. love, happy, warm, excited, sad, frightened, worried, terrified, angry, hatred, edgy, guilty, jealous, envious, impatient and conflicted). They may then be invited to describe in detail the last time (or a number of occasions) when they had each feeling. Commercially available games such as Emotional Bingo, the Mad, Sad, Glad Game or the Stamp Game may be used for this purpose also. Children may be invited to pair each feeling with a colour, for example sad with blue, angry with red and so forth. They may then be invited to draw pictures of themselves in particular situations and to colour in where they had particular feeling and what these feelings were. For example, having a blue chest when they felt sad or a red head when they felt angry. With adolescents, the idea of mixed feelings or blended feelings may be introduced by asking about situations in which they had multiple feelings, for example, feeling guilty about being excited, or feeling angry about being frightened.

In sessions with parents where the child is not present, parents may be encouraged to describe and express mixed feelings that they experienced in the wake of CSA disclosure in response to the perpetrator, the child's difficult post-traumatic behaviour, and their perception of their own role in not protecting their child. Parents may have strong positive feelings of love, warmth and protection coupled with strong negative feelings of guilt, anger, anxiety and depression. Parents may be coached in how to encourage and praise their children for expressing emotions verbally rather than acting them out. They may be helped to make statements to their children like 'I understand that you are angry because I will not let you stay out late. Its good that you can tell me that your angry and put your feelings into words.'

In addition to developing skills for expressing emotions, children and parents are taught a number of skills for regulating their negative emotions. These include thought interruption, positive self-talk, safety skills, problem-solving skills and social skills. With thought interruption, children or parents may snap themselves with an elastic band worn on the wrist when they want to 'switch channels' from a negative to a positive thought or feeling. When they snap themselves, they bring to mind a vivid visual image of a safe place (for example, the beach scene in the relaxation and visualization exercise in Figure 12.3) or a specific happy memory (for example, scoring a winning goal or receiving a special Christmas present).

With positive self-talk, children or parents are coached in internally verbalizing optimistic positive coping instructions or statements about their strengths and resources, for example: 'I can handle this; I've come this far, I can keep going; I have friends and family who care about me' and so forth.

Where children have developed strong, unrealistic beliefs that they are very unsafe, and this causes unnecessary anxiety, they may helped to develop safety skills. These include recognizing the people who are available to protect them (the non-abusing parent, other trusted adults, teachers, the police, etc.), distinguishing between safe and unsafe situations, and developing a safety plan for situations they perceive as particularly unsafe. This plan may involve being assertive, saying NO to potential CSA perpetrators, escaping from unsafe situations, and telling a trusted protective adult about their fears for their safety.

When children have developed maladaptive skills for coping with challenging situations (for example, bullying others or using drugs), they may be coached in problem-solving skills as an alternative. Problem-solving skills are discussed in Chapter 4 and described in Table 4.3. For many challenging situations, useful solutions involve particular social skills, for example, introducing yourself to new friends, joining in with a group of peers already involved in an activity, turn-taking, arranging to meet friends, being assertive rather than aggressive, and apologizing. Where young people lack these or other social skills, they may be coached in these skills using modelling, role-play and feedback.

Cognitive coping and processing 1. In the earlier section on psychoeducation it was noted that CSA may lead young people to develop inaccurate negative beliefs about the self (or example, 'I'm bad, guilty or crazy'); others (for example, 'I can't trust anyone'); the world (for example, 'Nowhere is safe'); and the future (for example, 'The future is hopeless'). For CSA survivors, in many situations these negative beliefs may give rise to fleeting negative automatic thoughts in day-to-day situations, for example, 'The bus driver looks like he might molest me. I'm in danger.' These negative automatic thoughts cause negative mood states such as anxiety, anger or sadness. These thoughts and mood states may lead to problematic behaviour, for example, not getting on the bus or hitting the bus driver. In the first cognitive coping and processing component of TF-CBT, children and parents learn this CBT-based way of understanding the link between negative automatic thoughts, feelings and behaviour. They also learn how to 'catch' negative automatic thoughts and replace them with more balanced or realistic alternatives using the Challenge-Test-Reward (CTR) technique described in Chapters 4, 12 and 16. That is, they **c**hallenge these negative thoughts by asking themselves what the other possible interpretations of the situation are; test out the validity of the positive and negative interpretations of the situation by checking the evidence for each of them; and reward themselves for checking out these alternative interpretations of the situation. Both children and parents are trained to use CTR skills to modify negative mood states. Parents are trained to prompt children to use CTR skills and to praise them for using them effectively.

Trauma narrative construction. In this component of TF-CBT young people are helped to gradually and in increasingly greater detail tell and write the story of their experience of CSA. This is the central and most important component of treatment. The psychologist may begin by reading children a personal account of CSA (for example, *Please Tell* by Jessie, 1991) and then offer to help children write their own story of their experience of abuse. With young children, they may dictate the story, and much of the actual writing may be done by the psychologist. Over several sessions children describe their thoughts, feelings and behaviour in increasing detail before, during and after each CSA episode. These are written down, read and elaborated, and the story is edited and re-edited. Children are invited to imagine the events as if they were happening right now and to describe their experiences in the present tense in a vivid way. As each section of the book is completed, the child is invited to read it aloud. As further details are remembered, these are incorporated into the narrative. The narrative should include the child's recollection of the very worst aspect of the total CSA experience, their thoughts about this, and their emotional and behavioural reactions to it. With young children puppets may be used to enact the CSA events, and these may then be written down. Children's earlier training in emotional expression skills helps them to construct the trauma narrative. In elaborating their trauma narrative they are gradually exposed to increasingly anxiety-provoking CSA trauma-related memories. They use relaxation, mindfulness and cognitive coping skills to tolerate the anxiety and other negative feelings associated with recollections of CSA. Through repeated exposure they emotionally process traumatic memories and habituate to them, so that these memories no longer elicit extreme terror. Progress in this regard may be assessed by asking children to periodically give anxiety ratings on a 10-point scale. In the closing part of each trauma narrative session, the child is praised and rewarded for their courage and hard work. In facilitating the child's construction of a trauma narrative, the psychologist helps the child to see the CSA as one part of their life, a series of events that happened to them, but not the central defining feature of their whole identity. That is, the young person is helped to view themselves as a good person who has survived a bad ordeal rather than as a bad, damaged or guilty person. To facilitate this, the psychologist may ask children to reflect on how they are different now than before the CSA occurred, to consider how they have grown and to identify what they have learned. These reflections may be incorporated into the trauma narrative. When the trauma narrative is complete, the child is invited to read it to the non-abusing parent(s). The non-abusing parent is invited to empathize with the child's distress, praise their courage and declare their intention to help to keep them safe in future.

Cognitive coping and processing 2. After the construction of the trauma narrative, therapy with the child focuses on correcting negative trauma-related beliefs about the self, others, the world and the future. This may be done by identifying all inaccurate or maladaptive negative beliefs and automatic thoughts in the trauma narrative and by using the CTR methods. The child is helped to generate alternatives to these and to check out the extent to which the evidence supports the inaccurate beliefs or the more realistic alternatives.

In vivo mastery of trauma cues. When, after constructing the trauma narrative, children continue to have intense anxiety reactions to innocuous cues that remind them of CSA trauma, then in vivo desensitization to these trauma cues may be conducted. The room in which the CSA occurred is an example of such a cue. A hierarchy of increasingly anxiety provoking situations related to this cue may be developed. For example, the most anxiety-provoking situation (with a rating of 10 on a 10-point scale) may be lying on the couch in that room. The least anxiety-provoking situation (with a rating of 3 on a 10-point scale) may be standing in the doorway of the room. Between these two extremes a series of other situations may be defined by the child and sequenced in a hierarchy from the least to the most anxiety-provoking. Starting with the least anxiety-provoking, the young person may be invited to enter into the anxiety-provoking situation and remain there, using relaxation and coping skills, until their anxiety subsides to manageable levels, following the procedure for systematic desensitization described in Chapter 12. Children may be reinforced with praise or rewards when they master each item in the hierarchy. Parents and children may conduct in vivo desensitization between sessions as homework.

Enhancing future safety. To prevent further episodes of abuse children are helped to develop safety skills. These include paying attention to ‘gut feelings’ about people treating children in a way that could lead to CSA; knowing what sorts of touches are OK and not OK; saying NO or STOP when touched in a not-OK way; being assertive and stating wishes clearly; knowing the differences between scary secrets (which frighten children) and happy surprises (which make children happy); identifying safe people and places; and asking for help until someone provides the help needed.

Conjoint parent–child sessions. TF-CBT usually involves an initial conjoint psychoeducation session with the non-abusing parents and child; parallel sets of sessions for the child alone and for the non-abusing parent(s); and periodic conjoint parent–child sessions. With conjoint sessions, usually the therapist meets with the child for 15 minutes, the parent(s) for 15 minutes, and the parent(s) and child together for 30 minutes. In conjoint sessions, parents and children may learn emotional expression, anxiety management and safety skills; children may read parents their trauma narrative; and parents and children may engage in open communication about CSA and healthy sexuality facilitated by the therapist.

Closing sessions. Conjoint closing sessions focus on finding meaning in the trauma the child has experienced and relapse prevention. Children may be invited to reflect on what they have learned from the process of therapy and recovery that might help another child who experienced CSA. These reflections may help the child give their suffering meaning. They may also be invited to predict future situations in which the trauma of CSA may lead them to have painful feelings; plan ways for coping with these feelings; and permit themselves to feel this transitory pain at these times in their future life.

Case management of CSA

In planning case management of children who have survived CSA, account must be taken of whether the abuse was intrafamilial or extrafamilial; whether children are living with their parents, with relatives or in a childcare placement; the treatment plans and living arrangements of intrafamilial perpetrators; and the legal proceedings associated with the case.

In cases of extrafamilial CSA, TF-CBT as described earlier may be offered. Key concerns to address in case management are making safety plans to minimize contact between perpetrators and children and supporting children if they are to give testimony in court in the prosecution of the perpetrator.

In cases of intrafamilial CSA where a parent or step-parent was the perpetrator, and the non-abusing parent believes the child’s disclosure, supports the child, and insists that the perpetrator leaves the family home permanently, TF-CBT as described earlier may be offered.

All access between the children and abusing parent should be supervised. The ambivalent feelings about these living arrangements of the abused child, the siblings, the non-abusing parent and the perpetrator are potential issues that may need to be addressed in individual or systemic therapy involving meetings with various family subsystems.

In cases of intrafamilial CSA where a parent or step-parent was the perpetrator, and the non-abusing parent believes the child's disclosure, supports the child, and insists that the perpetrator leaves the family home temporarily until they have completed a treatment programme for sex offenders, TF-CBT as described earlier may be offered. All access between children and abusing parent should be supervised. Re-admission of the perpetrator to the household should only be permitted when certain conditions are met. First, the relevant statutory agencies (child protection services and probation services) must agree that it is safe and acceptable for the family to work towards family reunification. Second, the perpetrator must have completed a sex-offender treatment programme usually of at least a year's duration, and been evaluated at the end of the programme to be at reduced risk of re-offending (Kirsch et al., 2011). Third, the non-abusing parent must develop a strong protective relationship with the abused child and other children in the family. Fourth, in a series of couple-based sessions involving the perpetrator and non-abusing parent, the abuser must take full responsibility for betraying his partner and apologize in a credible way. The non-abusing partner must decide after these couple-based sessions if progression towards family reunification is possible. Fifth, in a series of family meetings facilitated by a therapist, the abused child, supported by the non-abusing parent, must confront the abuser with their experience of the abuse; forcefully express the anger and distress associated with abuse, the coercion and the secrecy; and demand that the abuser admit that they were fully responsible for the abuse. The abuser must openly take responsibility for the abuse and apologize in a way that is credible to the abused child and the non-abusing parent. Sixth, routines for day-to-day living must be agreed on which minimize opportunities for the perpetrator to abuse any children in the family, before the perpetrator moves back into the family home. Seventh, over an extended period, after the abuser moves back into the family home, the adjustment of the family to these new living arrangements may be monitored in regular family meetings. This process is best facilitated using a systemic therapy model (Bentovim et al., 1988; Furniss, 1991; Giaretto, 1982; Trepper & Barrett, 1989).

In cases of intrafamilial CSA where a parent or step-parent was the perpetrator, and the non-abusing parent does not believe the child's disclosure, the child may be placed in care or with relatives. TF-CBT as described earlier may be offered with the child's carers, foster parents or relatives being included as supportive adults. All access between the children and parents should be supervised. Should parents in these cases wish to be reunited with their children, the treatment and case management procedures outlined earlier for family re-unification should be followed, adapted to include non-abusing parents, who must accept full responsibility for failing to protect the abused child.

Where intrafamilial sibling abuse occurs, TF-CBT as described earlier may be offered to the abused child and the perpetrator, who is often an adolescent may be treated, following the protocol described next.

Adolescent abusers

About a third of sexual offenders are teenagers and about half of adult perpetrators commit their first sexual offences in adolescence (American Academy of Child and Adolescent Psychiatry, 1999, Barbaree & Marshall, 2006; O'Reilly & Carr, 1998; O'Reilly et al., 2014; Rich, 2011; Ryan et al., 2010). The majority of their victims are children who may reside both inside and outside the family, and the majority of adolescent sexual offenders were abused either sexually, physically or emotionally as children. Assessment should be thorough and cover the cycle of abuse in Figure 21.1. The framework for assessing children with conduct disorders, described in Chapter 10, may also be used. Treatment should be based on a contract drawn up between the offender, the treatment team, the offender's parents and the relevant statutory agency (for example, child protection services and/or juvenile justice services). A primary aim of treatment should be to protect the victim. Where possible, intrafamilial perpetrators should be placed outside the home, or be very closely supervised within the home, until the risk of re-offending has been significantly reduced. Extrafamilial perpetrators should be closely supervised and denied access to actual or potential victims.

Borduin et al. (1990) have shown that multi-systemic treatment involving the child, parents, school and other agencies is particularly effective. Family work may focus on helping parents give up denial of their child's abuse while at the same time offering support to the juvenile abuser. Work with the school may address attainment problems, supervision so that abusive episodes do not occur in school, and prevention of deviant peer-group membership. Close links with juvenile justice agencies should be maintained. Group-based cognitive behavioural relapse prevention (CBT-RP) treatment has the best evidence base for effectiveness and may be incorporated into multi-systemic family-based programmes. CBT-RP treatment programmes include the following components (Barbaree & Marshall, 2006; O'Reilly & Carr, 1998; O'Reilly et al., 2014; Rich, 2011; Ryan et al., 2010):

- confronting denial and building empathy
- tracking the cycle of abuse
- coaching in relapse prevention skills
- developing a supportive network
- developing social skills
- working through personal victimization issues
- developing a healthy sexuality

- changing deviant arousal patterns.

Confronting denial and building empathy. In the first stage of treatment the central tasks are confrontation of denial and minimization and fostering empathy in the perpetrator for the victim. However, this process should continue throughout treatment since denial and minimization may continue to operate, albeit at reduced levels, throughout the perpetrator's life. Denial is extreme and categorical whereas minimization is graded. Perpetrators may deny that any interaction occurred; the sexual nature of the act; or the fact that the act was one of abuse by insisting that the sexual interaction was non-coercive. Perpetrators may attempt to minimize their responsibility for the action; the extent of sexual abuse; or the impact of the abuse. In denying responsibility, perpetrators may blame the victim for initiating the sexual interaction by being provocative. Alternatively they may claim they were not responsible for their actions because of external stresses (such as lack of sexual outlets) or internal factors such as intoxication. With respect to the extent of the abuse, perpetrators may minimize the frequency of the abuse, the number of victims, the amount of violence or coercion used or the intrusiveness of the sexual acts. Finally perpetrators may minimize the impact of the abuse on the victim or highlight its educational features. Young abusers may identify their denial process through role-playing abusive episodes in group treatment while prompting group members to verbalize their cognitive distortions. Youngsters may also be invited to write down the justifications that they used for their abusive actions. These may be discussed in the group, and group members may be invited to confront each other's distortions. Writing an apology letter is an important part of breaking down the denial process and learning empathy skills. Whether this apology letter is sent or not depends upon the context of the abuse. With extrafamilial abuse it may be inappropriate to send the letter, while with intrafamilial abuse the apology letter may be used as a focus of a family-based apology session in which the abuser reads the apology letter to the victim, with the rest of the family as witnesses.

Tracking the cycle of abuse. In the second stage the perpetrator is helped to closely track those circumstances that have led to abuse. This includes the situational triggers, the deviant fantasies and use of pornography, the behavioural routines, the negative and positive feelings, the distorted cognitions and the decision-making processes that underpin abuse. Role-play is a useful way to track the cycle of abuse in a group setting. Figure 21.1 may be a useful initial guide to helping adolescents begin to elaborate their particular cycle of abuse.

Coaching in relapse prevention skills. When a clear understanding of the cycle of abuse has been achieved, treatment focuses on coaching perpetrators to develop strategies for identifying and avoiding high-risk situations that precipitated episodes of abuse. Group exercise where perpetrators list external situational factors and internal thoughts and feelings that act as triggers may be used. Lists of triggers can be put up on a flip chart and common features highlighted. Where such situations cannot be avoided, strategies for coping with these situations may be explored through group brainstorming or coaching in specific skills such as managing negative mood states including depression or anger; confronting one's own cognitive distortions which involve denial or minimization; and taking control of their decision-making processes that may lead to abuse.

For anger management Becker and Kaplan (1993) use the RETHINK protocol:

*R*ecognize when you feel angry
*E*mpathize with the other's viewpoint
*T*hink about the situation in a new way
*H*ear what the other person is saying
*I*nclude respect into what you say when you are angry
*N*otice how you can calm yourself through relaxation
*K*eep your attention on solving the problem.

Specific situations that elicit anger are role-played and youngsters are trained to use the RETHINK protocol to reduce their anger and avoid acting it out.

Becker and Kaplan (1993) use covert sensitization in which young perpetrators imagine negative consequences following on from a trigger situation. For example, perpetrators imagine situations where they are looking at a potential victim playing alone in a secluded place and they approach them with the intention to abuse the child and follow this by imagining themselves in jail. These risk–consequence scenarios are put on audiotape and perpetrators are required to listen to them repeatedly as homework as well as during treatment sessions.

Developing a supportive network. For treatment to be successful, the family of the perpetrator must both confront the youngster's denial and minimization but also support the teenager in his attempts to control his sexually abusive behaviour. Thus, group work for young perpetrators must occur within the context of ongoing family work. This therapy aims to help parents to give up denial and yet provide support for the young perpetrator. It is also important for the youngster to disengage from deviant peers if the abuse occurred as part of a deviant peer-group culture.

Developing social skills. Some juvenile offenders lack the skills necessary for making and maintaining heterosexual friendships. Social skills training in this area may therefore be necessary for some cases. Assertiveness training in peer-group situations and developing dating skills are key elements of this part of a treatment programme, and role-playing is the most useful training technique.

Working through personal victimization issues. Many young offenders have been abused or neglected and their abuse of others is premised on internal working models that entail the roles of victim and abuser (Rasmussen et al., 2013). Working through or processing feelings related to abusive experiences, recognizing the presence of these deviant internal working models, and developing alternative healthy models for relationships is an important treatment process. That is, models that do not entail the abuse of power and that permit the development of empathy and intimacy.

Developing a healthy sexuality. Counselling on the role of sexuality in intimate relationships is required by many young perpetrators, since they have a distorted conception of the place of sex in friendship. Becker and Kaplan (1993) use educational films on the anatomy and physiology of male and female reproductive organs, birth control, sexual hygiene and sexually transmitted diseases to supplement group discussion on the place of sex in relationships. Useful group activities include breaking into teams and competing for the longest list of reasons for having sex or engaging in a quiz on sexual myths.

Changing deviant arousal patterns. To help perpetrators alter deviant patterns of arousal Becker and Kaplan (1993) have developed verbal satiation therapy. Here the youngster is shown a series of slides (usually one in each of 8–10 30-minute sessions). The slides depict the type of victim that the perpetrator finds sexually arousing; for example, a young naked girl. The perpetrator is then asked to focus on the slide and repeat for 30 minutes a statement describing the sexual act of abuse they would most like to engage in with the person depicted on the slide. For example, 'I want her to touch my willie.' Becker and Kaplan (1993) using plethysmograph measurements of arousal have found that this procedure leads to habituation and after this treatment, sexual arousal is not elicited by the types of sexual stimuli depicted on the slides.

Legal proceedings

Two types of legal proceedings may occur in CSA cases: civil law proceedings where the focus is on obtaining a child protection order and criminal law proceedings where the concern is prosecution of the perpetrator. In both types of proceedings, clinical psychologists may be required to act as expert witnesses and the abused child may be required to testify. In civil law proceedings the psychologist's testimony and the child's testimony may be required to support a case which argues that the parents are unable to meet the child's need for safety and so the child should be placed under the care of the state. In criminal law proceedings the child's testimony and the psychologist's testimony may be required to support a case which argues that the perpetrator committed a criminal offence involving the sexual assault of the child.

The admissibility of videotaped evidence and child testimony varies from country to country. From a legal perspective there are four key questions that must be addressed by the assessment team when conducting investigative interviews with a view to using these as videotaped evidence in court (Flin & Spencer, 1995). The answers to these questions will depend upon the rules and laws governing child testimony in civil and criminal courts in the particular jurisdiction:

- Must the child give all evidence in person?
- Are children recognized as competent to give evidence?
- Are children (if they give evidence) treated in the same way as adults (or are there protective measures)?
- What weight does the court put on children’s evidence?

Each of these questions will be addressed in turn.

Must the child give all evidence in person? In certain jurisdictions video recordings are considered to be hearsay evidence when presented alone and when presented in conjunction with a child’s verbal testimony in court, they are considered to represent a violation of the *rule against narrative*. Guidelines on good practice for video-recording children’s interviews are given in the UK Memorandum on Good Practice which is based on psychological research (Davies & Westcott, 1999; HMSO, 1992; Lamb et al., 2011).

Are children recognized as competent to give evidence? People are judged by a court to be competent to give evidence if they can demonstrate that they understand the nature of the oath under which they give evidence. In some jurisdictions, certain age limits are specified. However, psychologists may present evidence, for example, the results of psychometric evaluations, to testify to children’s competence to give an intelligible account of the abuse they have suffered.

Are children (if they give evidence) treated in the same way as adults (or are measures taken to take account of their vulnerability)? Usually witnesses are required to give evidence in a formal courtroom. The use of less formal rooms and dress, a screen to separate the child from the perpetrator, a video link, or a single neutral cross-examiner are some of the special protective measures recommended for use with children in certain jurisdictions.

What weight does the court put on children’s evidence? Traditionally, in criminal law but not civil law, children’s evidence has always required corroboration, although rules governing this have now been abolished in most countries. However, some judges still act as if corroboration were required.

From a psychological perspective, as distinct from a legal perspective there is a consensus about the conditions under which children can give reliable testimony (Ceci, 2002; Ceci & Bruck, 1993).

> If the child’s disclosure was made in a non-threatening, non-suggestible atmosphere, if the disclosure was not made after repeated interviews, if the adults who had access to the child prior to his or her testimony are not motivated to distort the child’s recollections, through relentless and potent suggestions and outright coaching, and if the child’s original report remains highly consistent over a period of time, then the young child would be

> judged to be capable of providing much that is forensically relevant. The absence of any of these conditions would not in and of itself invalidate a child's testimony but it ought to raise cautions in the mind of the court.
>
> (Ceci & Bruck, 1993, p. 433)

Children may be helped to present accurate testimony in court and to reduce the anxiety caused by the experience through pre-trial preparation. Such programmes should help children develop five critical competencies (Flin & Spencer, 1995):

- recalling information accurately
- understanding questions and indicating non-comprehension
- resisting complying with leading questions
- coping with anxiety
- understanding trial procedures.

Information packs and videos such as those produced by the National Society for the Prevention of Cruelty to Children (NSPCC 1998, 2000) coupled with communication training and anxiety management training are the optimal procedures for preparing child witnesses for giving testimony in court.

Prevention

Clinical psychologists have an important role to play in supporting the implementation of primary prevention programmes for child sexual abuse (Zeuthen & Hagelskjær, 2013). In an extensive review of evaluation studies, such programmes Duane and Carr (2002) concluded that they can lead to significant gains in children's safety knowledge and skills and an increase in CSA disclosure rates. They recommended that validated prevention programmes, covering the curriculum in Table 21.4 which equip pre-adolescent children with the skills necessary for preventing CSA, should be routinely included in primary school curricula. Such programmes should be developmentally staged with different programme materials for younger and older children; be of relatively long duration spanning a school term; be taught using multi-media materials and active skills training methods; and be multi-systemic. That is, programmes should include components which target not only children but also parents, teachers and members of local health, social and law enforcement services.

Table 21.4 Core concepts in curricula of CSA school-based prevention programmes

Body ownership	• The child's body belongs to her or him and the child has a right to control access to her or his body • A distinction may be made between 'good', 'bad' and 'confusing' touches

Touch	• A child may permit a good touch and reject a bad or confusing touch from an adult or another child
Saying NO	• A child has right to say NO when approached or touched inappropriately and the skill of saying NO should be practiced
Escape	• It is important to escape from potential perpetrators, and skills for escaping must be practiced so the child will be prepared if the need to escape arises
Secrecy	• A distinction may be made between appropriate surprises (which are fun) and inappropriate secrets (which are scary) • A child should talk about any touch he or she is asked to keep a secret
Intuition	• A child should trust his or her own feelings when he or she feels something is not quite right
Support systems	• Children should identify adults that they can turn to for help when they wish to make a disclosure of abuse or attempted abuse • A child should seek help from another adult if the first adult does not listen or believe his or her disclosure
Blame	• A child is not to blame if he or she is abused or victimized
Bullying	• Bullying is unfair and wrong • Be assertive with bullies and tell trusted adults about them • Support your friends if they are bullied

Summary

CSA is a relatively common problem. Most abusers are male. About two-thirds of all victims develop psychological symptoms and for a fifth these problems remain into adulthood. Children who have been sexually abused show a range of conduct and emotional problems coupled with over-sexualized behaviour and relationship difficulties. Traumatic sexualization, stigmatization, betrayal and powerlessness are four distinct yet related dynamics that account for the wide variety of symptoms shown by children who have been sexually abused. The degree to which children develop the four traumagenic dynamics and associated behaviour problems following sexual abuse is determined by stresses associated with the abuse itself and the balance of risk and protective factors present in the child and the social context within which the abuse occurs. A distinction is made between first- and second-line suspicions of CSA. With first-line suspicions the main course of action is to convene a meeting of all involved professionals to pool information and plan further information-gathering strategies. With second-line suspicions, a thorough assessment is required and this should be preceded by preparation of a place of safety to which the child can be taken if abuse is disclosed and the non-abusing parent disbelieves the child. Factors related to the child's behaviour, features of the child's account of the sexual abuse, the child's medical conditions and the presence of contextual risk factors should be taken into account when making judgement about the validity of the child's statement. Assessment involves interviews with the child and relevant members of the family and the wider network. Case management requires the separation of the child and the abuser to prevent further abuse. Trauma-focused cognitive-behavioural therapy is the best validated treatment for CSA. It helps children process trauma and develop protective relationships with non-abusing parents and assertiveness skills to prevent further abuse. CSA primary prevention programmes, which teach children safety skills, should be a routine part of the primary school curriculum.

Exercise 21.1

Look again at Box 21.1.

1. What types of behaviour problems and traumagenic dynamics were present, for Kate, in the Henderson case and on what parts of the account do you base your professional opinion.
2. How were Finklehor's four pre-conditions for child sexual abuse met in the Henderson case?
3. Which of the family types described by Bentovim's group did the Henderson family most closely resemble?
4. How would you proceed in the management of the Henderson case?

Exercise 21.2

Look again at Box 21.2.

1. How were Finklehor's four pre-conditions for sexual abuse met in the Muldoon case and which traumagenic dynamics were present?
2. What family process led to the separation and why did the separation happen when it did it your professional opinion?
3. What types of interventions might have prevented the Muldoons from separation and why?

Further reading

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Further reading for clients

Jessie (Hewett, S.). (1991). *Please tell! A child's story about sexual abuse*. Minneapolis, MN: Hazelden.

NSPCC. (1998). *Young witness pack*. NSPCC, 42, Curtain Road, London EC2A3NH, UK. http://www.nspcc.org.uk/

NSPCC. (2000). Giving evidence – what's it really like? Video. NSPCC, 42, Curtain Road, London EC2A3NH, UK. http://www.nspcc.org.uk/

Websites

American Professional Society on the Abuse of Children (APSAC): http://www.apsac.org

Association for the Treatment of Sexual Abusers: http://www.atsa.com

International Society for the Prevention of Child Abuse and Neglect (ISPCAN): http://www.ispcan.org

The National Organisation for the Treatment of Abusers (NOTA): http://www.nota.co.uk/

Section 6

Adjustment to major life transitions

Chapter 22

Foster care

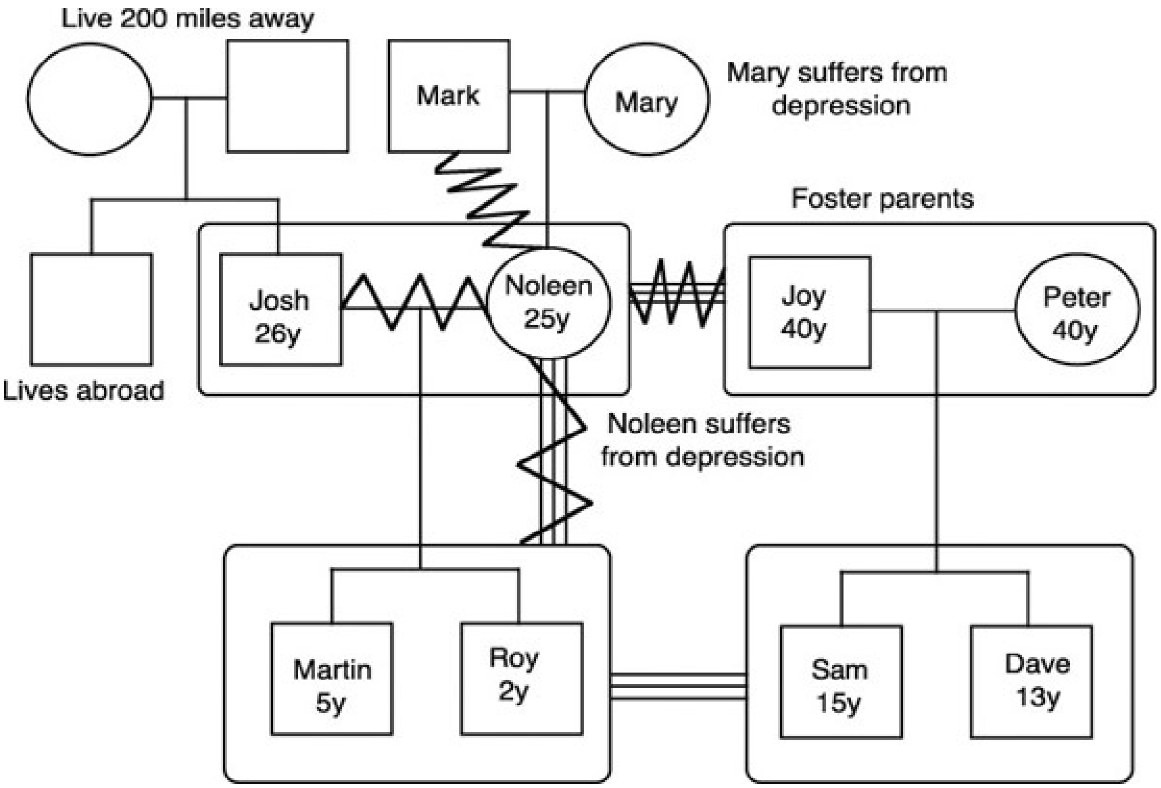
Children are considered for placement in care when their parents are unavailable or unable to met their needs for safety, care and control (Chamberlain, 2003; Kluger et al., 2000; McNeish et al., 2002; Reder & Lucey, 1995; Rushton & Minnis, 2008; Smith & Chamberlain, 2010; Steinhauer, 1991; Thoburn, 2009). An example of such a case is presented in Box 22.1. These cases fall into four categories. First, a small number of children are placed in foster care because their parents die or are unable to meet their needs due to parental physical illness or disability following an accident. Second, arrangements for temporary voluntary respite care are often made for children with intellectual or physical disabilities. This type of foster care allows parents some respite from the constant stressful demands of caring for their disabled offspring. Third, foster care placements may be made in situations where parents have difficulties meeting children's needs for safety or adequate care and nurturance. In these cases, child abuse or neglect may have occurred, or the risk of abuse or neglect may be present. Fourth, foster placements may be made where parents have difficulty meeting children's needs for control, clear limits and a structured approach to managing conduct problems. In these situations, the demands of managing the child's conduct problems effectively outweigh the parents' capacity to cope with these parenting challenges.

Box 22.1 A case of foster care: The Rogers

Martin (5 years) and Roy (2 years) and their parents Josh (26 years) and Noleen (25 years) Rogers were referred because the social worker Terry Denny, was concerned that the boys should be re-placed with foster parents Joy (40 years) and Peter (40 years). Noleen had been at her wits' end trying to manage Martin whom she describes as wilful and Roy who is a poor sleeper. Roy had also been crying incessantly in recent weeks. The situation was particularly stressful for the family since Josh changed from a day job to shift work at the local canning factory.

Martin and Roy had spent 3 months in foster care about a year prior to the current referral. The placement was made when Noleen was in an episode of depression. At that time she was unable to cope and asked that the children be taken into voluntary care.

This was arranged and Josh and Noleen visited the boys regularly while Noleen was treated for depression on an outpatient basis. It was a reasonably successful placement, although from time to time Josh and Noleen became involved in conflicts with Joy and Peter over the management of the children. A positive feature of the placement was the good relationships that Sam (15 years) and Dave (13 years), the foster parents' children, made with Martin and Roy.



Josh's parents lived over 200 miles away and his brothers lived abroad, so little immediate support was available from the extended family. Noleen, an only child, had a moderately good relationship with her mother, who also suffered from depression. However, Noleen had a highly conflictual relationship with her father. For this reason she was adamant that she would not allow her boys to stay with her parents when she felt she could not cope.

A worrying development in the case when it was referred was that Noleen had shaken Roy quite severely one night when he would not stop crying and in response Josh had hit her across the face with his hand. The couple were contrite about this and admitted it readily but were frightened that this might lead to statutory child protection proceedings.

In the routine practice of child and adolescent clinical psychology, these latter two categories of cases (those where child protection or conduct problems are the central concerns) more commonly require consultation. For this reason, these types of cases will be a central concern in this chapter. Of related interest are Chapters 10 and 19–21 which deal with conduct problems, abuse and neglect.

Within the field of foster care, distinctions are made between voluntary and statutory placement. With voluntary placements, parents request that their child be placed in care and that they retain parental rights over their children. With statutory placements, the child is placed in care usually following a court order, and responsibility for the child is transferred from the parents to a state agency such as a child protection, juvenile justice social or health services department. Distinctions are also made between family foster care and institutional foster care. In the former case, the child is cared for by parents who usually have minimal training in their own home, whereas in the latter the child is typically cared for by professionally trained childcare workers in a building owned by the childcare agency. With family foster care further distinctions are made between kinship fostering, where the foster parents are part of the child's extended family, and regular family foster care, where the child and foster parents are not biologically related. Permanent or long-term foster care is distinguished from short-term foster care. With permanent foster care there is a plan for children to remain with their foster families until they reach adulthood, whereas with short-term foster care reunification with the biological family within a given time frame is part of the overall care plan. Finally, a distinction is made between custodial foster care and treatment foster care, where foster parents are specially trained and supported to work as paraprofessional members of a foster care team to achieve specific treatment goals with children and families.

In this chapter, after considering epidemiological issues the process of attachment disruption entailed by foster care will be described. A framework for conceptualizing statutory childcare systems will then be given, and against this backdrop decision-making about foster placement will be discussed. Issues central to the transition to foster care and adjustment during foster care will be addressed before highlighting the principles of assessment in cases where foster placement may be required. Two approaches to the use of foster care as a therapeutic intervention will then be outlined. The chapter will close with a discussion of permanency planning.

Epidemiology

About 50 per 10,000 children are in out-of-home placements in the UK, and about 75 per 10,000 in the US (Rushton & Minnis, 2002). These span the pre-school, school-age and teenage developmental periods. In addition to disruption of attachment through placement in foster care, children in care have typically been exposed to a variety of other stresses and present with a wide range of health problems and adjustment difficulties (Leve et al., 2012; Oswald et al., 2010; Rushton & Minnis, 2008; Thoburn, 2009). They are typically from disadvantaged families with young parents and most are admitted to care voluntarily. It is more common for children from ethnic minorities to be admitted to care. Many children admitted to care have experienced abuse or neglect. It is therefore not surprising that many suffer from health problems including growth deficiencies, sensory problems, dental abnormalities and developmental delays. Allergies, asthma, digestive disorders and skin problems are more common among foster children. Children of parents with drug problems and children born with HIV infection are probably over-represented among children in care. Mental health difficulties and behavioural and emotional problems are far more common among children in foster care, as are learning difficulties. In teenagers admitted to care, delinquency is commonplace. Rejection and abandonment are the most consistent psychological themes that preoccupy children in care.

Attachment disruption

While placement in care may protect children from exposure to the risk of abuse or neglect, it disrupts parent–child attachment and so should only be considered when all other options have been excluded. Bowlby (1980) identified three stages of mourning following separation from an attachment figure, and this three-stage model provides a useful framework for conceptualizing children's responses to placement in care. In the protest stage the child cries, pleads, bargains and aggresses in an attempt to force the absent parent to return. In the stage of despair the child appears listless. Having given up hope of forcing a reunion with the parents, he or she continues to pine. However at this stage the child is not ready to form a new selective attachment. In the third stage of detachment, the child can reattach to a substitute parent. However, if an adequate substitute parent is unavailable during a brief window of opportunity, the child may fail to reattach and enter a state of permanent detachment. Unfortunately this sometimes happens when children enter the foster care system and experience multiple placements. Such multiple placements normally occur because foster parents are untrained to deal with behavioural problems that arise as part of the child's protest against separation from parents.

As toddlers, detached children are indiscriminately friendly. When they mature they appear cold, aloof, shallow, demanding and manipulative. The detached child shows selective inattention to stimuli in the self or others that elicit attachment-seeking behaviour. These children can neither love others nor experience being loved. Within relationships, intimacy is avoided and others are used only for personal gratification (Steinhauer, 1991). This adaptation makes it difficult for such people to form stable marriages and provide adequate care for their own children in later life. Detached children may engage in self-soothing behaviours such as thumb sucking, masturbation and rocking and idealization of their lost attachment figures. The experience of abandonment and unmet dependency needs may lead to self-blame for causing the abandonment, helplessness, hopelessness, low self-esteem, chronic depression, and self-harm. It may also lead to persistent and diffuse rage at the parent for abandoning the child. Multi-placement children typically show some or all of these behaviours and pose a profound challenge for even the most skilful foster parent.

Steinhauer (1991) has drawn the following conclusions from a review of the attachment literature relevant to foster placement. Children are particularly sensitive to separation between the ages of 6 months and 4 years. Those with a history of separations tend to interpret out-of-home placements as rejections and develop conduct problems that provoke future rejections from even the most resilient foster parents. Separation from parents has a particularly detrimental effect on children with insecure attachments to their parents and children with difficult temperaments. Children who have not formed selective attachments before 4 years of age have difficulty forming attachments to foster parents. They also have difficulty making and maintaining peer relationships in childhood and later life. The ill effects of separation from parents may be modified by making the new environment as familiar as possible. This may be achieved by, for example, placing siblings together in the same foster home and by providing the child with a supportive relationship with a foster parent as soon as possible. The transitional period between leaving the biological family and placement in a stable foster family should be as brief as possible. Temporary emergency placements in hospital or residential institutions prior to placement in a foster family should be as brief as possible. Longer separations are more detrimental than brief separations (Steinhauer, 1991).

Reviews of empirical studies have pinpointed risk factors associated with multi-placement experiences and longer placements away from home associated with extensive attachment disruption, as well as protective factors associated with placement stability and shorter placements associated with minimal attachment disruption (Berridge, 2002; Davis & Ellis-MacLeod, 1994; Fernandes & Barth, 2010; Jackson, 2002; Rushton & Minnis, 2008; Thoburn, 2009). Longer-term placements and multi-placement experiences are more common among older children from ethnic minorities with more severe behaviour problems and from more disorganized and disadvantaged families in which parents have psychological problems. Multi-placement experiences are also more common among infants admitted to care. Placement stability is associated with an agency philosophy of empowering families to care for their children; arranging frequent high quality parent–child contact while the child is in care; helping children maintain contact with important people in their social networks while in care; involving parents in placement planning; placing with relatives or people known to the family; placing in smaller and caring rather than larger and controlling residential care institutions; placing in residential care setting with strong leaderships, staff stability and training rather than in residential settings without these features; placing siblings together in the same setting; enforcing regular school attendance; and providing higher rates of payment for foster carers.

Statutory childcare systems

Statutory childcare systems are complex and involve at least six distinct elements (Steinhauer, 1991). First, there are children at risk who live in families where their needs for safety, care and control are not being met. Second, there is the court which decides whether these children's needs for safety, care and control can be adequately met within their biological families. Third, there is the childcare or child protection agency, often staffed by social workers or childcare workers, with the statutory responsibility of protecting children at risk, arranging foster care and co-ordinating support services to the families of children in care or at risk. Fourth, there is a panel of foster parents who are recruited, trained and paid by the childcare agency, or in other instances a panel of childcare staff that work in residential institutions. Fifth, there are the biological parents of the children in care or at risk who participate in programmes co-ordinated by the childcare agency which aim to help them provide a safe home environment to which their children can return after foster care. Finally, there is a panel of consultants who may be contracted to consult to the childcare agency to select, support and train agency staff and foster parents. Members of this panel may also contribute to the management of specific cases, particularly complex cases involving issues such as violence and child abuse. It is usually in this role that clinical psychologists may work with substitutive care systems.

The decision to make a foster placement

Foster placements are typically considered by parents and professionals at times of extreme stress. For example, following the birth of a second child, parents with crowding problems, financial difficulties and depression may see placement as the only option. Or social workers in an agency where a child on an at-risk register dies and a colleague is disciplined or dismissed as a result may consider foster placement as the first option in working with any multi-problem family. The tendency to view placement in care or remaining at home as the only two available options is a reflection of black-and-white approaches to problem solving which occur under stress. Often other options are available. Part of the clinical psychologist's role in consulting to such cases is to facilitate the exploration of other options following comprehensive family assessment. A general family assessment framework is presented in Chapter 4 and specific frameworks for cases of neglect and abuse are presented in Chapters 19–21. Options which represent alternatives to foster placement may include providing ongoing family support services for the parents; providing day placements for the children in nurseries or other facilities; providing boarding school placements for older children; arranging financial help or alternative housing for the family; and enlisting the aid of the extended family.

Foster placement may be considered if there is a danger of repeated severe abuse or neglect and the parents are unable to create a safe home environment, even with input from the professional network or the extended family. A set of criteria for assessing parents' responsivity to treatment has been presented in Table 19.3. Where parents do not meet two of the four criteria listed, foster care should be considered.

The benefits to the child of foster placements must outweigh the cost to the child of remaining with the biological parents. The possible benefits of staying with parents may include avoiding multiple disruptions of parent–child attachment, avoiding violation of loyalty to the natural family, avoiding being placed in an unfamiliar foster environment, maintaining positive relationships with peers, maintaining a positive and supportive educational placement, and avoidance of being blamed or scapegoated by the family for breaking up the family unit. The costs of remaining in an abusive or neglectful family situation may include impairment of physical growth in the case of neglect; psychological traumatization due to abuse; and illness, injury or death due to abuse.

In conducting the cost–benefit analysis associated with decision-making about foster care, account should be taken of the vulnerability or resilience of the child to remaining in a sub-optimal home environment or to managing the transition to foster care; the capacity for the natural family to meet the child's needs for safety, care and control; and the capacity of the foster placement to meet the child's needs. Older resilient children with easy temperaments and secure attachment to one parent who can tolerate maltreatment from another parent may fare better at home than being placed with inexperienced, poorly trained or burnt-out foster parents (Steinhauer, 1991).

The transition to foster care

The decision to place a child in care should form part of an integrated plan. The placement should have particular goals in addition to protecting the child. With long-term foster placement, the goal of placement is permanency planning. Children must detach themselves psychologically from their biological parents, mourn this loss and attach themselves to their new foster parents. Long-term foster parents require continual support to be able to cope effectively with these grief-related issues.

With short-term foster care, the foster parents must support regular contact between the child and the biological parents. This may involve building a relationship with often hostile biological parents and also managing children's grief reactions and behaviour problems that occur following regular parent–child visits.

Where children are in danger of abuse or neglect, the short-term placement should form part of a family intervention program that aims to empower the family to care safely for the child. One such approach to fostering, with its roots in structural family therapy, is described later. Where short-term placements are made because children are beyond parental control, the placement agenda may be helping the child to develop internal controls. Treatment foster care, an approach to using foster placements to help youngsters with conduct problems, will be described later in this chapter.

Between 20–50% of placements break down due to child behaviour problems and a mismatch between children's problems on the one hand and foster parents' expectations and child management skills on the other (Rushton & Minnis, 2008). Transference problems may contribute to placement breakdown. With both short and long-term foster placements, children in care experience transference towards their foster parents and so unconsciously and repeatedly re-enact the relationships that they had with their biological parents in the foster care situation, with the expectation that the foster parents will respond in the same way as their natural parents (Steinhauer, 1991). With children who have been abused, neglected or cared for in a chaotic way, this unconscious testing-out process poses a serious challenge to foster parents. Supporting foster parents during this testing-out process and helping them understand and manage it is an important part of facilitating the transition into a successful foster care placement. Failure to provide foster parents with sufficient support during this process may lead to placement breakdown, and the greater the number of placement breakdowns a child experiences, the worse the child's prognosis. Fortunately, it is often at this point that clinical psychologists are asked to consult to foster care cases and an important contribution may be made by helping the foster parents and social worker understand and manage this testing-out period. During this testing-out period, the children need warmth and acceptance on the one hand and consistent management of their conduct problems with behavioural programming on the other.

Adjustment to foster care

Adjustment to foster care follows a number of trajectories and is influenced by a variety of factors (Fernandez & Barth, 2010; Horan et al., 1993; Pecora & Maluccio, 2000; Rushton & Minnis, 2008). The course of adjustment in foster care involves deterioration first and then improvement. Problems get worse before they get better over a period of up to five years. The impact foster placement has on the child will depend upon the way in which the childcare system is organized. With co-operative childcare systems, there is good communication, realistic expectations, an agreed agenda, an agreed plan and mechanisms for troubleshooting difficulties. Conflictual systems result in placement breakdown and multi-placement cases. They lack the characteristics of co-operative systems. Specific child characteristics, characteristics of the foster placement and characteristics of the natural parents are associated with particular outcomes. Children with fewer behaviour problems and better initial adjustment in school have a better prognosis. Multi-placement children who have been in care for more than three years have a worse outcome than children on their first placement who have only spent a short time in care. The abuse of children in care is now well documented and this is associated with a poorer outcome. Placement in foster families with young parents, many children, multiple supports, a lack of juvenile court involvement, and a good relationship with the foster agency is associated with better outcome. Where the biological family is well supported, is unencumbered by financial difficulties, and where the natural parents visit their child frequently while in foster care, a better outcome occurs.

Assessment

The frameworks for assessment presented in Chapters 4 and 19–21 may be supplemented with the following agenda which is based on Reder and Lucey's (1995) approach to the assessment of parenting. They argue that the following issues be evaluated in assessing the child's need for foster care: the parents' capacity to take on a parenting role; the parents' capacity to form a positive attachment to the child; the impact of the child's personal characteristics on the parents; the impact of family relationships on the child's parenting environment; and the parents' relationships with the wider social and professional network, including the capacity to benefit from professional input. In each of these areas a number of key questions must be answered.

With respect to the parents' ability to take on the parenting role, the central questions to be addressed are:

- Can parents meet children's needs for safety or are children expected to be responsible for their own protection?
- Can parents meet children's physical needs for food, clothing, housing and hygiene?
- Can parents meet children's needs for age-appropriate emotional care?
- Can parents meet children's needs for age-appropriate supervision and control?
- Have parents insight into the impact of their own childhood experiences of parenting on their performance as parents?
- Do parents accept that they are responsible for their behaviour as parents?
- If there are parenting problems, do they acknowledge them?

The answers to these questions will to some degree depend upon parents' current and past physical and psychological health. Thus, a full evaluation of parents' psychological and physical well-being is an essential part of the assessment process.

In assessing the parent–child relationship a number of important questions deserve inquiry. These are:

- Do parents promote the development of a secure attachment between themselves and their child?
- Can parents empathize with their children and understand how hey feel?
- Can parents view the child a separate person deserving age-appropriate autonomy?
- Can parents give children's needs primacy over their own desires, by for example acknowledging that to protect their child they may have to leave their abusive spouse?

Characteristics of the child, particularly those that increase the demands that the child places on parents, should be taken into account when assessing the adequacy of the parenting environment. Important questions here are:

- Do children have difficulties in forming predictable sleeping and eating routines?
- Do children respond to environmental changes with strong negative emotions?
- Do children have disabilities, developmental delays or illnesses that increase the demands of care they place on parents?
- Have children conduct problems that make them difficult to control?
- Do children have particular characteristics that evoke negative emotional reactions from their parents by, for example, reminding them of people or events that they have found particularly stressful?

For the assessment of the impact of family circumstances on children's parenting environment, key questions to be addressed are the following:

- Are parents able to be mutually supportive?
- Are parents able to manage conflict without resort to violence?
- Are parents able to manage conflict without triangulating their child by, for example, pressuring the child to take sides with one or other parent or using the child as a go-between to carry messages from one parent to another?
- Are parents able to agree on a joint approach to meeting their children's needs?

The parents' relationships with the wider family and professional network have a bearing on their parenting capacity. These relationships may be assessed by pursuing the following inquiries:

- Have parents socially supportive relationships with members of their extended family and peer group?
- In the past have parents been able to form good working relationships with health care and social service professionals?
- Can obstacles to forming relationships that will enhance parenting capacity within the

family, peer and professional networks be clearly identified?
- Can these obstacles be overcome?

All of these questions which must be addressed in a parenting assessment may be answered using a variety of assessment techniques including individual, dyadic and family interviews; observation sessions; psychometric assessment sessions; brief trials of parental responsiveness to therapy or parent training; and reviews of available reports and correspondence from other involved professionals. Parenting assessments should invariably be conducted over a series of meetings spanning a sufficient period of time to determined the temporal consistency of parental behaviour and the consistency of the reports of involved parties.

Principles of practice

Foster care placements should be made following a comprehensive assessment and as part of an overall plan with specific goals. Where emergency interim placements are made prior to such planned placements, they should be as brief as possible.

Throughout the assessment and subsequent follow-up period, a key worker for the case should be maintained. This continuity is important, since the success of foster care rests upon the quality of the working alliances developed between parents, foster parents, case workers and children. A problem faced by social workers in managing these cases is carrying the dual role of being responsible for presenting court evidence to obtain a care order on the one hand and of co-ordinating a therapeutic plan that includes foster care and other components on the other. Parents and children may have difficulty accepting that a single person may take on these dual roles, particularly if they think in black-and-white terms. They may see the social worker as ‘the person who took our child away’ and be unable to integrate this with the a view of the social worker as ‘the person who will help up provide a safe home for our child’. There are a number of solutions to this problem. One option is to divide the functions between two workers. Whatever the solution chosen, from the child’s perspective, it is important that there be continuity in the person with which he or she has contact.

When parents are unable to meet their children’s needs for safety, care and control, rather than looking at their own shortcomings or at the *poorness of fit* between themselves and their child, usually they blame the child for all the difficulties. Exposure to blaming and criticism and lack of warmth and acceptance inevitably leads the child to present with internalizing or externalizing behaviour problems. The presence of these problems may then be used by parents as justification for their blaming and criticism. A central tenet of good practice in consulting to foster care systems is never under any circumstances to collude in this scapegoating process. It is also useful to acknowledge that the child’s natural parents and members of the extended family or the professional network who sympathize with their position will invariably create emotional pressure for everyone involved in the case to collude with this scapegoating, since this will help the parents avoid accepting responsibility for being unable to meet their children's needs.

By the same token it is also a tenet of good practice to avoid blaming or scapegoating parents for their shortcomings in meeting their children's needs. It is not unusual for involved professionals, foster parents or members of the extended family to scapegoat the parents. While it is important to acknowledge that the parents have been unable to meet their children's needs and that they may have difficulty accepting responsibility for this, it is difficult to facilitate the development of a co-operative foster care system which includes the child, the biological parents, the foster parents and the involved professionals if a focus on parents' shortcomings is over-emphasized. A useful position to adopt is acknowledging that there is a poor match between the child's needs and the parents' personal resources. Assessment should focus on specifying ways that this mismatch may be improved. Foster care placement may be construed as one aspect of a plan to improve this mismatch.

Whenever possible, voluntary foster care should be arranged rather than statutory placements, since this places less strain on the social worker's alliance with the family. It is easier for natural parents to co-operate with an overall care and treatment plan if they are not coerced by law to place their child in foster care. Wherever possible short-term care should be the arrangement of choice rather than long-term care. When other factors are equal, a kinship foster placement is preferable to a foster placement with a family that is unrelated to or unknown to the child. Unless there are extenuating circumstances, siblings should be placed in foster care together. It is also preferable that children be placed with families that share their culture, race, ethnicity, religion and values.

Ideally, a series of pre-foster placement visits should be arranged to allow the child, the biological parents and the foster parents to become familiar with each other and to form good working relationships.

A highly structured routine should be developed for parental visits, particularly when children are in short-term foster placements, and these visits should be frequent so that the child maintains and evolves a more positive relationship with the natural parents. Foster parents may be supported and coached in managing the difficult behaviour which typically follows the return from these visits. Where foster parents oppose frequent visits and argue that these disturb the child, the critical point to make is that continued contact with the natural parents is the single factor that makes most difference to long-term adjustment following a short-term foster placement. Therefore, the central role of the foster parents is in developing an alliance with the biological parents and working co-operatively to contain the difficult behaviour the child shows around these visits.

A supportive forum within which foster parents may meet with other foster parents should be provided. Some portion of the time may be devoted to task-centred training in child management skills and communication skills for working with biological parents. However, it is valuable to set aside some time for foster parents to reflect on the personal issues (or countertransference reactions) that the foster children evoke in them (through their transferentially based behaviour) (Carr, 1997). Children who have been physically abused or exposed to violence may alternately evoke protective and violent sentiments in foster parents. Out of sympathy parents may be initially moved to nurture them, but later they may become punitive when they experience the foster child's continual attempts to unconsciously provoke similar treatment from them as they received from their abusive parents. Children who have been sexually abused evoke sexual tension in foster parents through their over-sexualized behaviour. Marital tensions may emerge in response to children who have been exposed to chronic parental relationship distress and triangulation in their biological families. These children may consciously or unconsciously play one foster parent off against the other just as their biological parents involved them in triangulation. This counter transferential material requires acknowledgement. Unless such acknowledgement occurs, productive management of the child in foster care may become problematic and rifts may occur in the working relationship between the foster parents and the biological parents.

Maps of two extreme patterns of foster care system organization are presented in Figures 22.1 and 22.2. Figure 22.1 is a co-operative system and the optimal foster-care arrangement. Within this system the biological and foster parents have a strong working alliance with each other. They are supported by the statutory social worker who has a good working alliance with them; and all three adult subsystems have strong positive relationships with the child. Figure 22.2 represents a common pattern for conflictual foster care systems. Within this system, there is conflict between the biological and foster parent subsystems. These two groups of parents have difficulty working co-operatively to provide a co-ordinated parenting environment for the child. Furthermore, within each of the couples (the foster parent couple and the biological parent couple) conflict is present. The tension between these two factions is exacerbated by the difficulty the statutory social worker has in remaining impartial. She finds herself working co-operatively with the foster family but unable to develop a co-operative relationship with the biological parents. Within this conflictual system, the child finds herself having ambivalent feelings and intense conflictual relationships with both her natural parents and her foster parents. The co-operative and conflictual systems diagrammed in Figures 22.1 and 22.2 represent extreme positions, and most fostering systems probably fall somewhere between the two.

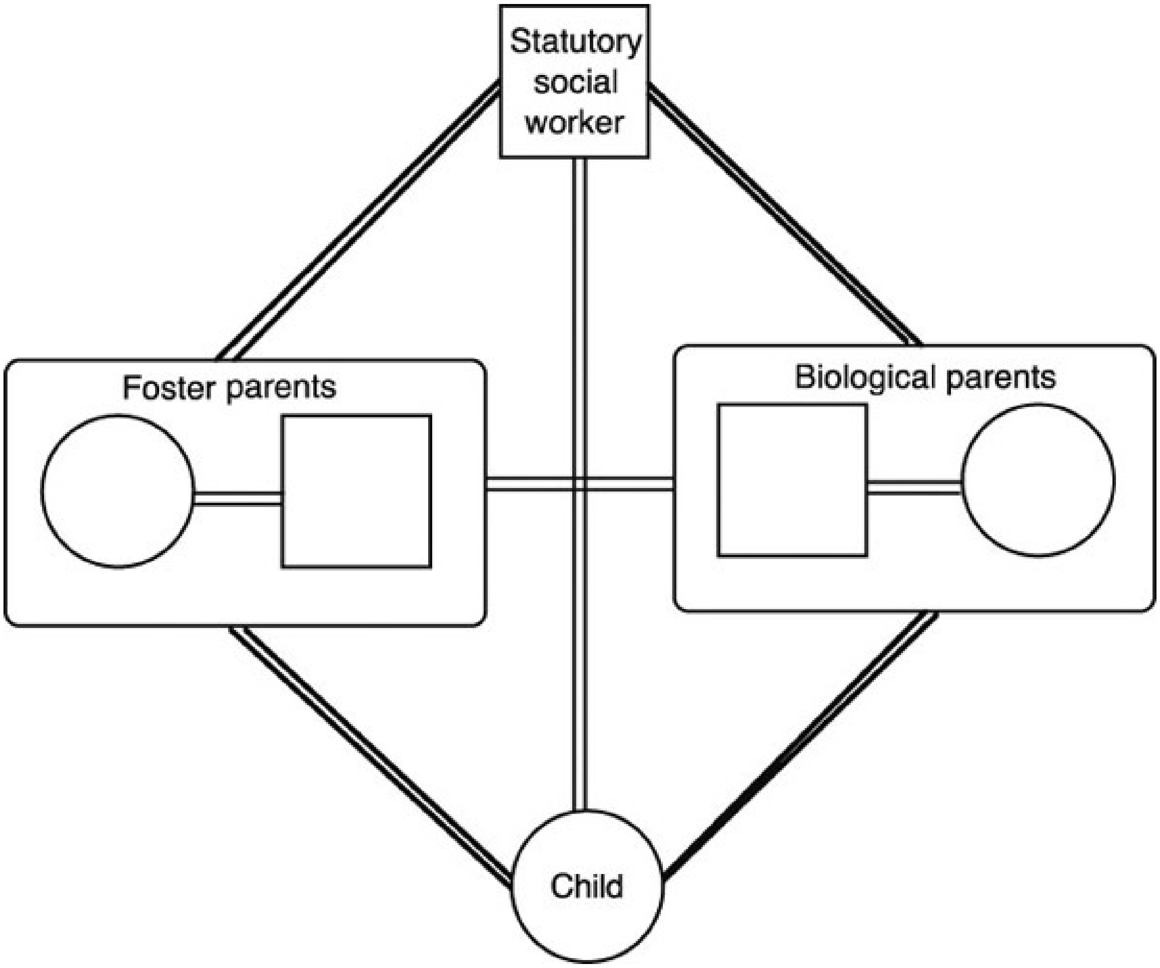


Figure 22.1 A co-operative foster care system

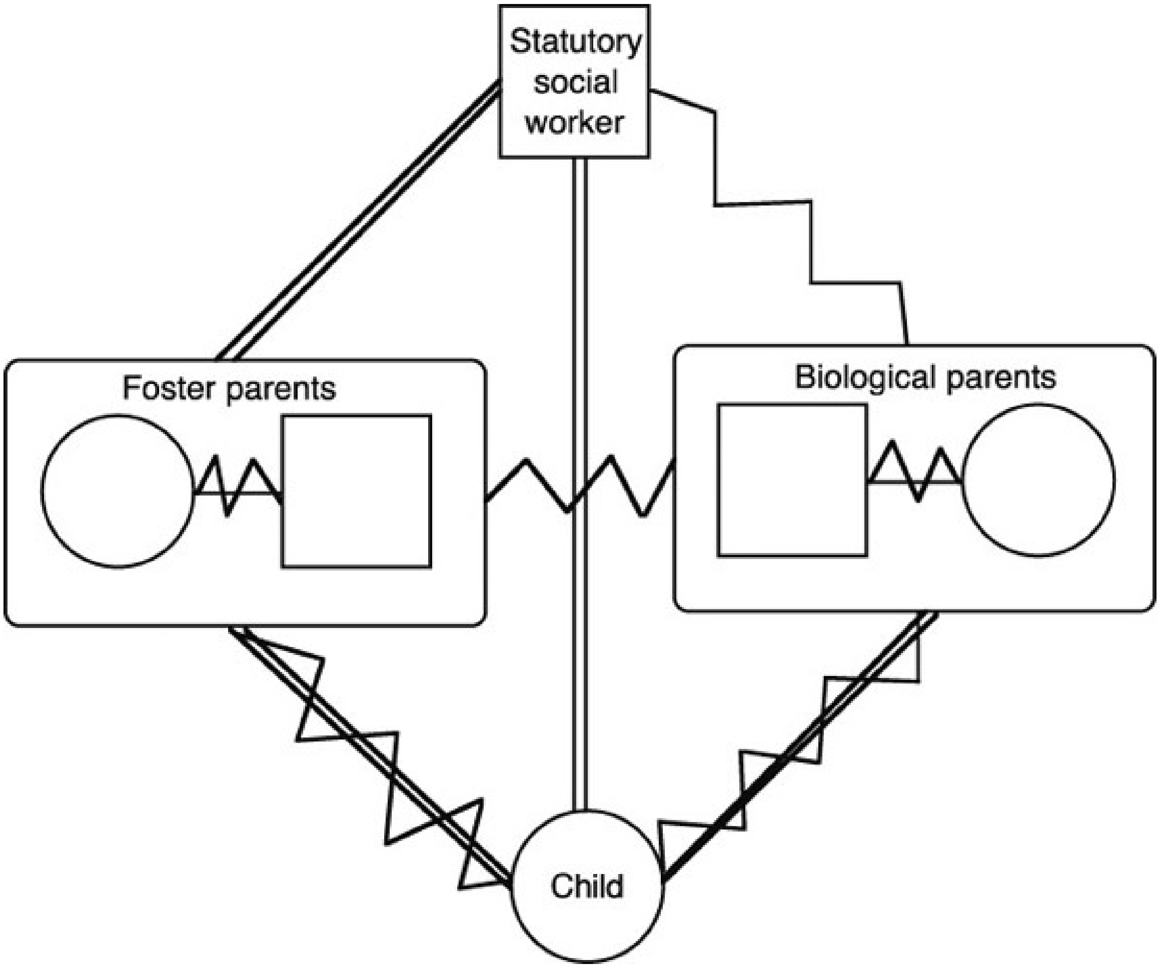


Figure 22.2 A conflictual foster care system

The role of the clinical psychologist in consulting to conflictual foster care systems is to help the adult parties (social worker, foster parents and biological parents) acknowledge the child's need for a united approach to the provision of care, and help the natural and foster parents and to negotiate such a plan. For the management of behaviour problems, a shared understanding of behavioural programmes may be developed within joint meetings involving both the biological and the foster parents. Alongside this task-focused agenda there is a role in acknowledging the potential stress and grief associated with the fostering process.

For children, birth parents and foster parents, the transitions associated with foster care are stressful and may evoke a deep sense of grief. These transitions include the move from the natural family to the foster family, and in the case of short-term foster care, back again to the natural family. For the child there is potentially the sense of being rejected at both transition points. For parents there is the loss of the child and the loss of self-esteem associated with admitting that one is unable to care for one's child. For the foster parents, the motivation to care for foster children is often some complex mixture of altruism and a desire for appreciation from the fostered child. Such appreciation is rarely offered by the child in the short term. Indeed, aggressive and difficult behaviour devoid of gratitude is the norm among children in foster care. Facilitating the ventilation of this grief is an important aspect of the role of the psychologist consulting to conflictual foster-care systems, since it is usually these unprocessed grief-related emotions that prevent co-operative problem solving in conflictual foster care systems.

The ecological approach to foster care developed by Patricia Minuchin (1995) and Chamberlain's (2003) treatment foster care offer ways of framing the foster care process that privilege the productive potential of foster placements. That is, they allow birth parents, foster parents and children to construe foster care as an opportunity to work co-operatively to solve problems rather than as a sign that a child is intrinsically bad or sick; that parents are inadequate, irremediable failures; and that foster parents are intrinsically better and different from natural parents. What follows is a brief account of these two exemplary approaches to foster care.

An ecological approach to foster care

Minuchin (1995) argued that an ecological approach to practice in the area of foster care should address the system that contains the biological and the foster families, the child and the involved professionals. The thrust of the work should aim to create an extended kinship system in which members of the biological family and foster family are united by their mutual involvement in care for children, and this is facilitated by the social worker or foster care staff member. Within this approach, the foster care parents and social work staff work as co-operative members of a team, with the social worker taking responsibility for facilitating contact and co-operation between the foster parents and biological parents and the foster parents working as paraprofessionals in both caring for the children and empowering the biological parents. The approach has been used with both regular foster parents and with kinship fostering, where the foster parents are biologically related to the child.

The approach is guided by the following principles. First, attempts should be made to symbolically preserve the integrity of the child's biological family by, for example, arranging regular contact between the child and the biological parents. If this symbolic unity of the family can be maintained throughout the placement, then it is more likely that the child may eventually be reunited with the biological family. Second, an attempt should be made throughout the consultation process to empower the biological parents to become more resourceful and capable of providing an adequate parenting environment for their child. They should be involved in decision-making, given responsibility and respected rather than blamed and instructed. Third, attempts should be made to involve the extended family as a resource in the process of reuniting the child with the family. Foster parents may be a useful bridge to the extended family and may be able to contact them in an informal and non-threatening way. Fourth, an awareness of the impact of the transitions, the stress they entail, and the resultant need to provide support to family members to manage this stress should be maintained throughout the consultation process. For children, the transition to living in a foster family environment and later to the return home may lead to emotional and behavioural problems and both foster and biological parents may require considerable support and training to be empowered to manage these problems. Fifth, the developmental stage of the child and the lifecycle stages of the biological and foster families should be considered when consulting to foster care systems. For example, separation and reunion with the biological family may be more difficult for a pre-school child than for an adolescent. Managing the adjustment reactions of children may be easier for foster parents who have reared three children who are now in their teens than for a young couple whose first child is in care.

Foster parents may be trained to use four key sets of skills in their relationships with biological parents and their participation in the fostering system. These skills, which have been developed within the field of family therapy, are joining, mapping, searching for strengths and working with complementarity. Joining involves conveying interest, respect and acceptance by listening and accommodating to the viewpoint of the other person without forcefully imposing one's own viewpoint on the other. Mapping is the skill required for drawing genograms of both biological and foster families and indicating on these the lifecycle stages, strengths and stresses faced by family members. Searching for strengths requires the foster parents to acknowledge the fact that the biological parents are experts on the child's developmental history and characteristics and on particular child management practices that were effective in the past. Searching for strengths is the skill that foster parents must develop to allow them to avoid blaming the biological parents and defining the biological parents as wholly inadequate. In working with complementarity, foster parents are coached in recognizing that in any interaction with the biological parents, the more the foster parents do in the way of competent parenting the less space there is for the biological parents to demonstrate parenting competence. With this awareness, foster parents may gradually and consciously hold back from parenting the child in certain situations, thus opening up space within which the biological parents can exercise their emerging parenting competencies.

Treatment foster care

Many youngsters who present with extreme externalizing or internalizing behavioural problems are unsuitable for routine foster care. Their extreme behavioural difficulties pose too great a challenge for untrained foster parents to manage. Treatment foster care is a specialized form of foster care in which foster parents are trained to manage child behaviour problems and use psychological treatment principles to help youngsters normalize deviant behaviour (Chamberlain, 1994, 2003; Chamberlin & Mihalic, 1998; Smith & Chamberlain, 2010; Turner & Macdonald, 2011).

Treatment foster care gives youngsters aged 11–18 years opportunities to live successfully in the community by providing them with intensive supervision, support and skills training and separation from deviant peers in a programme where foster care by well-trained foster parents is a key element. In addition, treatment foster care concurrently offers teenagers' birth parents intensive parenting training to prepare them to reintegrate their deviant child back into the family. Treatment foster care placements typically span 6–9 months. These programmes are offered by teams which includes a range of professional with clearly defined roles:

(1) Service directors manage the overall service, accepting referrals, allocating cases to specific programme teams and supporting programme supervisors in weekly meetings and other staff as required.

(2) Foster family recruiters and trainers usually are experienced foster parents who have been trained in the principles and practices of behavioural parent training and social learning theory and have used these successfully with a number of cases. They work with the director to recruit and train new foster parents in behavioural parenting skills and also in the overall approach to working with staff, referred youngsters and their families in the treatment foster care system.

(3) Programme supervisors, usually master's level therapists, carry a case load of about 10 and co-ordinate all work for these 10 cases. This includes daily telephone contact with all 10 foster families to complete the Parent Daily Report system (Chamberlain & Reid, 1987) and weekly meetings with all foster families and other involved team members, as well as frequent liaison with youngsters' probation officers, schools and other involved community agencies.

(4) Family therapists work with referred youngsters' biological families in weekly clinic-based sessions and regular home visits. Family therapy involves alliance building with the parents; coaching parents in behavioural parenting skills for managing all of their children, not just the referred child; and teaching life skills for reducing family disorganization. Gradually over the course of the programme, as parenting skills improve, increasingly longer contacts between biological parents and their referred children are scheduled. Initial contacts are brief clinic-based supervised meetings. Later contacts are longer and occur in the biological parent's home.

(5) Individual therapists have weekly sessions with referred youngsters. These sessions provide youngsters with support and advocacy as well as training social problem-solving and anger management skills, and an opportunity to address educational and vocational issues.

(6) Behaviour support specialists have twice-weekly contact with referred youngsters in community settings such as restaurants, libraries and sports facilities. In these 'real-

life' settings they support and coach the youngster in developing life skills and provide a bridge between clinical and foster home–based therapy and life out in the community.

(7) Consulting psychiatrists link closely with programme supervisors and monitor and manage medication for symptoms of DSM diagnoses for youngsters with conditions such as ADHD or major depression.

The success of treatment foster care programmes depends upon careful planning and the development of a good infrastructure. Recruitment of foster parents into treatment foster programmes is a major challenge. The winter and spring are the best months for recruitment and a planned and co-ordinated campaign spanning a designated time period of at least a week using multiple media such as TV, radio, newspapers, billboards and recruitment. It is better to stress the professional challenge and opportunities for personal and professional development associated with being a professional foster parent than to appeal to people's sympathy for disadvantaged children. This maybe done by stressing the need for commitment and problem-solving skills when faced with extreme externalizing behaviour problems. Reference to case vignettes may be made in advertisements or radio broadcasts. Foster parents who join treatment foster programmes with a sympathy motive often drop out when faced with the challenges of applying behavioural programmes to modify extreme internalizing and externalizing behaviour problems. A structure for managing ongoing inquiries from potential foster parents and for following up should be put in place along with levels of remuneration equal to those that would be provided by a second part-time income. The principal criteria for selection are couples' parenting skills; the character and reputation of the couple; and the suitability of the couple's physical residence.

Placement should be based on an assessment of children's needs, the ability of foster families to meet these, and the acceptability of fostering arrangements to children, foster parents and birth parents. A thorough assessment of the child's needs and the family's resourcefulness as a treatment foster placement require assessment. A series of pre-placement visits to examine the fit between the child and the foster parents is essential and this should involve at least one overnight stay.

To prevent burnout, treatment foster parents require ongoing training and support. Core skills taught in a 20-hour pre-placement module include analysing antecedents and consequences of problem behaviours; agreeing on house rules with young people; systematically using positive reinforcement to increase the rate of appropriate behaviour; rarely using punishment to control bad behaviour; nurturing and accepting the child; giving age-appropriate responsibilities; and modelling appropriate behaviour. Treatment foster parents should attend up to 20 hours of ongoing training per annum in group settings and regular monthly consultations about children in their care. Outstanding treatment foster care parents may be recruited onto the training team.

Programme supervisors carry small case loads of no more than 10 to permit intensive contact. Staff are provided with regular supervision which is focused on problem solving. Twenty-four hour, on-call emergency back up is provided for crisis management.

Young people placed in treatment foster care are those who traditionally would have been placed in institutional residential care or inpatient psychiatric care. Treatment foster care offers three main advantages over institutional residential treatment (Meadowcroft & Trout, 1990). Treatment foster care offers children a stable and relatively normal (rather than institutional) residence and reference group. In contrast with an institutional placement, the negative influence of deviant peers is absent and the routines are those of family life rather than institutional life. Second, within treatment foster care the foster parents alone implement behavioural programmes and so offer far more consistency than may be possible than in an institutional setting, where a variety of staff may be involved in implementing treatment programmes. Third, treatment foster parents develop strong and lasting links with young people's birth parents and facilitate transfer of routines used in treatment foster care homes to the child's birth parents' home. Concurrently with treatment foster care, family therapy is offered to adolescents and parents to help them prepare for family reunification.

Evaluations of treatment foster care show that it is more effective than residential group home treatment (Turner & Macdonald, 2011). It leads to lower rates of offending and incarceration. Programme effectiveness is mediated by the improvements in birth parents' child management skills and the reduction in contact with deviant peers. Costs of treatment foster care are one-third less than treatment in a residential group setting.

Permanency planning

Where parents are unwilling or unable to co-operate with a treatment plan that includes short-term foster placement and eventual return of the child to their care, other options must be included in the long-term permanency plan. These include adoption and long-term fostering. A number of factors have consistently been found to lead to a poor outcome for adopted children. These are severe deprivation in the first 2 years of life; multi-placement experiences; conduct disorder prior to placement; removal from a well-established long-term foster family situation; removal from a situation where there was a well-established relationship with a birth parent or sibling; and entrenched behaviour patterns that are at variance with the adoptive parents' expectations (Steinhauer, 1991). In light of these findings, adoption may be the option of choice if the child is under 4 years of age and free to form a primary attachment with the adoptive parents; if the child is over 4 and the adoptive parents can accept that the child may take a long time to form a primary attachment to them; and if the child and the adoptive family can survive the period of testing out that will inevitably happen with an older child. A full discussion of adoption is beyond the score of this chapter (Javier et al., 2006).

Planned permanent foster care may be the permanent arrangement of choice for the child who has formed a strong attachment to a foster family; for the older child with conduct problems that can be accommodated within a foster family; and for a child who remains attached to birth parents and who has established a visiting routine that can be accommodated by the foster family.

Where children's lives have been disrupted through multiple placements and they enter an adoptive home or long-term foster placement, life-story book work may help them achieve some sense of autobiographical coherence which in turn may help them adjust to their permanent placement. Life-story book work involves helping the child to construct a biographical account using words, photographs and pictures which makes sense of and sequences the events of their lives (Ryan & Walker, 2007).

Summary

Children are considered for placement in care when their parents are unavailable or unable to met their needs for safety, care and control due to illness, death, family disorganization or parenting skills deficits. While placement in foster care may protect children from exposure to the risk of abuse or neglect, it disrupts parent–child attachment and so should only be considered when all other options have been excluded. In conducting the cost–benefit analysis associated with decision-making about foster care, account should be taken of the vulnerability or resilience of the child to remaining in a sub-optimal home environment or to managing the transition to foster care; the capacity for the natural family to meet the child's needs for safety, care and control; and the capacity of the foster placement to meet the child's needs. The decision to place a child in care should form part of an integrated plan, so the placement will have particular goals in addition to protecting the child. With long-term foster placement, the goal of placement is permanency planning whereas with short-term foster care, the goal is to empower the biological parents to improve the parenting environment they provide for their child and for the child to alter their difficult behavioural patterns so he or she can return home. The ecological approach to foster care and treatment foster care are two specific approaches to short-term fostering that have been found to be particularly effective in facilitating an improvement in the fit between the child's needs and the parents' capacity to meet them. Placement breakdown is common and may be due to child behaviour problems and a mismatch between children's problems on the one hand and foster parents' expectations and child management skills on the other. Placement breakdown is more common among multi-placement children who have been in care for more than three years and who have many behaviour problems. Placement in foster families with young parents, multiple supports and a good relationship with the biological family and the foster agency is associated with better outcome. In evaluating the child's need for foster care, the parents' capacity to take on a parenting role; parent–child attachment; the impact of the child's personal characteristics on the parent; the impact of family relationships on the child's parenting environment; and the parents' relationships with the wider social and professional network including the capacity to benefit from professional input all require assessment. Throughout the assessment and subsequent follow-up period, a key worker for the case should be maintained. Regular structured schedules of visits for the biological parents and professional support for both biological and foster families should be provided. The role of the clinical psychologist consulting to conflictual foster care systems is to help the adult parties (social worker, foster parents and biological parents) acknowledge the child's need for a united approach to the provision of care and contract with both natural and foster parents and to negotiate such a plan. Alongside this task-focused agenda, there is a role in acknowledging the potential stress and grief associated with the fostering process.

Exercise 22.1

Ricky, a 6 year old boy and his mother, Bev, aged 24, are referred to you for comprehensive family assessment by the social worker, Gail, who needs to make a decision about foster placement in this case.

Ricky is Bev's only child. He is described by Gail as being completely out of control. On three occasions he has been found wandering around town at night looking for his father, Nobby (aged 30), who lives nearby. On each of these occasions he climbed out his bedroom window, unknown to Bev. It is suspected that Bev may have a drug problem and may on these occasions have been unaware of her son's exit from the house, her having taken some drugs.

Ricky attends junior infants in the local primary school and prior to that attended playschool. In both contexts, it was noted that he has a language delay and severe behaviour problems. Ricky was a low-birth-weight baby and is currently small for his age (below the third percentile for height and weight).

Ricky and his mother have an intense relationship and have rarely been apart over the past 6 years. They vacillate between clinging to each other like two lost children and then at other times they do not speak to each other after major rows. Bev has smacked Ricky hard from time to time in fits of temper but afterwards has been remorseful.

Bev and Nobby never lived together. Ricky was conceived during a casual encounter. Nobby visits Ricky and takes him on weekend outings erratically. He also provides occasional financial support, which is badly needed by Bev who lives on welfare payments.

Bev's mother, Martha, lives nearby and has offered to foster Ricky on two occasions but

Bev has objected to this. Bev and Martha have a highly conflictual relationship, and Martha may have physically abused Bev when she was a child.

- Draw a genogram of the case.
- What factors suggest that Bev is providing an adequate parenting environment for Ricky?
- What factors suggest that Bev is not meeting Ricky's needs?
- Draw up a schedule of assessment meetings to evaluate this case so as to answer these questions. Indicate who you would invite to each meeting and the areas you would cover.

Exercise 22.2

A year following your assessment, Ricky's case is re-referred to you. He is in voluntary foster care with Kate and Larry (who have a 14 year old daughter, Kelly) and visits his mother for 2 days every weekend. You advised that Ricky would benefit from short-term foster care, during which time the foster parents would use an intensive behavioural programme to help Ricky develop pro-social behaviour, particularly how to control his temper and follow rules at home and at school. The programme included the use of reward systems and time-out. You also advised that Bev be trained in how to use this behavioural programme to manage Ricky when he visits her for weekends.

The case is re-referred to you because Kate and Larry want the visits to Bev to be made less frequent. They find that the visits disrupt their family life and that Ricky is always more aggressive and defiant when he returns from visits with Bev on Sunday night. They believe that Bev is not implementing the behavioural programme as advised. Bev has asked Gail, the social worker, if she can take Ricky out of care because she feels attacked and undermined by Kate and Larry. Gail believes that Ricky has improved dramatically over the past year. He is doing better in school and his behaviour is dramatically improved. His Child Behaviour Checklist scores are all within the normal range. Gail thinks that Ricky needs to spend at least another six months in care for these changes to be consolidated and has referred the case to you to see if you can facilitate this.

- Draw a genogram of the case indicating alliances and conflictual relationships.
- What would your consultation goals be in this case?
- List a schedule of meetings you would hold to achieve these goals.
- Role-play one of these meetings with members of your training group.
- For the person playing the role of the psychologist, note what aims you achieved in the role-play meeting.

- For the people playing family members (or the social worker), describe the things that the psychologist did to that helped you to feel like your interests were being served by the meeting.

Further reading

Chamberlain, P. (1994). *Family connections: A treatment foster care model for adolescents with delinquency.* Eugene, OR: Northwest Media.

Chamberlain, P. (2003). *Treating chronic juvenile offenders: Advances made through the Oregon multidimensional treatment foster care model.* Washington, DC: American Psychological Association.

Ryan, T., & Walker, R. (2007). *Life story work* (3rd ed.). London: British Association of Adoption and Fostering.

Steinhauer, P. (1991). *The least detrimental alternative. A systematic guide to case planning and decision making for children in care.* Toronto: University of Toronto Press.

Thoburn, J. (1994). *Child placement: Principles and practice* (2nd ed.). Aldershot: Arena.

Further reading for clients

Alper, J. (2002). *Billy says – It's not your fault; You should be taken care of; Foster carers can help; What you think matters; Waiting can be hard; Living as a new family takes practice.* London: British Association for Adoption and Fostering.

Websites

British Association for Adoption and Fostering: http://www.baaf.org.uk/

International Foster Care Organization: http://www.ifco.info/ (contains links to many national fostering organizations)

Treatment Foster Care Consultants: http://www.mtfc.com/

Chapter 23

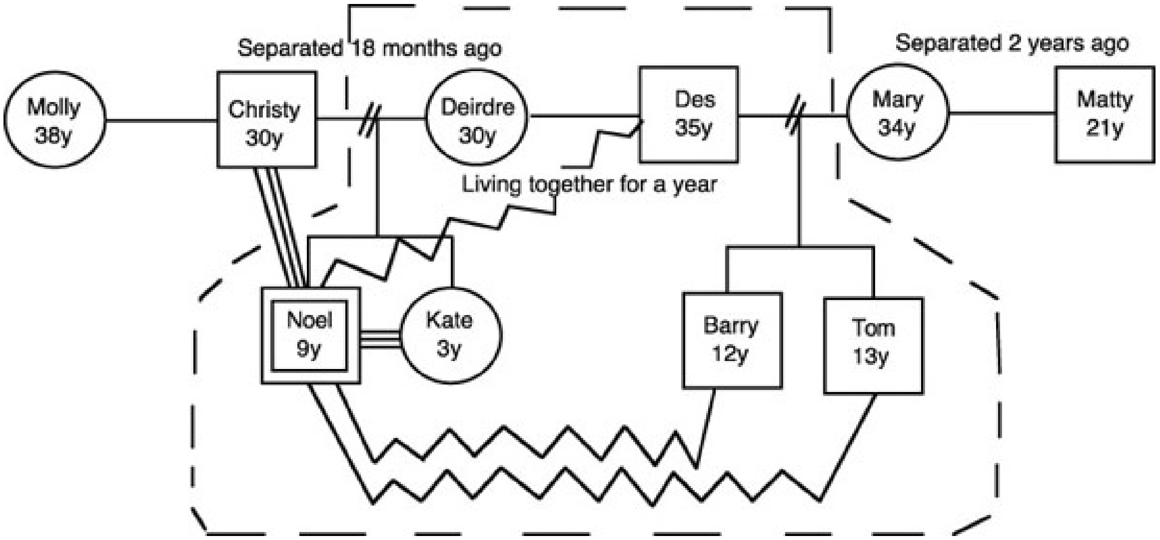
Separation and divorce

Children and families involved in separation or divorce may be referred for psychological consultation when help is required with the management of separation-related adjustment difficulties, where expert advice on child custody arrangements following separation is needed, or for mediation. An example of a case referred for post-separation adjustment problems is presented in Box 23.1. In this chapter guidelines for dealing with these types of referrals and custody evaluations will be described following a cursory account of some of the more clinically relevant findings concerning the psychology of family separation. First, relevant epidemiological issues will be discussed. Factors which contribute to divorce are then outlined. This is followed by a discussion of the demographic correlates of divorce and the impact of divorce on parental well-being. Factors that mediate parental adjustment to divorce are then considered and the immediate impact of divorce on parenting is outlined. The short-, medium-, and long-term effects of divorce on children and the important personal and contextual factors that mediate these effects are then described. A developmental model of family transformation following separation and re-marriage is then given. A discussion of the characteristics of step-families and children's adjustment following re-marriage is outlined before guidelines for assessment and treatment of children's post-divorce adjustment difficulties are presented. After considering the central features of child custody evaluations, the chapter closes with a brief discussion of mediation.

Box 23.1 A case example of adjustment problems following separation

Referral. Noel was referred because of conduct problems. Over the preceding year since he, his mother, Deirdre, and sister, Kate, moved in with Des and his two sons (Barry and Tom), the conduct problems had become worse. He had stolen and destroyed a number of toys belonging to Barry and Tom. He had scratched Des's car with a Stanley knife and recently exploded fireworks in his dark room destroying about £500 worth of equipment. It was also suspected that he had stolen up to £100 over the preceding year in small amounts from Des's wallet. He usually denied his misdeeds. At the time of referral, Deirdre and Des were considering moving into separate houses because of the strain that

Noel's conduct problems were putting on their relationship. On the CBCL completed by Dierdre, Noel's internalizing and externalizing scores were in the clinical range. On the CBCL completed by Christy, his father, and the school, his scores were within the normal range.



Family background. Deirdre and Christy had separated about 18 months prior to the referral after Deirdre discovered that Christy was having an affair with Molly, an older single woman whom he had met in the course of his work as an estate agent. The separation had occurred suddenly without a long period of overt conflict. Noel and Kate (the baby) visited Christy's house every second weekend and occasionally during the week. These visits were uneventful. Noel liked Molly and idolized his father. Des and Mary had separated under very similar circumstances, but in Des's case his wife Mary openly declared that she was leaving the marriage to live with a college student, Matty, whom she had met at night school. Des ran his business from home and, for various reasons including this, an arrangement was reached where the boys spent 3–4 days with Des and 3–4 days with Mary each week.

Within both families, the development of all four children had been broadly within normal limits. Barry and Tom were in secondary school and were doing well at their studies. Both shared an interest in photography with their father. Both tolerated Noel and only occasionally became involved in open conflict with him, but they doted on Kate. They also both liked Deirdre. Barry and Tom got on well with their mother, Mary, and paid little attention to Matty. He spent little time with them. Both co-parental couples (Deirdre and Christy and Des and Mary) contained their anger and disappointment with their ex-partners and did not let it greatly interfere in the childcare arrangements to any great degree. However, there were marked differences in parenting style.

Deirdre, Des and Mary were all fairly consistent in their insistence on clear daily routines and clear sanctions for misbehaviour. Matty played little part in parenting.

Christie, on the other hand, took a more chaotic approach. Most of the time he was very lax and only occasionally reprimanded or sanctioned Noel for rule-breaking. However, when he did so, he usually became extremely angry, imposed a severe penalty, and later in a fit of remorse brought Noel for a treat. Usually Molly went along with whatever he thought best and took a fairly lax approach with Noel. In the instances where Barry's, Tom's and Des's belongings were damaged or stolen by Noel, Christie took the view that it was down to Des and Deirdre to manage these misdemeanours which he saw as minor and blown out of all proportion. He did not think it appropriate to use the limited access time he had with his son to engage in punitive interactions.

In individual interviews Noel expressed his admiration for his father and his anger at Des, Barry and Tom, whom he felt ganged up on him and didn't want him in their house. He denied all misdemeanours except the fireworks incident which he claimed was an accident. He said that he felt as if he had done something to cause his parents' separation and wanted them to reunite. If they did not he feared that he would be left with nowhere to turn because he did not fit into his mother's household and knew that his father's business commitments prevented him from living with him.

Formulation. Noel's conduct problems in this case were precipitated by parental separation and maintained by the lack of co-parental consistent management on the one hand and a lack of co-parental support on the other.

Treatment. Intervention in this case involved working with Dierdre, Christy and Noel, initially to increase co-parental support for Noel. In these sessions, both parents jointly explained to Noel that the separation arose from marital dissatisfaction and not problems in the parent–child relationship. They then made separate commitments to Noel for weekly episodes of special time. In later sessions a consistent set of house rules for both houses were agreed on along with a reward programme and sanctions for rule-breaking that applied to both houses. In the final set of sessions Des and Dierdre and the boys attended. Noel admitted to some of the misdemeanours and apologized. Des and the boys accepted the apology and said they understood that Noel felt like the odd man out and they wanted to change this. Tension in the house decreased as did Noel's conduct problems.

Epidemiology

Divorce is no longer considered to be an aberration in the normal family lifecycle but a normative transition for a substantial minority of families (Ahrons, 2011; Amato, 2010; Fine & Harvey, 2006; Greene et al., 2012; Haskey, 1999). In industrialized countries between a third and a half of marriages end in divorce. Most divorces happen in first 10 years of marriage.

About half of divorces involve children. In 80–90% of cases, the divorce culminates in the child living with the mother. About three-quarters of divorced men and women co-habit or remarry, although slightly more men remarry than women. A proportion of these co-habiting relationships are relatively transient. Thus, the majority of children of divorced parents experience transient or stable step-family situations, with the stresses and challenges that these sorts of family configurations entail.

Factors contributing to parental post-separation adjustment and parenting capacity

A summary of factors contributing to parental post-separation adjustment and parenting capacity is presented in Figure 23.1. The factors in this model are based on extensive literature reviews and important key studies (Ahrons, 2011; Amato, 2000, 2010; Amato & Gilbreth, 1999; Amato & Keith, 1991; Anderson, 2012; Bray & Hetherington, 1993; Driver et al., 2012; Faust & McKibben, 1999; Greene et al., 2012; Hetherington & Kelly, 2002; McGoldrick & Carter, 2011; Raschke, 1987; Scott et al., 2013; Solomon & Jackson, 2014; Valenzuela et al., 2014).

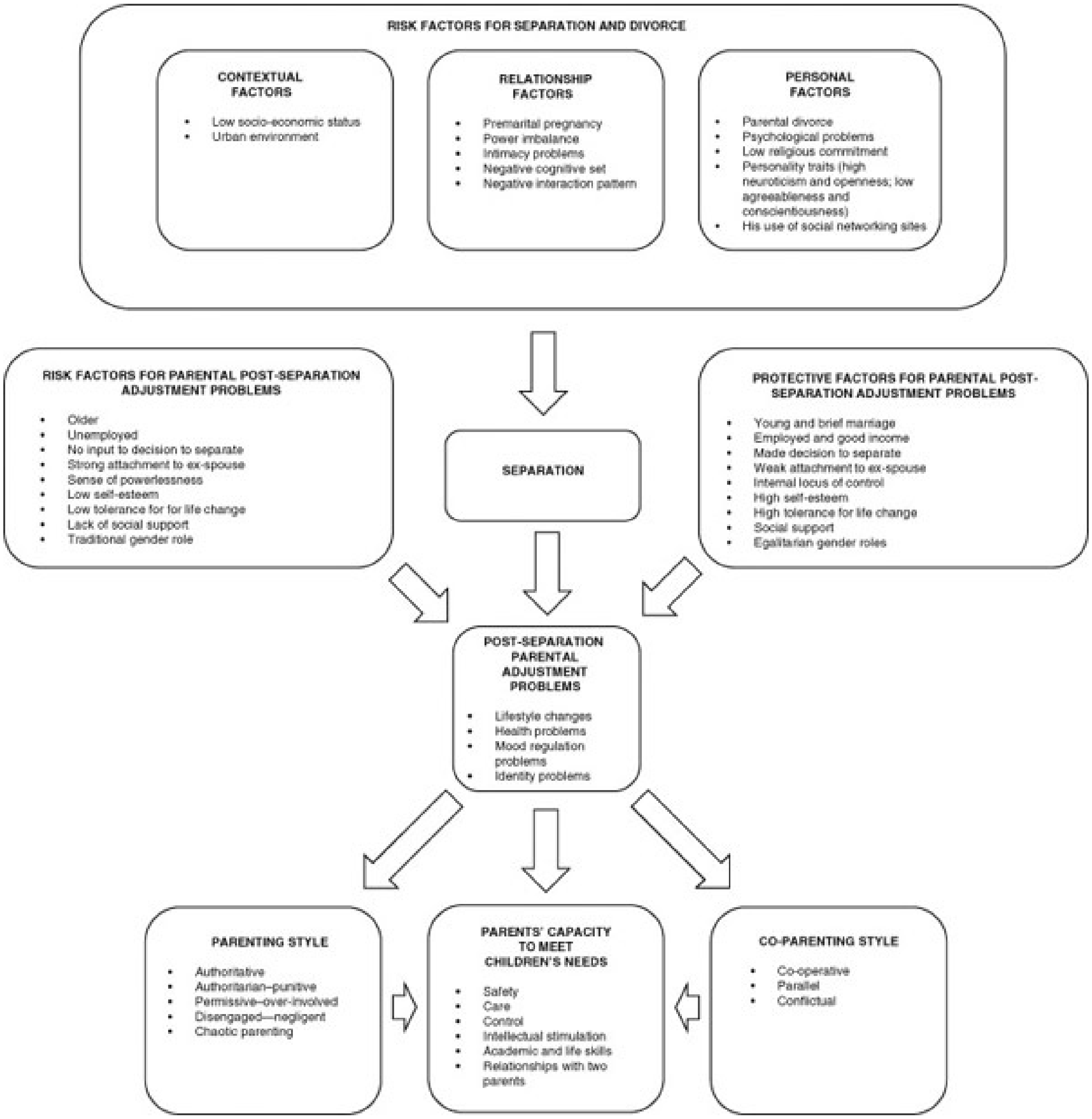


Figure 23.1 Factors contributing to parental post-separation adjustment and parenting capacity

Risk factors for separation and divorce

Risk factors for separation and divorce may be classified as those associated with the relationship, the individual and the wider social context.

Relationship factors. Divorce rates are higher among couples with premarital pregnancy. Difficulties with communication and intimacy on the one hand, and the power balance or role structure of the marriage on the other, are the two major reasons given for divorce (Scott et al., 2013). Both men and women identify lack of communication, understanding and love on the part of their partner as the main reason for divorce. These communication problems are typically part of the wider difficulty of establishing and maintaining a satisfactory level of psychological intimacy. Disagreement over roles and power relationships is the second most common reason for divorce. Men complain of their wives being too authoritarian and too ready to engage in nagging and fault-finding. Women complain of the constraints that the marriage places on them fulfilling their needs for personal and financial autonomy and independence. Other prominent reasons for divorce, which stem from intimacy and power problems, are infidelity, immaturity, incompatibility, religious differences, childlessness, alcohol misuse, intimate partner violence and lack of sexual satisfaction. With sex, women complain about the quality and men, about the quantity.

Observational studies (e.g. Driver et al., 2012) of distressed couples who subsequently separate show that they gradually engage in more negative interactions than positive interactions. This escalation of a negative interactional style includes four linked behaviours: criticism, contempt, defensiveness and stonewalling. As the ratio of negative to positive interaction increases, both partners attend selectively to their spouses' negative behaviours while ignoring positive behaviours. Partners in distressed marriages also consistently attribute global, stable, negative intentions to their spouses for negative or ambiguous behaviour but attribute their spouses' positive behaviour to situational factors. This negative cognitive style coupled with the increase in negative interactions leads to growing feelings for both partners of hurt or fear on the one hand and anger on the other. Both of these emotional states exacerbate the negative interaction patterns and negative cognitive styles. As these negative cognitive, emotional and interactional process become stronger, members of the couple perceive the marital problems as more severe and engage in more solitary rather than shared problem solving. At this stage partners become isolated from each other and begin to live parallel lives. Eventually, usually following some critical incident, the whole history of the marriage is re-construed in a negative way, which gives a rationale for the decision to divorce.

Personal factors. A history of parental divorce, low religious commitment, previous psychological problems, particular personality traits (high neuroticism, high openness to experience, low agreeableness and low conscientiousness), and high use of social networking sites are risk factors for divorce (Faust & McKibben, 1999; Greene et al., 2012; Raschke, 1987; Solomon & Jackson, 2014; Valenzuela et al., 2014). Parental divorce probably places people at risk of divorce because separation rather than sustained negotiation and conflict resolution is the role model individuals have experienced in their formative years for dealing with conflict in intimate relationships. Low religious commitment may place people at risk of divorce because they are not bound by a religious prohibition against divorce or a religious view of marriage as a sacred lifelong commitment. Higher rates of negative interactions and emotions occur in relationships where individuals have psychological problems such as depression, anxiety, substance use and personality disorders. This in turn may place individuals with these problems at risk for divorce. With regard to personality traits, high levels of neuroticism and openness and low levels of agreeableness and conscientiousness have a negative effect on the quality of romantic relationships and ultimately lead to increased risk of separation (Solomon & Jackson, 2014). Individuals with a high level of neuroticism experience and induce more negative emotions in others than emotionally stable individuals. Low agreeableness is associated with engaging in negative rather than positive interaction patterns and low conscientiousness leads people to have impulsive reactions. Thus people with these traits are at risk for divorce because they are prone to initiating impulsive negative interactions. High levels of openness are associated with the exploration of multiple new relationships and activities. This may lead to conflict about infidelity or devotion of too much time to non-shared recreational activities. Excessive use of social networking sites, as risk factor for divorce, may arise from the opportunities it affords for infidelity (Valenzuela et al., 2014).

Contextual factors. Socio-economic status and urban/rural geographical location are important contextual factors associated with divorce (Faust & McKibben, 1999; Greene et al., 2012; Raschke, 1987). The lack of economic and educational resources associated with low socio-economic status, and the lack of community integration associated with rural living, are possible explanations for the associations of these factors with divorce.

Risk and protective factors for parental post-divorce adjustment

The following factors affect parental adjustment to divorce: the way the divorce decision was made, age, length of marriage, income, occupational status, social supports, and personal psychological resources (Ahrons, 2011; Amato, 2000, 2010; Amato & Gilbreth, 1999; Amato & Keith, 1991; Anderson, 2012; Bray & Hetherington, 1993; Faust & McKibben, 1999; Greene et al., 2012; Hetherington & Kelly, 2002; McGoldrick & Carter, 2011; Raschke, 1987). Better adjustment following divorce occurs when individuals are young, have been married for a brief period and have either initiated the divorce or mutually agreed to divorce. A good income and having a job before the divorce occurred leads to good post-divorce adjustment, particularly for women. A belief in one's personal effectiveness, high self-esteem and a high tolerance for life changes are associated with good post-divorce adjustment, as are an egalitarian gender-role orientation, diminished attachment to the ex-spouse and the availability of social support from friends and the extended family. Poorer adjustment following divorce occurs when individuals are older, have been married for a long period and have had little input to the decision to divorce. A low income and the absence of a job outside the home before the divorce leads to poor post-divorce adjustment, particularly for women. A sense of personal powerlessness, low self-esteem and a low tolerance for life changes are associated with post-divorce maladjustment, as are a traditional gender-role orientation and a sustained attachment to the ex-spouse.

Effect of divorce on parents: post-separation parental adjustment problems

Divorce leads to multiple life changes which affect parental well-being (Ahrons, 2011; Amato, 2000, 2010; Amato & Gilbreth, 1999; Amato & Keith, 1991; Anderson, 2012; Bray & Hetherington, 1993; Faust & McKibben, 1999; Greene et al., 2012; Hetherington & Kelly, 2002; McGoldrick & Carter, 2011; Raschke, 1987).

Life changes. Divorce leads custodial parents to experience major changes in their lives including a change in residential arrangements, economic disadvantage, loneliness associated with social network changes, and role strain associated with the task overload that results from having to care for children and work outside the home. Non-custodial parents experience all of these changes with the exception of role strain. For custodial fathers, role strain and task overload are less extreme than for women for two reasons. First, members of men's networks are more likely to see them as incompetent homemakers and so offer help with cooking and cleaning. Second, men are more economically advantaged and so are better able to afford childminders or domestic help. Also, the impact of economic disadvantage is less for divorced men than women. In US surveys, non-custodial fathers have been shown to suffer few long-term economic difficulties as a result of divorce. After 3 years their post-divorce income is only marginally below their pre-divorce income in the majority of cases. Women suffer major economic problems following divorce. About half are below the poverty line during the first 2 years post-divorce and during this period they suffer a 35% drop in income.

Health. Changes in divorced couples' residential arrangements, economic status, social networks and role demands lead to a deterioration in physical and mental health for the majority of individuals immediately following separation. However, for most people these health problems abate within 2 years of the divorce.

Mood swings. Both men and women suffer extreme emotional lability in the period leading up to separation and for the 2-year post-separation period. An awareness of the opportunities for a new way of life and escape from the emotional pain of chronic marital discord both lead to periods of elation. The loss of a familiar way of life, the loss of a long-standing partner and a fear that alone one may not meet the extraordinary challenges that go with being a single person or a single parent commonly are associated with episodes of depressed mood.

Identity problems. For women in particular, separation is associated with a crisis of identity. Prior to separation many women define themselves in terms of their husbands or their children. Also women may rely on their husbands to develop a social network of friends. After separation, women who have relied on their husbands for self-definition find that they experience confusion about their identity. They have to redefine their self-concept in terms of their own role and develop their own social network. Women who have jobs outside the home experience fewer identity problems in the aftermath of divorce.

Gender differences. Men and women differ in their stress responses to the process of separation and divorce (Amato, 2000; Bray & Hetherington, 1993; Faust & McKibben, 1999;

Greene et al., 2012). Women are unhappy in their marriages for longer than men. Economic difficulties are a primary reason for women not divorcing while men give primacy to the fear of separation from their children. Women's most stressful period is that just before the divorce. For men it is the period which follows the divorce that is most stressful. This is evidenced by the low level at which the immune system functions in women and men during the pre- and post-divorce periods, respectively. Immune system functioning improves as attachment to the ex-spouse decreases.

Impact of divorce on parenting

The stresses and stains of residential changes, economic hardship, role changes and consequent physical and psychological difficulties associated with the immediate aftermath of separation and divorce may compromise parents' capacity to cooperate in meeting their children's needs for safety, care, control, intellectual stimulation, education and relationships with each parent (Ahrons, 2011; Amato, 2000, 2010; Amato & Gilbreth, 1999; Amato & Keith, 1991; Anderson, 2012; Bray & Hetherington, 1993; Faust & McKibben, 1999; Greene et al., 2012; Hetherington & Kelly, 2002; McGoldrick & Carter, 2011; Raschke, 1987). Authoritarian/punitive parenting, permissive/over-involved parenting, disengaged/neglectful parenting and chaotic parenting which involves oscillating between these extreme styles are not uncommon among both custodial and non-custodial parents who have divorced. Some parents manage to develop a supportive authoritative parenting style, especially if there are many protective factors present. Three distinct co-parenting styles have been identified in studies of divorced families. These are described next and their impact on children's adjustment given.

Co-operative parenting. With co-operative parenting, parents develop a unified and integrated set of rules and routines about managing the children in both parents' households. This is the optimal arrangement but only occurs in about one in five cases.

Parallel parenting. With parallel parenting, each parent has his or her own set of rules for the children and only limited attempts are made to integrate these. Fortunately, such separate sets of rules, typically hold much in common. The greater the degree of overlap between parents' separate rule systems and the greater the degree of respect parents hold for each other's sets of parenting standards, the better their children's adjustment. Where parallel parenting systems are not too discrepant and parents do not undermine each other's parenting practices unduly, most children in the medium and long term show few major adjustment problems. Parallel parenting is the most common parenting pattern in divorced families.

Conflictual parenting. In this situation parents adopt conflicting sets of rules, routines and parenting practices. Communication between parents is conflictual, and frequently they do not communicate directly with each other. Rather they ask the child to send messages to each other. This triangulation process, in which children are required to adopt a go-between role, is very stressful for children and leads to significant adjustment problems.

Effects of divorce on children

A distinction may be made between the short-, medium- and long-term effects of divorce, which are described next (Amato, 1993, 2000, 2001, 2010; Amato & Gilbreth, 1999; Amato & Keith, 1991; Fine & Harvey, 2006; Greene et al., 2012; Kelly, 2000; Leon, 2003; Reifman et al., 2001; Rogers, 2004; Wallerstein, 1991).

Short-term effects. For the 2-year period immediately following divorce, most children show some adjustment problems. Boys tend to display conduct or externalizing behaviour problems and girls tend to experience emotional or internalizing behaviour problems. Both boys and girls may experience educational problems and relationship difficulties within the family, school and peer group.

Medium-term effects. The impact of divorce on children between 3–10 years following divorce may be statistically expressed in two ways: (1) as differences between the average or mean level of well-being or maladjustment of children of divorce compared with the mean level of well-being or maladjustment in intact families; and (2) as the percentage of children of divorce who show adjustment difficulties.

The mean level of maladjustment has consistently been found to be worse for children of divorce in comparison with those from intact families on a variety of measures of adjustment including conduct difficulties, emotional problems, academic performance, self-esteem and relationships with parents. This has led to the erroneous conclusion by some interpreters of the literature that divorce always has a negative effect on children.

When the impact of divorce on children is expressed in terms of the percentages of maladjusted children, it is clear that divorce leads to maladjustment for only a minority of youngsters. About 25% of children of divorced parents show serious long-term psychological problems. Reviews of major international epidemiological studies of child psychopathology in community samples (which include both intact and divorced families) conclude that in any 3–6 month period about 1 in 4 children meet the diagnostic criteria for a psychological disorder (Costello et al., 2004; Merikangas et al., 2009). These findings suggest that there is probably not a major difference in prevalence rates of psychological disorders among children from intact and divorced families.

Long-term effects. In adult life a small proportion of individuals from families where divorce has occurred have difficulty making and maintaining stable marital relationships; have significant psychological adjustment difficulties; and attain a lower socio-economic level in comparison with adults who have grown up in intact families.

Factors related to children’s adjustment following divorce

Certain characteristics of children and certain features of their social contexts mediate the effects of parental divorce on their adjustment (Amato, 1993, 2000, 2001, 2010; Amato & Gilbreth, 1999; Amato & Keith, 1991; Anderson, 2012; Faust & McKibben, 1999; Greene et al., 2012; Kelly, 2000; Leon, 2003; Pasley & Garneau, 2012; Reifman et al., 2001; Rogers, 2004; Visher et al., 2003; Wallerstein, 1991). These factors have been classified as predisposing, protective and maintaining factors and are summarized in Figure 23.2. These factors probably have a cumulative effect, with more predisposing and maintaining factors being associated with worse adjustment and more protective factors being associated with better adjustment.

Predisposing personal factors. Males between the ages of 3 and 18 are particularly at risk for post-divorce adjustment problems, especially if they have biological vulnerabilities associated with genetic factors, pre-natal and peri-natal difficulties, or a history of serious illness or injury. Children with low intelligence, a difficult temperament, negative personality traits such as high neuroticism or impulsivity, low self-esteem, an external locus of control, and a history of psychological difficulties are also predisposed to developing post-separation problems.

Predisposing contextual factors. Children are more likely to develop post-separation difficulties if there have been serious difficulties with the parent–child relationship prior to the separation. Included here are insecure attachment, inconsistent discipline and authoritarian, permissive or neglectful parenting. Exposure to chronic family problems including parental psychological problems or criminality, marital distress, domestic violence, family disorganization, and a history of previous separations and reunions also places children at risk for post-separation adjustment problems. Early life stresses such as separations, abuse, bereavement or social disadvantage may also compromise children’s capacity to deal with stresses entailed by parental separation.

Personal maintaining factors. Adjustment problems may be maintained by rigid sets of negative beliefs related to parental separation. These beliefs may include a view that the child caused the separation and has the power to influence parental reunification, or a belief that abandonment by parents and rejection by peers is inevitable. Low self-efficacy beliefs, a dysfunctional attributional style, dysfunctional coping strategies and immature defences may also maintain post-separation adjustment problems.

Contextual maintaining factors. Adjustment problems following separation may be maintained by certain features of the child’s social context. Poorer adjustment occurs in the first 2 years following divorce where there is little parental co-operation; where children are triangulated and required to adopt a go-between role, carrying messages between parents who are in conflict; and where children are asked to take sides in parental conflicts. The use of non-optimal parenting styles, a lack of consistency in parental rules and routines across custodial and non-custodial households, a lack of clarity about new family roles and routines within each household, confused family communication, and conflict with parents' new partners and their children may all maintain children's post-separation adjustment problems. These parenting and co-parenting problems which maintain children's adjustment difficulties are in turn often a spin-off from parents' personal post-separation adjustment problems which were described earlier.

Other parental vulnerabilities that may compromise their capacity to support their children adequately following separation include an insecure adult attachment style, an external locus of control, low parental self-efficacy, a dysfunctional attributional style, cognitive distortions and dysfunctional beliefs, dysfunctional coping strategies and immature defence mechanisms. The degree to which parental psychological vulnerabilities and post-separation problems compromise their capacity to provide a co-parenting environment that minimizes rather than maintains their children's adjustment reactions is partially determined by the stresses parents face in the aftermath of separation. These include the loss of support, financial hardship and social disadvantage. The challenges that parents face in managing children's post-separation adjustment problems are greatest where the sibling group is all male or contains boys and girls. These types of sibling groups, in comparison with all-female sibling groups, tend to become involved in problem-maintaining interaction patterns. From the child's perspective, an unsupportive school placement is the principal social network factors that may potentially maintain their post-separation adjustment difficulties.

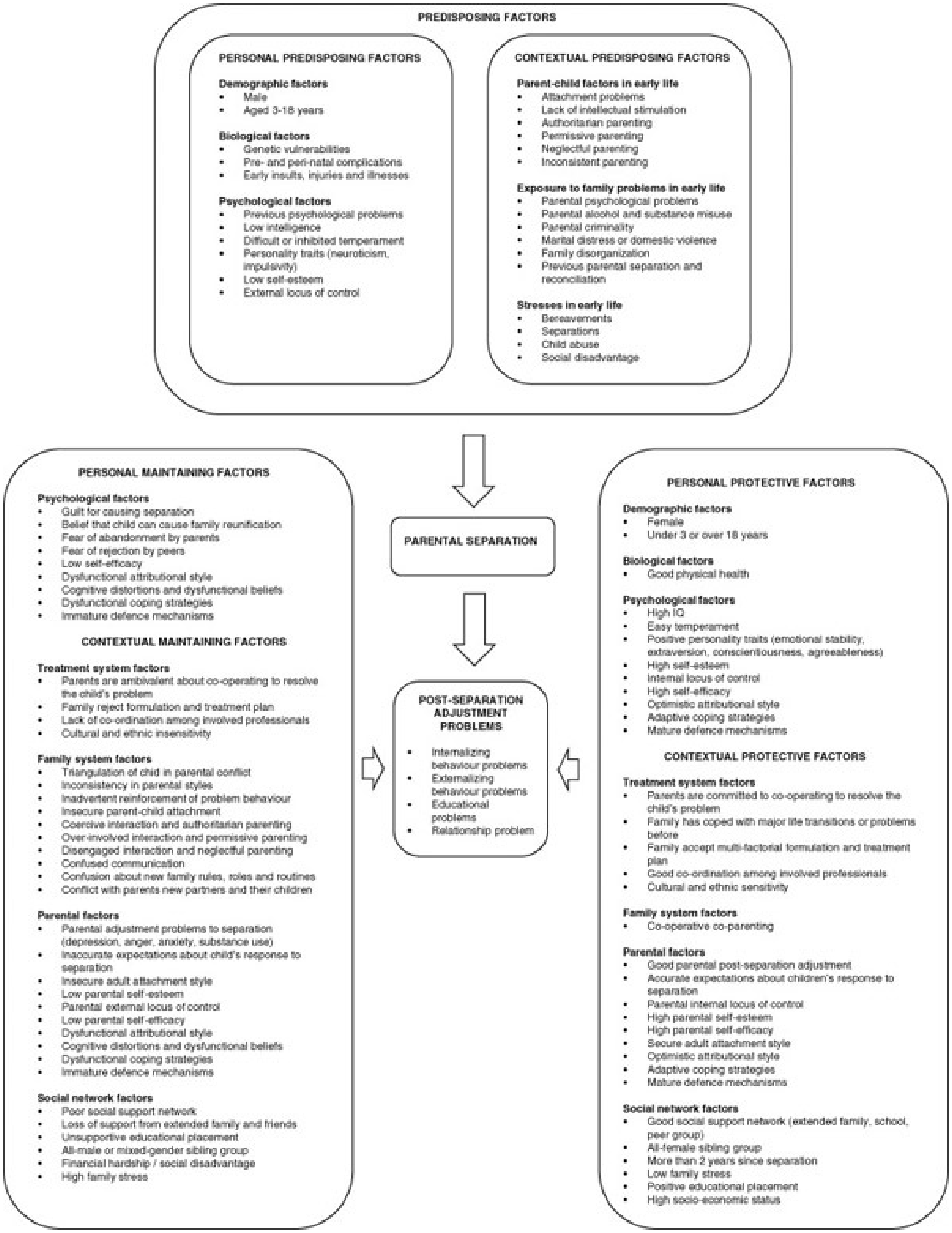


Figure 23.2 Factors contributing to children's adjustment following separation or divorce

Personal protective factors. Better post-separation adjustment occurs in physically healthy intelligent girls of easy temperament who are either in their infancy or late adolescence when divorce occurs, especially if they have high self-esteem, an internal locus of control, an optimistic attributional style and high self-efficacy. Positive personality traits (emotional stability, extraversion, conscientiousness and agreeableness), mature defences and functional coping strategies may also contribute to positive post-divorce adjustment.

Contextual protective factors. Certain characteristics of the child's family, social network and school environment may protect the child from developing adjustment problems following separation. The single most important contextual protective factor is the parents' use of a co-operative authoritative co-parenting style. Where parents cope well with post-separation grief, have accurate expectations about their children's post-separation adjustment, have good personal psychological resources, and a high level of satisfaction within their new relationships, children show better post-separation adjustment. Parental resources that may increase their capacity to support their children following separation include a secure adult attachment style, an internal locus of control, high parental self-efficacy, an optimistic attributional style, adaptive coping strategies and mature defence mechanisms. Fewer adjustment problems occur in families where the sibling group is composed entirely of females. The availability of social support for both parents and children from the extended family and peers and the absence of financial hardship are also protective factors for post-separation adjustment. Where the school provides a concerned student-centred, achievement-oriented ethos with a high level of student contact and supervision, children are more likely to show positive adjustment following separation. Better post-separation adjustment occurs usually after a 2-year period has elapsed.

Treatment system factors. When children of separated or divorced families are referred for help with mental health problems, features of the treatment system may be considered maintaining or protective factors. Children's problems may be maintained by parents' ambivalence about co-operating to resolve the child's problem; the family's rejection of the formulation and treatment plan; a lack of co-ordination among involved professionals; and in the case of ethnic minority families, insensitivity of the clinical team to the family's cultural norms, practices and beliefs. In contrast, parental commitment to working co-operatively with each other and the clinical team in resolving children's problems and a track record of coping well with transitions in family life may be viewed as protective factors. Other important protective factors are co-ordination among involved professionals and sensitivity to the distinctive needs of ethnic minority families.

Developmental stages of family transformation

Family transformation through separation, divorce and re-marriage may be conceptualized as a process involving a series of stages as shown in Table 23.1 (McGoldrick & Carter, 2011). This model outlines tasks that must be completed during various stages of the transformation process that involves divorce and re-marriage. Failure to complete tasks at one stage may lead to adjustment problems for family members at later stages.

In the first stage the decision to divorce occurs, and accepting one's own part in marital failure is the central task. In the second stage, plans for separation are made. A co-operative plan for custody of the children, visitation, finances and dealing with the response of the parents' families of origin to the plan to separate must be made if positive adjustment is to occur. The third stage of the model is separation and divorce. Mourning the loss of the intact family; adjusting to the change in parent–child and parent–parent relationships; preventing marital arguments from interfering with inter-parental co-operation, staying connected to the extended family and managing doubts about separation are the principal tasks at this stage. The fourth stage is the post-divorce period. Here couples must maintain flexible arrangements about custody, access and finances without detouring conflict through the children; retain strong relationships with the children; and re-establish peer relationships and a social network. Establishing a new relationship occurs in the fifth stage. For this to occur emotional divorce from the previous relationship must be completed and a commitment to a new marriage must be developed. The sixth stage of the model is planning a new marriage. This entails planning for co-operative financial and co-parental relationships with ex-spouses and planning to deal with children's loyalty conflicts involving natural and step-parents. It is also important to adjust to the widening of the extended family. In the final stage of the model establishing a new family is the central theme. Realigning relationships within the family to allow space for new members and sharing memories and histories to allow for integration of all new members are the principal tasks of this stage.

Table 23.1 Extra stages in the family lifecycle entailed by separation or divorce and re-marriage

Phase	*Stage*	*Emotional transition processes*	*Tasks essential for developmental progression*
Divorce	**Decision to divorce**	Accepting that the couple's problems are not resolvable	Accepting one's own part in marital failure
	Planning separation	Supporting viable living arrangements for all family members following separation	Cooperatively developing a plan for custody of the children, visitation and finances Dealing with the extended family's response to planned separation
	Separation and divorce	Committing to continued co-operative co-parenting and joint financial support of children	Mourning the loss of the intact family Managing doubts about separation and becoming committed to divorce Adjusting to the change in parent–child and parent–parent

		Beginning to break attachment to partners	relationships Staying connected to partners’ extended families
Post-divorce family	**Establishing single-parent custodial and non-custodial households**	Engaging in co-operative co-parenting and joint financial support of both households	Maintaining flexible arrangements about custody, access and finances without detouring conflict through the children Ensuring both parents retain strong relationships with the children Managing changed financial circumstances Re-establishing peer relationships and a social network
Re-marriage	**Entering a new relationship**	Recovering from emotional divorce and loss of first marriage	Developing commitment to a new marriage
	Planning a new marriage and family	Accepting concerns about forming new family Being patient about time required to adjust to the complexity of the new family arrangements	Planning to deal with children’s loyalty conflicts involving natural and step-parents Planning arrangements for continued cooperative financial and co-parental relationships with ex-partners within the context of new family relationships
	Establishing a new family	Breaking attachment to previous partners Giving up the ideal of an ‘intact family’ and accepting a different family model	Realigning family relationships to allow space for new members Sharing memories and histories to allow for integration of all new members Continuing cooperative financial and co-parental relationships with ex-partners within context of new relationship

Note: Adapted from McGoldrick et al. (2011), pp. 320–321.

Characteristics of step-families

The majority of divorced people remarry, and these step-families have unique characteristics which are in part affected by the conditions under which they are formed (Pryor, 2008; Sweeney, 2010). On the positive side, surveys of step-families have found them to be more open in communication, more willing to deal with conflict, more pragmatic, and less romantic and more egalitarian with respect to childcare and housekeeping tasks. On the negative side, compared with intact first marriages, step-families are less cohesive and more stressful. Step-parent–child relationships on average tend to be more conflictual than parent–child relationships in intact families. This is particularly true of step-father–daughter relationships and may be due to the daughter's perception of the step-father encroaching on a close mother–daughter relationship.

Children's adjustment following re-marriage

Children's adjustment following re-marriage is associated with age, gender and parents' satisfaction with the new marriage (Greene et al., 2012; Hetherington & Stanley-Hagan, 2002; Pasley & Garneau, 2012; Visher et al., 2003). Good adjustment occurs when the custodial parent remarries while children are pre-adolescent or in their late adolescence or early adulthood. All children in divorced families resist the entry of a step-parent. But during the early teenage years (10–15) this resistance is at a maximum. Divorced adults with children in middle childhood and early adolescence who wish to remarry should try to wait until after the children have reached about 16–18 years if they want their new relationship to have a fair chance of survival. Re-marriage is more disruptive for girls than for boys. Marital satisfaction in the new relationship has a protective effect for young boys and it is a risk factor for pre-adolescent girls. Young boys benefit from their custodial mothers forming a satisfying relationship with a new partner. Such satisfying relationships lead step-fathers to behave in a warm, child-centred way towards their step-sons and to help them learn sports and academic skills. These skills help young boys become psychologically robust. Pre-adolescent girls feel that the close supportive relationship they have with their divorced mothers is threatened by development of a new and satisfying marital relationship. They usually respond with increased conduct problems and psychological difficulties. In adolescence, when re-marriage has occurred while the children were pre-adolescent, a high level of marital satisfaction is associated with good adjustment and a high level of acceptance of the step-parent for both boys and girls.

Table 23.2 Structured assessment instruments for use in cases of separation or divorce

Construct	*Instrument*	*Author & Date of Publication*	*Commer*
			This 36- report s

Children’s perception of divorce and separation	Children’s Beliefs About Parental Divorce Scale	Kurdek, L. (1987). Children’s Beliefs About Parental Divorce Scale. Psychometric characteristics and concurrent validity. *Journal of Consulting and Clinical Psychology, 55*, 712–718.	scores about ridicule, blame, blame, fear abandon hope reunifica
	Divorce Events Schedule for Children	Wolchik, S., Sandler, I., Braver, S., & Fogas, B. (1985). Events of parental divorce: Stressfulness ratings by children, parents and clinicians. *American Journal of Community Psychology, 14*, 59–74.	This 62-i event inven allow to rat stress divor life e for th
	Child Adjustment Inventory	Portes, P., Lehman, A., & Brown, J. (1999). The Child Adjustment Inventory: Assessing transition in child divorce adjustment. *Journal of Divorce & Remarriage, 30*, 37–45.	This 23-i instru asses child’ and t about divor
	Bricklin Scales	Bricklin, B. (1990). *The Bricklin Perceptual Scales: Child perception of parent series (Revised)*. Doylestown, PA: Village. http://www.custody-vp.com	This 64-i (32 fo perce moth for pe of fat syste obtai infor from years about child’ perce each four areas comp

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Child's perception of parents	Perception of Relationships Test	Bricklin, B. (1990). *Perception of Relationships Test*. Doylestown, PA: Village. http://www.custody-vp.com	The test, 5s, co seven (most drawi measu degre which seeks psych 'close paren streng weak devel result intera each Comp hand syste availa
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Parent's post-separation adjustment as an individual	Fisher Divorce Adjustment Scale	Fisher, B. (1976). *Fisher Divorce Adjustment Scale.* https://www.rebuildingseminars.com/self-test-fisher-divorce-adjustment-scale	This 100 repor inven asses paren adjus divor yields self-w inves past l relati anger partn grievi relati fear c intim an ov adjus end o relati
	Acceptance of Marriage Termination Scale	Thompson, L., & Spanier, G. (1983). The end of marriage and acceptance of marriage termination. *Journal of Marriage and the Family*, *45*, 103–113.	This 15-i repor meas of co to the and a that i ende

Assessment and formulation

Where young people present with adjustment difficulties associated with separation or divorce, a thorough assessment of child and family functioning should be conducted. The assessment protocol set out in Chapter 4 may be supplemented with the frameworks given in

Figures 23.1 and 23.2 and Table 23.1. Some psychometric instruments that may be useful in the assessment of cases where separation has occurred are set out in Table 23.2. Salient points from the assessment should be integrated into a coherent formulation that specifies key predisposing, maintaining and protective factors present in the case. A management plan based on the formulation should then be given.

Therapy programmes for adjustment problems

Reviews of therapy programmes for adjustment problems following separation and divorce show that group-based child-focused and adult-focused interventions can lead to significant improvements in children's adjustment (Fackrell et al., 2011; Goodman et al., 2004; Rose, 2009; Sigal et al., 2011; Stathakos & Roehrle, 2003). There is also a broad clinical literature which advocates the use of family therapy–based interventions following separation and divorce to help family members deal with the transitions entailed by divorce, adjust to their new role demands and address various adjustment difficulties (Anderson & Anderson, 2011; Dowling & Gorell-Barnes, 1999; Kaslow, 1995; Lebow, 2008; Lebow & Rekart, 2007; McGoldrick & Carter, 2011; Robinson, 1997; Visher et al., 2003). From these literatures, the following guidelines for practice have been drawn.

When families present with post-separation adjustment difficulties, a multi-systemic intervention package based on a thorough assessment and formulation is probably the best course of action to take. Such multi-systemic intervention programmes may include work with the entire system including the original family and new partners and their children. It may also include work with a variety of sub-systems including individual family members or various groupings of family members. Multi-systemic programmes may include one or more of the following elements

- psychoeducation
- clarifying family routines and roles
- arranging cross-household consistency in rule systems and parenting styles
- parenting skills training
- facilitating support for the child from the school and the extended family
- providing support and skills training for parents and children
- facilitating grief work.

Psychoeducation. Psychoeducational interventions provide parents with information about legal and financial issues related to separation or direct them to appropriate sources for such information. Both parents and children also require information on what we currently know about the psychology of separation and divorce. Begin by noting that while separation feels like an extremely unusual event for almost everyone, it has become a routine experience for 1 in 3 families in most Western cultures. All family members should be given information about the stages of transition, set out in Table 23.1, that occur when a family is transformed through separation. It is important to stress that the process of transformation and the adjustment problems that follow tend to be quite intense for a year, and after 2 years the majority of families and children will have completed making the more important aspects of their adjustment to the separation. Thus, most children's conduct and emotional adjustment reactions abate after 2 years.

For children it is important to highlight that separation reflects a problem with the marital relationship rather than a problem with the parent–child relationship. Children, therefore, are not to blame for parental divorce, nor is there anything that they can do to reunite their parents.

The importance of maintaining as much stability as possible in the children's routines should be emphasized. Thus, ideally children should remain in the same house, attend the same school, engage in the same peer activities and so forth.

The importance of avoiding triangulation or attempting to persuade the children to take sides with one or other parent should be stressed. Parents and children should be helped to clearly distinguish between the marital relationship, which is dissolved through separation, and the co-parental relationship, which continues despite the fact that parents live in different houses. It is important to emphasize that parents must prevent negative feelings associated with the marital relationship from interfering with inter-parental co-operation in caring for the children, since failure to do so will have a negative effect on the children.

Separation inevitably involves grieving and the intense and painful experiences of loss, denial, sadness, anger, anxiety and eventually acceptance. At times these emotional experiences are almost unbearable, but most children work through them successfully and emerge from the grieving process hurt but strengthened by the experience, provided they are supported through this transition by both parents in a co-operative way.

Clarifying family routines and roles. When parents separate and establish separate households, with or without new partners, and with or without other children, new routines need to be clarified. Thus, new daily routines for getting up and going to work or school, mealtimes, leisure activities, cleaning, transportation and so forth need to be developed. There are also new weekly routines for visiting with both parents now that they live in separate households. Annual routines for managing holidays, birthdays, Christmas and other special events all require clarification. One role for the psychologist is to facilitate the negotiation of these new routines and roles with appropriate family sub-systems.

Where parents have new partners, and these partners have children, the role relationships between family members who have not lived together before need to be worked out. This process of negotiating role relationships typically involves a practical aspect and an emotional aspect. At a practical level, there are negotiations such as who does what chores around the house; who sleeps where; who gets priority in using the car, the TV or any other resource; and the hierarchy in the household. That is, who can tell whom what to do. At an emotional level, the attachments between family members need to evolve and each member needs to find a way to feel that they are adequately supported at an emotional level.

Where families have difficulty evolving new routines and role relationships, meetings may be held with the whole family or with various sub-systems to facilitate this process. Typically this work involves brainstorming options and selecting the option that seems most viable; inviting relevant family members to try apparently viable options; and reviewing and revising these options in follow-up meetings.

Within such meetings the psychologist's function is to slow the pace of communication and introduce a fair system for turn-taking, since often intense emotions are aroused by issues such as where children should spend Christmas or who should have the right to use the car. One system that I find helpful is to make a rule that only one person may speak at a time in these sessions and that person must be holding a token (such as a pen or a flag), which all agree is a symbol for permission to speak. Without some system for turn-taking, these meetings degenerate into chaotic free-for-alls or silent tension-ridden sessions.

Arranging cross-household consistency in rule systems. One particularly important set of role relationships are those associated with the family hierarchy. Prior to separation this is usually fairly clear. Both parents are in charge of all of the children and the children therefore adopt a subordinate role, particularly with respect to house rules about education, time-keeping, safety, aggression, drug use and so forth. Following separation, a variety of common problems occur. First, parents may have difficulty agreeing on one set of rules and one set of sanctions for both households. One parent may consciously or unconsciously undermine the other's rule system. Second, within one or both households, parents may find that the stress associated with separation has compromised their capacity to set clear rules and follow through on consequences. A third problem is that there may be a lack of clarity about whether or not step-parents may set and enforce house rules.

During the transitional period following separation many children, but particularly boys, respond to the stress with aggression and conduct problems. Often underpinning this aggression is guilt about causing the separation and a fear of abandonment. What is required in such instances is, first, family work that aims to increase the child's sense of security with both parents. A useful way to achieve this is to help families set up weekly episodes of special time for the youngster with each parent. The second important way to manage conduct problems is to maximize consistency of rule systems used across both households and arrange for parents and step-parents to participate in implementing this system. In some cases it is possible to hold family meetings in which all parents meet with the psychologist at the same time and agree on a set of rules, rewards and sanctions applicable in both households and then subsequently meet with the child and explain these as a group. However, often the inter-parental conflict is too intense to permit this type of ideal intervention. In these instances, the same agreement is negotiated separately with the adults in each household. This is then explained to the child by each set of parents in separate meetings.

Parenting skills training. In some instances where attempts to arrange cross-household consistency in rule systems is unsuccessful, it becomes apparent that one or more parents or step-parents lack parenting skills. In such instances they may be trained to track positive and negative target behaviours, no more than three at a time. They may then be trained to use reward programmes and star charts to increase positive behaviours and time-out to decrease negative behaviours. With adolescents, training in negotiation skills and contingency contracting may be used. Parenting skills training is discussed more fully in Chapter 10, where conduct problems are the central concern. Once all parents are proficient in basic behavioural parenting skills, family work should focus on arranging cross-household consistency in rule systems and the rule systems should be implemented using behavioural parenting methods.

Some children present with elimination problems, sleep difficulties, anxiety states, mood problems and substance misuse as part of an adjustment reaction to separation. In such instances, guidelines for managing these problems set out elsewhere in this text should be followed. However, for all of these problems it is vital to ensure that cross-household consistency is arranged in the understanding and management of the young people's difficulties.

Facilitating support for the child from the school and the extended family. The school and extended family are important potential sources of support for young people with adjustment problems following separation. However, these potential sources of support may become sources of stress if teachers, grandparents and others misunderstand children's adjustment problems. One role for the psychologist is to empower parents to explain the youngster's situation to teachers or to facilitate meetings between parents, children and teachers in which the young person's situation may be explained. The core agenda for such meetings is to clarify that the child is coping with family transformation and that this is very stressful. Sometimes children respond to this stress by failing to concentrate, and becoming angry, anxious or sad. These problems are transitory. The school may help the child cope by understanding these difficulties and agreeing on a joint management plan with the parents and the child.

With extended families, often separation leads to a decrease in the amount of supportive contact that the child has with grandparents, aunts and uncles, particularly in the non-custodial parent's family. This is unfortunate, since during stressful life transitions children require an increase rather than a decrease in such contacts. Thus, an important role for the psychologist is to increase the frequency of supportive contracts between the child and members of the extended family.

Providing support. Many parents require ongoing support to deal with the sense of isolation, failure and rejection which often accompanies divorce. They require a regular opportunity to ventilate their feelings and process the intense emotions that occur as part of family transformation. This type of support may be provided within individual sessions, in sessions where parents attend with their new partners, or in groups for separated parents. In most districts there is a self-help support group for separated parents. It is useful to make information about such groups available as early as possible in the consultation process, since most parents find them extraordinarily supportive. Common themes that emerge in such groups include the sense of isolation; the sense of being overwhelmed by the life transition; the loss of the spouse role; parenting difficulties; managing co-parenting; dealing with the possibilities of dating and sex; grieving and letting go of the marriage; and managing reaction of the extended family to separation.

For children, such support groups are less readily available. It is therefore not surprising that clinical psychologists have developed a number of protocols for running such groups. Most of these provide children with information of the type mentioned in the section on psychoeducation and provide children with an opportunity to express their intense feelings about the separation process using verbal or artistic media. Common themes which emerge in such expressive sessions are a fear of abandonment by one or both parents; a wish to reunite the family; guilt for having caused the separation; splitting parents into the wholly good parent and the wholly bad parent and directing anger at the bad parent while idealizing the good parent; anger at parents' new partners; a fear of peer rejection because of parental separation; a sense of loss and sadness; and a sense of helplessness and confusion.

Grief work and letting go. Parental separation and divorce involve loss. One set of relationships and one pattern of family organization is lost and replaced by another. For children whose father or mother moves out of the family home, this may be experienced as 'losing their daddy or mummy'. For parents, the loss is of a partner, a role and a way of life. In response to these losses, family members typically experience some of the following grief processes over an extended period of time which may last up to about two years in their most intense form:

- shock at first hearing of the separation
- denial or disbelief
- bargaining about making changes so that the family may be reunited
- anger at others for causing the separation
- guilt for having caused the separation
- yearning and searching for the person who has left or the old form of family organization
- depression and sadness about the loss

- anxiety about abandonment by family members
- anxiety about the reaction of others (peers and extended family) to the separation
- despair and hopelessness about surviving without the family as it was
- relief that the separation has put an end to the constant conflict
- acceptance that the separation has occurred.

These grief processes typically begin with shock and end with acceptance but beyond that there is marked variability in the patterning of these reactions. A fuller description of grief and loss is given in Chapter 24.

Grief work involves acknowledging the reality of the loss of the family as it was and modifying one's worldview so that it takes account of the loss. These aims may be achieved by reviewing repeatedly and in detail life as it was before the separation and life as it is now and will be following the separation, and experiencing in full all of the intense and painful emotions that are aroused by this. The role of the clinician is to help family members do this grief work at their own pace and within a context that they find most supportive. For example, many adults prefer to do this work within the context of an individual counselling relationship or with a group of peers who are going through the same loss experience. Some children may find that they can work through these issues best with their siblings and custodial parent. Others find that an individual counselling or support group context is more suitable.

Anniversary grief reactions are commonplace in families where separation has occurred. Family members may need to be alerted to this possibility and also provided with invitations to return for additional sessions at anniversaries if further grief counselling is desired at these times.

Child custody evaluations

In child custody evaluations conducted after parental separation, the central question typically concerns the optimal custody and visitation environment for children. The aim of assessment in these cases is to establish what custody and visitation arrangements parents and children would prefer, and ultimately what arrangements would be in the best interest of the children. Child custody evaluations typically begin with a contracting meeting in which a schedule of appointments and fees is agreed. Contracting in child custody cases is particularly important, since adherence to the assessment contract is one indicator of parents' capacity to meet their children's need for a co-operative parenting environment. A child custody evaluation should typically include individual and conjoint interviews with both parents, the involved children, and relevant members of the extended family. Home visits in which parent–child interaction is observed should also be conducted to assess some aspects of parenting capacity. Observations of children interacting with each parent in a set of similar situations, such as mealtimes, free play and supervising homework, should be conducted (Saini & Polak, 2014). Where appropriate, school reports and reports from other involved professionals should be obtained. Written consent must be obtained to contact members of the extended family, the school, and other involved professionals such as psychiatrists or probation officers. It is also important to keep detailed notes of all contacts and list these in the final court report. A useful set of standard contracting and information collecting forms for conducting custody evaluations has been developed by Munsinger and Karlson (1996) and Lampel et al. (2005), described in Table 23.2. Standards for conducting custody assessments have been developed by various professional bodies including the American Psychological Association (2010), the American Academy of Child and Adolescent Psychiatry (1997c) and the American Psychiatric Association (1988). Ackerman (2006), Gould and Martindale (2007) and Stahl (2010) have written useful clinical manuals for custody assessments. Research relevant to custody evaluations has been summarized by Galatzer-Levy et al. (2009) and Kuehnle and Drozd (2012).

In assessing the custody arrangement that would be in the best interests of the child, the areas listed in the assessment framework presented in Table 23.3 should be covered, at a minimum. First, the child's wishes and the wishes of each parent concerning custody requires assessment. In light of this, the degree of agreement between parties and the level of parental conflict may be assessed. At one extreme, there are situations where each parent wants sole custody. At the other extreme, there are situations where considerable agreement about custody and childcare is present. In some such instances, joint custody may be the best alternative. For this type of recommendation to be made, the parents must display the psychological skills necessary to prevent their negative feelings about each other, as marital partners, from interfering with their effective joint parental care of their children. Thus they must make a conceptual distinction between the marital relationship and the co-parental relationship. Making this distinction allows them to control their anger towards their spouse as a marital partner who has let them down, so that they may work co-operatively with their ex-spouse to care for the children. This involves the parents giving priority to the child's needs for a co-operative parental environment over their own needs to engage in continued conflict with each other. Where parents are capable of this, they typically show in joint interviews that, despite their mixed feelings or anger towards each other, they can communicate and negotiate once the focus of concern is the children's welfare. They also demonstrate that they can make flexible arrangements about shared childcare responsibilities and follow thorough on these without the child being triangulated. A summary of the criteria for making decisions about joint custody is set out in Table 23.4.

Where there is disagreement between parents about custody arrangements, the decision about what is in the child's best interests must be based on evaluation of each of the parent's capacities to meet the child's needs for safety, care, control and education. Factors that may have a bearing on these capacities are set out in Table 23.5. With respect to safety, a central concern is whether the parent is at risk for abusing the child. A history of violence, spousal abuse or any form of child abuse is a strong indicator that the parent may have difficulty meeting the child's needs for safety. Where there is a suspicion of child abuse, a thorough assessment following the sets of guidelines set out in Chapters 19–21 should be conducted. Where parents are clearly unable to meet their children's needs for safety, then it should be recommended that the other party be given custody. However, in any case where the child construes one parent as 'all good' and the other as 'all bad' with no suggestion of any attachment or loyalty to that parent, parent alienation syndrome (Gardner, 1998) described in the next section, should be considered.

Table 23.3 Areas requiring assessment for custody evaluation

Adherence to contract	Degree of agreement with initial contract for custody evaluation (including appointment schedule, conditions, and fees where appropriate)
	Degree to which parents complied with contract
Expressed wishes	Children's wishes
	Parents' wishes
Joint custody criteria	Degree of parental agreement about current and future custody arrangements and capacity to negotiate about this
	Parents' capacity to give children's needs priority and co-operate with spouse
Parenting capacity	Parents' capacity to meet children's need for safety
	Parents' capacity to meet children's need for physical and emotional care (food and shelter, attachment, empathy, understanding and emotional support) and parent's attachment to children and goodness-of-fit with children
	Parents' capacity to meet children's need for control (clear limits, supervision and appropriate rewards and sanctions) and to manage conduct problems without violence. This covers parents' discipline style and conflict resolution style.
	Parents' capacity to meet children's need to learn academic and life skills (age-appropriate intellectual stimulation, schooling, age-appropriate responsibilities and a clear role model)
	Parents' capacity to meet children's need to maintain relationships with and attachment to both parents and to negotiate about access visits, etc.
	Parents' capacity to meet any of their children's special needs arising from sensory, motor or intellectual disabilities or illnesses
	Parent's capacity to create opportunities for children to have access to

	religious practices without becoming triangulated into parental conflicts over religion
	Parent’s capacity to create opportunities for children to have access to ethnic and cultural practices without becoming triangulated into parental conflicts over these
	Child’s current, past and projected behavioural adjustment in each parent’s house and neighbourhood
Child’s adjustment	Child’s current, past and projected future adjustment at school
	Child’s current, past and potential future relationships with siblings
	Child’s current, past and potential future relationships with extended family
	Parents’ personal strengths including personal flexibility; planning and problem-solving skills; and skills for coping with demands of family life and work
	Parents’ history of violence, child or spouse abuse or potential for future violence
Parental adjustment	Parents’ psychological or physical adjustment problems that may compromise capacity to meet children’s needs including immaturity, substance misuse, mental health problems, physical illness, physical disability and intellectual disability
	Parents’ financial situation and work schedule which impact on their capacity to meet children’s physical needs and children’s need for parental availability

Table 23.4 Criteria for deciding for or against joint custody

Criteria for recommending joint custody	*Criteria for recommending against joint custody*
The parents want a joint custody arrangement	One or both parents do not want a joint custody arrangement
The parents have the psychological skills necessary to prevent their negative feelings about each other as marital partners from interfering with their effective joint care of their children	One or both parents lack the psychological skills necessary to prevent their negative feelings about each other as marital partners from interfering with their effective joint care of their children
The parents give priority to the children’s needs for a co-operative parental environment over their own needs to engage in continued conflict with each other	One or both parents are intensely angry and give priority to their need to express this anger over their children’s needs for a co-operative parental environment
The parents can communicate and negotiate with each other	The parents disagree about child rearing
The parents can make flexible	The parents live 100 or more miles apart

arrangements about shared childcare responsibilities

Table 23.5 Criteria for deciding for or against custody as being in the best interests of the child

Criteria for recommending custody	*Criteria for recommending against custody*
	The parent is less well able than his or her partner to meet the child's needs for • safety • care • control • education
	The children prefer not to live with the parent
The parent can meet the child's needs for • safety • care • control • education	Living with the parent would disrupt the continuity of their current living arrangements
The children prefers to live with the parent	Living with the parent would involve them leaving their present school and separation from their present peer group (except where their school or peer-group environment is problematic)
The custody arrangement allows children a minimum of disruption and a maximum of continuity in their living arrangements	The parent is not the children's primary caretaker
The custody arrangement permits children to remain in their present school and with their present peer group (except where their school or peer-group environment is problematic)	The parent cannot meet the children's special needs associated with youthfulness or disability
The parent is the children's primary caretaker	Siblings would be separated
The parent can meet the children's special needs associated with youthfulness or disability	Support from the extended family would not be available
Siblings remain together	The children have not previously shown good adjustment within the parent's home
Support from the extended family is available	There is a lack of attachment between the parent and children which prevents the parent from meeting the children's needs
The children has previously shown good adjustment within the custodial parent's home	There is a lack of goodness-of-fit between the parent and children which prevents the parent from meeting the children's needs
	The parent is unable to meet the child's needs as a result of immaturity, substance misuse, mental health problems, physical illness, physical disability or intellectual disability

	The parent has engaged in child or spouse abuse and/or poses a threat of physical, emotional or sexual abuse or neglect to the child

Parents' ability to meet children's needs for care should include a consideration of their capacity to plan sufficiently well to provide basic food and shelter. It should also address the degree of attachment between parents and children; the goodness-of-fit between the children's temperaments and parents' expectations and abilities to cope with the children's demands; and the capacity of parents to empathize with children and understand their point of view. In particular it is important to assess the degree to which parents know how difficult it is for children to feel divided loyalties.

With respect to children's need for control, parental capacities to set clear limits and rules of conduct; to monitor and supervise the degree to which children conform to these expectations; and to offer appropriate rewards and sanctions should be assessed. Extremely lax or neglectful parenting or highly punitive parenting are both detrimental to child development. Between these extremes, a range of approaches to parenting may meet the children's needs for control.

Parents' capacity to meet children's needs to learn academic and life skills also requires assessment. With infants and toddlers this involves providing age-appropriate intellectual stimulation. With school-going children it involves requiring children to meet age-appropriate responsibilities within the home, the school and the community. Providing children with a clear role model is another important aspect of meeting the child's need to learn life skills.

A variety of factors that may compromise parents' capacities to meet their children's needs deserve assessment also, especially psychological adjustment problems and physical illness. Common psychological adjustment difficulties requiring routine screening include excessive impulsivity (associated with borderline personality disorder), conduct problems (associated with anti-social personality disorder), substance misuse, mood disorders, anxiety disorders and psychosis.

Where parents are equally placed with respect to parenting skills, other factors may be taken into account when making custody recommendations. Custody arrangements that take account of children's preferences; arrangements that entail a minimum of disruption and a maximum of continuity in children's home and school placement and routines; arrangements that permit siblings to stay together; and arrangements that maximize support from the extended family, the school and the peer group are all preferable. Custody with a parent is preferable where the child has previously shown good adjustment within the custodial parent's home; where a parent is the child's primary caretaker; and where a parent is particularly well equipped to meet a child's special needs associated with youthfulness or disability.

In writing a court report outlining the results of a child custody evaluation, the following structure may be used:

- name, qualifications and experience of clinical psychologist conducting the assessment
- names, dates of birth, and addresses of children and parents
- date on which the report was written
- sources on which the report is based (list of interviews conducted indicating dates and people interviewed, parent–child observation sessions indicating people present, dates and locations; lists of psychological tests administered; and list of other reports reviewed)
- circumstances of referral
- relevant family history
- mother's adjustment, adherence to assessment contract and parenting skills
- father's adjustment, adherence to assessment contract and parenting skills
- children's adjustment and custody preferences
- factors for and against joint custody
- factors for and against paternal custody
- factors for and against maternal custody
- recommendations.

Guidelines on testifying in court in child custody cases are presented in Munsinger and Karlson (1996). A Developing Witness Skills pack is available from the British Psychological Society which gives guidance on presenting expert testimony in court and managing cross-examination (BPS, 1996).

The parental alienation syndrome

The parental alienation syndrome (PAS) is a construct over which there is considerable controversy (Bond, 2008; Lorandos et al., 2013; Meier, 2009). Despite much lobbying, because of limited scientific evidence for the construct it is not included as a syndrome in recent revisions of the DSM or ICD classification systems (Bernet & Slovenko, 2010). It will be some time before the scientific and clinical community reaches a consensus on PAS, but in the meantime it is important for clinical psychologists in training to be aware of the construct. Gardner (1998) argues that PAS is a psychological disorder which children develop in the course of child custody disputes. With PAS, the child denigrates the alienated parent without justification in response to programming, brainwashing, and indoctrination by the other parent. This denigration may range from mild animosity, through moderate disrespect, to severe violence and fabrication of accusations of abuse and neglect against the target parent. The alienating parent's reason for brainwashing the child to denigrate the target parent is to gain leverage in court. The child is motivated to denigrate the target parent by a fear of being rejected by the other parent for not doing so. Children with PAS meet the following criteria:

1. They engage in a campaign of denigration.
2. They may offer weak, frivolous, or absurd rationalizations for the deprecation.
3. They show a lack of ambivalence in their relationships with their parents viewing one as ‘all good’ and the other as ‘all bad’.
4. They insist that they have not been brainwashed by the other parent but have developed their hatred of one parent independently.
5. They show reflexive support for the alienating parent in the parental conflict.
6. They show an absence of guilt over cruelty to and exploitation of the alienated parent.
7. They use age-inappropriate language and scenarios repeated almost verbatim borrowed from the alienating parent in their campaign of denigration against the targeted parent.
8. They spread their animosity to friends and extended family members.

An important clinical issue is to determine whether allegations of mistreatment of the child by the targeted parent reflect actual child abuse of a fabricated account reflective of PAS. To make this differential diagnosis it is important to assess youngsters for abuse and neglect. Children who have been abused or neglected report the experience in age-appropriate language. In cases of actual abuse or neglect there is usually evidence of personal and contextual predisposing risk factors; triggering factors for each episode; and maintaining factors for the duration of the abuse as outlined in Chapters 19–21. It is probably difficult to establish the presence of absence of such factors in cases of PAS. Working therapeutically with families in which alienation has occurred is a complex process. Evidence-based approaches have not yet been developed, although some useful clinical approaches have been described (Baker & Sauber, 2013). Gardner’s proposals of awarding sole custody to the alienated parent, ‘deprogramming’ the alienated child and denying the child access to the other parent as a solution to the problem of PAS have been widely criticized (Meier, 2009).

Mediation

While conducting custody evaluations and providing therapy for children’s post-separation adjustment problems are the principal services that clinical psychologists typically offer to families where separation has occurred, increasingly psychologists are becoming involved in divorce mediation. Divorce mediation (or conciliation) is a structured approach to negotiating agreements about childcare and financial issues where marital partners are separating

(Benjamin & Irving, 1995; Emery, 2012; Emery et al., 2005; Folberg et al., 2004; Lowenstein, 2009; McKnight & Erickson, 2008). Mediation is a co-operative alternative to adversarial litigation which can lead to settlements in a large percentage of cases. In most instances mediation is far less stressful for children. It may be conducted by a clinical psychologist (with special mediation training) or by a psychologist and lawyer team. When mediation and litigation are compared, mediation is more efficient and effective in leading to initial agreements about childcare arrangements and finances. It is also far quicker and less costly to the family and the state. Mediation may also lead to better long-term co-operation between partners in managing children and better parent–child relationships, especially for non-resident parents. The key "active ingredients" of mediation include helping parents to establish a business-like relationship and avoid triangulation of children into their conflict, acknowledging the significance of underlying emotional issues, and facilitating long-term parental co-operation. However, mediation is not designed to therapeutically ameliorate short-term psychological distress and adjustment problems associated with divorce. Guidelines on how to conduct mediation are presented in Emery (2012), Folberg et al. (2004) and McKnight and Erickson (2008).

Summary

Separation and divorce are no longer considered to be aberrations in the normal family lifecycle but rather normative transitions for between one-third and one-half of all families. Difficulties with communication and intimacy on the one hand and the power balance or role structure of the marriage on the other are the two major reasons for separation. Prior to separation, a negative cognitive style coupled with and an increase in negative interactions lead to growing negative feelings for both partners. Partners become isolated from each other and begin to live parallel lives. Economic difficulties are a primary reason for women not divorcing, while men give primacy to the fear of separation from their children. Parental adjustment to divorce is influenced by a range of risk and protective factors. The stresses and strains of residential changes, economic hardship, role changes and consequent physical and psychological difficulties associated with the immediate aftermath of separation and divorce may compromise parents' capacity to co-operate in meeting their children's needs for supportive relationships with each parent and clear, consistent discipline from both parents. For the 2-year period immediately following divorce, most children show some adjustment problems. About 1 in 4 children of divorced parents show serious long-term psychological problems, a figure which does not differ markedly from the prevalence of psychological problems in community surveys. Children with significant long-term, post-divorce psychological problems typically have a profile characterized by many risk factors and few protective factors. Family transformation through separation, divorce and re-marriage may be conceptualized as a process involving a series of stages. Failure to complete tasks at one stage, may lead to adjustment problems for family members at later stages. When families present with post-separation adjustment difficulties, a multi-systemic intervention package based on a thorough assessment and formulation is the management approach of choice. Such intervention programmes should contain some of the following elements: psychoeducation; clarifying family routines and roles; arranging cross-household consistency in parenting; parenting skills training; facilitating support for the child from the school and the extended family; providing support for parents and children; and facilitating grieving. In child custody evaluations, the central question typically concerns the best parenting environment for the child. A child custody evaluation should typically include individual and conjoint interviews with both parents, the involved children and relevant members of the extended family, along with observation of parent–child interaction during home visits and reviews of other relevant professional reports. The decision about what is in the child's best interests must be based on evaluation of each parent's capacity to meet the child's needs for safety, care, control and education and factors that have a bearing on these capacities. Parental alienation is a controversial construct describing an extreme pattern of post-divorce triangulation where a particularly negative relationship develops between a child and non-custodial parent. Divorce mediation is a brief structured alternative to litigation with many benefits for separated families.

Exercise 23.1

Laura (aged 9) and Betty (aged 12) are referred for psychological consultation because they are both very tearful at school and are not sleeping well. They also refuse to speak to their mother's new partner, John. The mother, Nancy, has been seeing John regularly for 6 months. He lives in his own apartment but sleeps over at Nancy's house about 50% of the time. The children stay with their father Louis on 3 days (Friday, Saturday and Sunday) one week and 4 days the next (Monday, Tuesday, Wednesday and Thursday). Nancy and Louis are still very angry at each other. Louis blames Nancy for the separation. He says she did not support his career in building construction. He makes his views known to the girls regularly. Nancy blames Louis for infidelity and for never being available to help with the children. She lets the children know her views regularly. The children have remained at the same school which has a primary and secondary section since the separation two and a half years ago.

Write a formulation for this case and a plan for assessment and speculate on what components might be included in a treatment programme.

Role-play preliminary interviews with (1) the children, (2) Nancy and John and (3) Louis.

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Papernow, P. (2013). *Surviving and thriving in stepfamily relationships: what works and what doesn't*. New York: Routledge.

Sharry, J., Reid, P., & Donohoe, E. (2001). *When parents separate: Helping your children cope*. Dublin: Veritas.

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Visher, E., & Visher, J. (1999). *How to win as a step-family* (2nd ed.). New York: Routledge.

Websites

Divorce mediation website: http://www.mediationmatters.com/recommended_website.php

Divorce Source: http://www.divorcesource.com

Mediation website: http://www.mediate.com/

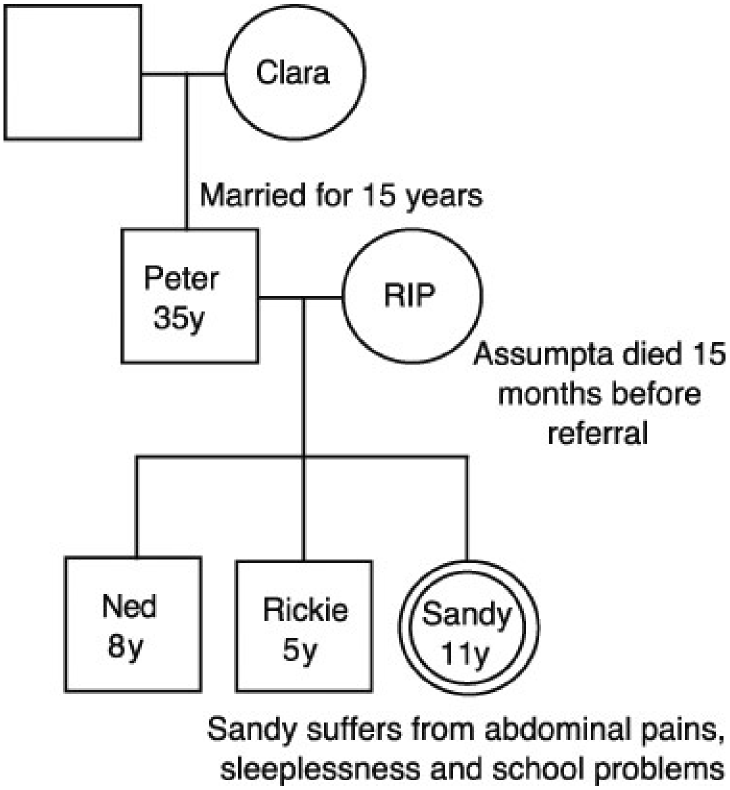
Chapter 24

Grief and bereavement

Psychological consultation to children and families, where the child's adjustment to bereavement or a life-threatening condition is the central concern, is examined in this chapter. Bereavement is an inevitable part of the lifecycle. During childhood and adolescence most children experience the death of a family member or friend and manage the process of grieving satisfactorily. However, in some circumstances bereavement impairs the child's adjustment to a marked degree or the young person's grief reactions do not conform to the expectations of significant members of their social network, particularly their parents (Black, 2002; Black & Trickey, 2009; Corr & Balk, 2010; Dyregrov, 2008; Kissane & Bloch, 2002; Rosner et al., 2010; Smith & Pennell, 1996; Stroebe et al., 2001, 2008, 2013; Walsh & McGoldrick, 2004; Webb, 2010; Worden, 2008). Such expectations may be coloured by parents' own grief reactions and also by popular misconceptions about grief. Thus, both the child's behavioural reactions following bereavement and expectations of significant others may prompt a referral for psychological consultation. An example of such a routine referral is presented in Box 24.1. Children may also be referred for psychological consultation when they have been diagnosed with life-threatening injury or illness, such as terminal cancer (Black, 1994; Brown & Warr, 2007; Gerhardt et al., 2009; Wolfe et al., 2011). Children's adjustment to bereavement or life-threatening medical conditions is in part dependent upon their understanding of the concept of death. This chapter will begin, therefore, with a discussion of the development through childhood and adolescence of the concept of death. This will be followed by a description of grief processes, a review of theoretical explanations for these processes and a summary of the available evidence on types of grief reactions. A framework for conceptualizing the wide variety of factors that influence grief reactions will then be given. The assessment and management of cases where grief is a central issue will then be presented.

Box 24.1 A case study on bereavement

Sandy was an 11 year old girl referred in February because of abdominal pains, sleeplessness and school problems. She was falling behind in her schoolwork and had become increasingly isolated from her peer group over the preceding few months. A paediatric examination showed that the abdominal pains were not due to clearly identifiable organic factors. Sandy lived with her father, Peter, and two younger brothers, Ned (8 years) and Rickie (5 years). Sandy's mother, Assumpta, had died about 15 months previously following a lengthy battle with cancer. Assumpta had died peacefully in her husband's arms. The children attended the funeral and Peter's mother, Clara, who lived nearby, had helped to care for the three children in the wake of Assumpta's death. Over the next year, Sandy was the best adjusted of the three children. The two boys became defiant and aggressive and posed a great challenge for Peter and his mother to manage. Sandy, however had been tearful and sad for some months but never troublesome. Peter, had buried himself in his work for much of the year but recently on the advice of the GP had begun to play tennis regularly and had begun to socialize again. The whole family, who were Roman Catholic, had attended the anniversary Mass 3 months prior to the referral; following this, Sandy had become very tearful and despairing. Over the subsequent 3 months she had distanced herself from her peers at school and left the hockey team. She criticized her father for his attempts at developing a social life. Periodically, she developed stomach aches for which no organic cause could be found and on occasion her father had been recalled from work or tennis to take Sandy to the family doctor. Sandy occasionally had dreams in which she and her mother were together again.



Epidemiological issues

Children suffer a wide variety of losses, of which parental death is probably the most traumatic and painful. In Western countries about 4% of children under 18 lose a parent by death (Black & Trickey, 2009; Dyregrov & Dyregrov, 2013). In industrialized countries the principal causes of premature parental death are cancer, heart disease and road traffic accidents. In developing countries HIV/AIDS is a major cause of premature parental death, and more parents die as a result of war and both natural and man-made disasters than in industrialized countries. The death of a parent affects children's physical and mental health (Dyregrov & Dyregrov, 2013). Parental bereavement usually leads to transient psychological adjustment problems including internalizing and externalizing behaviour problems, somatic complaints, school performance difficulties and relationship problems within the family, school and peer group. Internalizing behaviour problems are more common in girls and externalizing behaviour problems in boys. In about 20% of cases significant mental health problems may persist for more than a year after the death of a parent. Death of a parent in childhood is a risk factor in adulthood for higher rates of depression, physical health problems and mortality.

Among children, the principal causes of death are peri-natal complications, congenital abnormalities, accidents, respiratory conditions, and cancer (Black, 1994; Gerhardt et al., 2009). About 25% of children with cancer die of their disease, and so they and their families must cope with the anticipatory grief of this eventuality (Hurwitz et al., 2004; Wolfe et al., 2011). Advances in modern medicine have increased the survival rate for life-threatening illnesses such as cancer or renal failure. While many children survive into adulthood, for a significant minority the prolongation of life through intensive medical care takes its toll. Before the advent of modern sophisticated medical techniques, these children and their families would have been exposed to the acute trauma of a relatively sudden childhood death. Now, they are exposed to the chronic stress of living in the shadow of death. In many instances children die not from the disease process but from complications associated with their medical treatment. Where children survive, they and their families must find a way to live with the side effects of treatment which may include disfigurement, frailty, limited autonomy and sterility. It is therefore not surprising that the lifetime prevalence rate for post-traumatic stress disorder (PTSD) is 20.5–35% for childhood cancer survivors and 27–54% for their parents (Bruce, 2006).

Development of death concept

Much of the work on the development of the concept of death has been guided by Piagetian theory which argues that the child's concept of death is constrained by the availability of certain cognitive skills (Corr, 2010; Kenyon, 2001; Spence & Brent, 1984; Stambrook & Parker, 1987). According to Piagetian theory, the pre-operational child (under 7 years) should not be able to understand the irreversibility of death and may confuse it with sleep. Also, pre-operational children's inability to distinguish thought and action may lead them to hold beliefs such as their anger towards someone caused them to die. Once children reach the concrete operational stage, according to Piagetian theory, they understand the irreversibility of death but they may have difficulty accepting its universality, and so may not be able to conceptualize death as something that will happen to them. Rather they may view it as being confined to the old, the frail and those in apparent danger. With the onset of the formal operational period in early adolescence, the universality of death comes to be fully appreciated. That is, according to Piaget, young teenagers realize that they will die.

Empirical studies show that the evolution of the concept of death follows the broad pattern suggested by Piaget but there are many exceptions, and this is because children's concept of death evolves not only as cognitive maturation occurs but also as experience of death broadens (Corr, 2010; Kenyon, 2001; Spence & Brent, 1984; Stambrook & Parker, 1987). The key features of death may be appreciated by children during the pre-operational stage, provided they have been exposed to particular death-related experiences such as having a terminal illness or having experienced multiple bereavements. These key features include the irreversibility of death, which entails the view that the dead cannot return to life; the universality of death, which entails the view that all creatures die; and the functionality of death, which entails the view that all functions cease at death. While most adolescents recognize the inevitability of their own death at a cognitive level, the full emotional significance of this is not apprehended until adulthood, unless multiple bereavements or other traumatic events occur. In a survey of over 400 adults, Kalish and Reynolds (1976) found that the number of people who emotionally accepted the inevitability of their own death increased as a function of age. In early adulthood 36% of respondents accepted that they would inevitably die. In middle adulthood the figure rose to 52% and in later adulthood 71% accepted the inevitability of their own death.

Grief processes, response patterns and adjustment problems

For children, following bereavement or during the course of a life-threatening illness there is considerable variability in grief processes, response patterns and related adjustment difficulties (Black, 2002; Black & Trickey, 2009; Dyregrov & Dyregrov, 2013). Some children manage the death of a parent or sibling or their own impending death with considerable courage and resilience, whereas others do not. Within Western culture, the normative expectation is for people who have experienced significant loss to show extreme initial distress which declines with time. However, this is just one of a number of patterns seen in clinical practice. Children may show

- protracted grief reactions with marked sadness, longing and preoccupation
- extreme denial and apparent absence of grief
- delayed grief, where intense grief reactions occur a considerable time after the loss
- grief in which anger, anxiety or somatic complains rather than sadness are the primary features
- traumatic grief reactions, following the traumatic loss of a parent or other family member, in which grief process occur coupled with PTSD symptomatology.

These deviations from normative expectations are often referred to as complicated grief. In DSM-5 (APA, 2013), one of the these patterns – prolonged grief reaction – has been included as a new diagnostic category warranting further study. Diagnostic criteria for this persistent complex bereavement disorder are given in Table 24.2. There is a lack of consensus within the field about the validity of this category. One difficulty with this new proposed category is that it reflects only one of a number of complicated grief reactions shown by children referred for psychological treatment. Complicated grief reactions may lead to referral because they deviate from cultural expectations. There is also some evidence that children adjust to bereavement and life-threatening illness more quickly than adults, so in some instances, children who have completed their grief work more rapidly than their parents may be referred for assessment because of their apparent failure to grieve.

Following bereavement or during adjustment to life-threatening illness, children may be referred for psychological consultation because they display one or more highly salient adjustment difficulties. These include internalizing or externalizing behaviour problems; somatic complaints such as stomach aches; poor adherence to medical regimes; school problems; and relationship difficulties within the family, school or peer group. All of these types of problems typically reflect the child's involvement in one or more of the following grief processes:

- shock
- denial or disbelief
- yearning and searching
- sadness
- anger
- anxiety
- guilt and bargaining
- acceptance.

There is not a clear-cut progression through these processes from one to the next (Black, 2002; Black & Trickey, 2009; Corr & Balk, 2010; Dyregrov, 2008; Dyregrov & Dyregrov, 2013; Kissane & Bloch, 2002; Silverman & Worden, 1993; Smith & Pennell, 1996; Stroebe et al., 2001, 2008, 2013; Walsh & McGoldrick, 2004; Webb, 2010; Worden, 2002; Wortman & Silver, 1989, 2001). Rather, at different points in time, one or another process predominates when a child has experienced a loss or faces death, and there may be movement back and forth between processes.

Shock is the most common initial reaction, and it can take the form of physical pain, numbness, apathy or withdrawal. The child may appear to be stunned and unable to think clearly. This may be accompanied by denial, disbelief or avoidance of the reality of the bereavement, a process that can last minutes, days, or even months. During denial children may behave as if the dead person is still living, albeit elsewhere. Thus, the child may speak about future plans that involve the deceased. Terminally ill children may talk about themselves and their future as if they were going to live through until old age.

A yearning to be with the deceased, coupled with disbelief about their death, may lead the child to engage in frantic searches for the dead person, wandering or running away from the home in a quest for the person who has died. The child may phone relatives or friends trying to trace the person who has died. During this process children who have lost family members or very close friends report seeing them or being visited by them. Some children carry on full conversations with what presumably are hallucinations of the deceased person. Mistaking other people for the deceased is also a common experience during the denial process. Children may be referred for psychological assessment because of denial-related behaviours such as running away or insisting that they can see and hear the dead person. With terminally ill children, the yearning for health may lead to a frantic search for a miracle cure and to involvement in alternative medicine.

When denial gives way to a realization of the irreversibility of the death the child may experience profound sadness, despair, hopelessness and depression. The experience of sadness may be accompanied by low energy, sleep disruption, a disturbance of appetite, tearfulness, an inability to concentrate and a retreat from social interaction. The child's experience is expressed in the sentiment, 'I am lost and lonely without you.' Young children experiencing the despair process may regress and begin to behave as if they were a baby again, wetting their beds and sucking their thumbs, hoping that by becoming a baby the dead person may return to comfort them. This type of wish reflects the magical thinking of the pre-operational child. Regressed behaviour or depressed mood may precipitate a referral for psychological consultation. With children who are terminally ill, despair, hopelessness and depression finds expression in an unwillingness to fight the illness.

Complementing the despair process, there is also an anger process which, for bereaved children, may be expressed in the sentiment, 'I am angry because you abandoned me forever.' Temper tantrums, misbehaviour, defiance, delinquency, drug and alcohol abuse, refusal to go to school or to complete schoolwork are some of the common ways that grief-related anger finds expression in children and teenagers. All of these troublesome behaviours may lead the youngster to be referred for psychological assessment. With children who are suffering from terminal illness, the anger may be projected on family members, members of the medical team, friends or teachers, and conflicts in these relationships in which intense anger is expressed may occur. This often involves an angry refusal to adhere to medical regimes, to take medication or to participate in physiotherapy.

The expression of such anger may often be followed by remorse or fear of retribution. Young children may fear that the deceased person will punish them for their anger, and so it is not surprising that they may want to leave the light on at night and may be afraid to go to bed alone. In older children and adolescents, anxiety is attached to reality-based threats. So, children who have lost a friend or family member through illness or an accident may worry that they too will die from similar causes. This can lead to a belief that one is seriously ill and to a variety of somatic complains such as stomach aches and headaches. It may also lead to a refusal to leave home lest a fatal accident occur. Referral for assessment of separation anxiety, recurrent abdominal pain, headaches, hypochondriasis and agoraphobia my occur in these cases. The guilt process is marked by self-blame for causing or not preventing the death of the deceased. There may also be thoughts that if the surviving child died this might magically bring back the deceased. Thus the guilt process may underpin suicidal ideation or self-injury which invariably leads to referral for mental health assessment. With children who are terminally ill, the illness may be experienced as a punishment for having done something wrong. This sense of guilt underpins the bargaining process in which many youngsters facing death engage. The bargaining process is reflected in the sentiment, 'If you let me live, I promise to be good.'

The final grief process is acceptance. With bereavement, the child reconstructs their view of the world so that the deceased person is construed as no longer living in this world, but a benign and accessible representation of them is constructed which is consistent with the family's belief system. For example, a Christian child may imagine that their parent is in heaven and looking down on them in a protective way. Most children maintain a relationship with this representation of the deceased through the use of symbols and rituals. So children may regularly look at photographs, gifts and belongings of the deceased. They may regularly visit the grave or a place of special significance and carry on imaginary dialogues with the deceased. For terminally ill children, the acceptance involves a modification of the worldview so that the future is foreshortened and therefore the time remaining is highly valued and is spent living life to the full rather than searching in vain for miracle cure.

For the bereaved child, new lifestyle routines are evolved as part of the process of accepting the death of a parent or other loved one. The child's family system and broader social network is re-organized to take account of the absence of the deceased person. If children have been well supported during the early stages of grief they may show increased maturity, psychological strength and post-traumatic growth once they take steps towards acceptance

(Michael & Cooper, 2013). Children who lose friends or siblings through death may become more compassionate and understanding. Those that lose a parent may become more responsible and helpful in the management of the household. For terminally ill children, once the child and family accept the inevitability of the child's imminent death, routines which enhance the quality of life of the dying child may be evolved.

A summary of the grief processes and related adjustment problems that may lead to referral is presented in Table 24.1.

Table 24.1 Behavioural expressions of themes underlying children's grief processes following bereavement or facing terminal illness that may lead to referral

	Bereavement		*Terminal Illness*	
Grief process	• **Underlying theme**	• **Behavioural expressions of grief processes that may lead to referral**	• **Underlying theme**	• **Behavioural expressions of grief processes that may lead to referral**
Shock	• I am stunned by the loss of this person	• Complete lack of affect and difficulty engaging emotionally with others • Poor concentration and poor schoolwork	• I am stunned by • my prognosis and loss of health	• Complete lack of affect and difficulty engaging emotionally with others • Poor concentration and poor schoolwork
Denial	• The person is not dead	• Reporting seeing or hearing the deceased • Carrying on conversations with the deceased	• I am not terminally ill	• Non-compliance with medical regime
Yearning and searching	• I must find the deceased	• Wandering or running away • Phoning relatives	• I will find a miracle cure	• Experimentation with alternative medicine
	• I am sad,	• Persistent low mood,		• Giving up the fight against illness • Persistent low

Sadness	hopeless and lonely because I have lost someone on whom I depended	tearfulness, low energy and lack of activity • Appetite and sleep disruption • Poor concentration and poor schoolwork	• I am sad and hopeless because I know I will die	mood, tearfulness, low energy and lack of activity • Appetite and sleep disruption • Poor concentration and poor schoolwork
Anger	• I am angry because the person I needed has abandoned me	• Aggression, tantrums, defiance, delinquency • Conflict with parents, siblings, teachers and peers • Drug or alcohol abuse • Poor concentration and poor schoolwork	• I am angry because it's not fair • I should be allowed to live	• Non-compliance with medical regime • Aggression, tantrums, defiance, delinquency • Conflict with medical staff, parents, siblings, teachers and peers • Drug or alcohol abuse • Poor concentration and poor schoolwork
Anxiety	• I am frightened that the deceased will punish me for causing their death or being angry at them • I am afraid that I too may die of	• Separation anxiety, school refusal, regressed behaviour, bedwetting • Somatic complaints, hypochondriasis and agoraphobia associated with a fear of accidents	• I am frightened that death will be painful or terrifying	• Separation anxiety and regressed behaviour

	an illness or fatal accident	• Poor concentration and poor schoolwork		
Guilt and bargaining	• It is my fault that the person died so I should die	• Suicidal behaviour	• I will be good if I am allowed to live	• Over-compliance with medical regime
Acceptance	• I loved and lost the person who died and now I must carry on without them while cherishing their memory	• Return to normal behavioural routines	• I know that I have only a short time left to live	• Attempts to live life to the full for the remaining time

Table 24.2 DSM-5 proposed criteria for persistent complex bereavement disorder

A. The individual experienced the death of someone with whom he or she had a close relationship.

B. Since the death, at least one of the following symptoms is experienced on more days than not and to a clinically significant degree and has persisted for at least 12 months after the death in the case of bereaved adults and 6 months for bereaved children:

1. Persistent yearning/longing for the deceased. In young children, yearning may be expressed in play and behaviour, including behaviours that reflect being separated from, and also reuniting with, a caregiver or other attachment figure.
2. Intense sorrow and emotional pain in response to the death.
3. Preoccupation with the deceased.
4. Preoccupation with the circumstances of the death. In children, this preoccupation with the deceased may be expressed through the themes of play and behaviour and may extend to preoccupation with possible death of others close to them.

C. Since the death at least six of the following symptoms are experienced on more days than not and to a clinically significant degree, and have persisted for at least 12 months after the death in the case of bereaved adults and 6 months for bereaved children:

Reactive distress to the death

1. Marked difficulty accepting the death. In children, this is dependent on the child's capacity to comprehend the meaning and permanence of death.
2. Experiencing disbelief or emotional numbness over the loss.
3. Difficulty with positive reminiscing about the deceased.

4. Bitterness or anger related to the loss.
5. Maladaptive appraisals about oneself in relation to the deceased or the death (e.g., self-blame).
6. Excessive avoidance of reminders of the loss (e.g., avoidance of individuals, places, or situations associated with the deceased; in children, this may include avoidance of thoughts and feelings regarding the deceased).

Social/identity disruption

7. A desire to die in order to be with the deceased.
8. Difficulty trusting other individuals since the death.
9. Feeling alone or detached from other individuals since the death.
10. Feeling that life is meaningless or empty without the deceased, or the belief that one cannot function without the deceased.
11. Confusion about one's role in life, or a diminished sense of one's identity (e.g., feeling that a part of oneself died with the deceased).
12. Difficulty or reluctance to pursue interests since the loss or to plan for the future (e.g., friendships, activities).

D. The disturbance causes clinically significant distress or impairment in social, occupational, or other important areas of functioning.

E. The bereavement reaction is out of proportion to or inconsistent with cultural, religious, or age-appropriate norms.

(For specifiers, see DSM-5, p. 790.)

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Grief theories

Many theories have been developed to offer a coherent explanation for grief-related processes and complicated grief. Some of the more important conceptualizations of grief are considered in this section. A summary of the key principles of each of these theories is presented in Table 24.3.

Biological theories

Biological conceptualization of grief processes focus on the impact of loss on physiological functioning. In its broadest form the biological hypothesis concerning grief is that individuals faced with the stress of bereavement or a life-threatening illness react with a variety of physiological responses, notably immunosuppression, and this in turn leads to greater mortality and morbidity. Available evidence from studies of children, adults and animals supports this prediction (Dyregrov & Dyregrov, 2013; Hall & Irwin, 2001; O'Conor, 2013; Segerstrom & Miller, 2004).

Table 24.3 Theories of grief

Theories	*Hypothesis*
Biological theories	The stress of bereavement leads to immunosuppression and this in turn leads to greater mortality and morbidity following bereavement.
Psychoanalytic theories	Grief work involves subjecting the fantasy of the deceased continued existence to reality testing and working through the related painful emotions.
Cognitive-behavioural theories	Grief work involves (1) integrating loss into one's life story, (2) identifying and challenging loss-related negative cognitions through cognitive restructuring, (3) engaging in prolonged exposure to loss-related cues and memories without engaging in avoidance strategies or safety behaviours, and (4) engaging in rewarding social activities and expanding constricted lifestyles.
Family systems theory	Bereavement is a normative event in the family lifecycle that requires members of the family to acknowledge the shared experience of loss and to reorganize roles, routines, rules and relationships within the family to take account of the loss. Family adaptation to loss is influenced by the circumstances of the death or loss; the family structure, functioning and lifecycle stage; and the sociocultural context.
Stage theories	Anticipatory grief work (in the case of life-threatening illness) or grief work following bereavement involves movement through a series of invariantly ordered stages. These include an initial stage where denial and anger are central themes; a mid-stage where despair is the core theme; and a final stage where acceptance of the loss occurs.
Psychosocial transition theories	Bereavement is a psychosocial transition where a central task is the modification of one's worldview by reviewing discrepancies between the external world and the assumptive world. Defences and coping strategies are used to pace this process. The ease with which bereavement or loss experiences can be incorporated into one's worldview varies depending upon the worldview itself, the type of loss experience, and the availability of personal and contextual coping resources that can aid the incorporation of the loss into the worldview.
Loss and restoration dual process theory	Adaptive coping following loss involves oscillating between coping with the emotional impact of loss (loss-oriented coping) and coping with the practical issues of developing new routines, roles and relationships (restoration-oriented coping).

Psychoanalytic theory

Freud (1917) argued that following loss of a loved one, there is a tendency to psychologically prolong the existence of the loved one by fantasizing that they continue to live. However, this tendency is combated by the process of reality testing. Where this does not occur, Freud believed that morbid grief reactions may develop and psychotherapy which facilitates grief work is necessary. Each memory and expectation concerning the loved one has to be brought into consciousness, confronted, worked through and tested against the reality of the deceased's absence. Eventually, this grief work leads to detachment from the loved one and the bereaved person is free to become attached to others. Following Freud, Lindeman (1944, 1979), also working within the psychoanalytic tradition, argued that the process of remembering the deceased and working through feelings of loss was optimally achieved gradually, by a process not unlike desensitization. At each step, increasingly more painful memories are recalled and processed until all have been confronted and endured. Results of a small handful of treatment outcome studies show that brief psychodynamic psychotherapy can lead to improved functioning in bereaved adults, but data for children are unavailable (Raphael et al., 2001).

Cognitive-behavioural theories

Early behavioural theories proposed that complicated grief could be conceptualized as a phobia for cues that reminded the child of the deceased. This phobia was maintained by negative reinforcement. That is, avoidance of grief-related cues led to relief and so was more likely to recur. This prevented extinction of the grief reaction. From this perspective, systematic desensitization or flooding was the treatment of choice to help children extinguish their grief reactions to cues that reminded them of the deceased (Ramsay, 1977). This theory failed to take account of many cognitive aspects of complicated grief and has been supplanted by more sophisticated cognitive-behavioural formulations. For example, Boelen et al., (2013) proposed that three processes underpin complicated grief: (1) insufficient elaboration and integration of the loss into autobiographical memory, (2) negative thinking about life without the deceased and catastrophic misinterpretation of grief responses, and (3) anxious and depressive avoidance.

With regard to insufficient elaboration and integration, bereaved children do not actively and explicitly consider and talk about the past, present and future implications of the loss, and integrate it into their life story. As a result, the loss remains disconnected from the rest of their autobiographical memory. Because the deceased person was central to the child's life, many cues elicit memories of them. However, these memories are not integrated into the child's life story. Each time a memory arises, it is as if loss is being experienced as a very recent event. Therefore, in response to multiple cues the child experiences distressing grief-related emotions (shock, sadness, anger, anxiety, etc.). This is similar to the process that occurs in PTSD. Failure to elaborate and integrate the loss into the life story also leads to an inaccurate representation of the child's relationship with the deceased. The child continues to represent the relationship as if the deceased were alive, and so cues that remind the child of the relationship elicit distressing attachment-related emotions and behaviours that are activated when attachment relationships are threatened (for example, anxiety and searching, sadness and crying). Failure to elaborate and integrate the loss into the life story also leads to a confused sense of self. There is a mismatch between the reality of having lost a loved one and an inaccurate view of the self and one's role in the world which is defined as if the loved one were still living. This lack of self-clarity causes distress which motivates the child to yearn for the pre-loss state.

Two categories of negative cognitions maintain complicated grief. The first includes negative cognitions about self, life and the future; for example, 'Without my mother I am worthless; there is no point to life because my mother is dead; I will never be happy again.' The second includes catastrophic misinterpretations of normal emotional reactions to loss. For example, normal sorrow may be misinterpreted as depression, or vivid intrusive memories of the deceased as signs of insanity. Both categories of cognitions exacerbate negative mood states. Catastrophic cognitions also maintain anxious avoidance (described later) and prevent elaboration and integration of memories of the deceased into the child's life story.

Anxious and depressive avoidance maintain complicated grief. Anxious avoidance involves avoidance of external situations and internal memories associated with the deceased. To avoid memories of the deceased, safety behaviours such as distraction or suppression are used. Anxious avoidance brings short-term relief and is maintained by a process of negative reinforcement, as proposed in early behavioural formulations (Ramsay, 1977). However, anxious avoidance maintains complicated grief because it prevents elaboration and integration of loss into the child's life story. Depressive avoidance involves social withdrawal from rewarding social activities. It leads to a constricted lifestyle and depressed mood.

Cognitive-behavioural therapy (CBT) for complicated grief involves helping children to (1) integrate the loss into their life story by considering at length the past, present and future implications of the loss; (2) identify and challenge loss-related negative cognitions through cognitive restructuring; (3) engage in prolonged exposure to loss-related cues and memories without engaging in avoidance strategies or safety behaviours; and (4) engage in rewarding social activities and expand their constricted lifestyle. There is evidence that CBT based on this model is effective with adults who have complicated grief (Boelen et al., 2013) and that trauma-focused CBT (described in Chapter 21) with bereaved, traumatized children alleviates grief and trauma symptoms (Dyregrov & Dyregrov, 2013)

Family systems theories

Family systems conceptualizations of grief focus on the social context within which bereavement and grief reactions occur (Walsh & McGoldrick, 2004). Bereavement is viewed as a normative event in the family lifecycle that requires members of the family to complete two specific tasks. The first task is to acknowledge the shared experience of loss; the second is to reorganize roles, routines, rules and relationships within the family to take account of the deceased. Family adaptation to loss is influenced by the unique circumstances of the death or loss; the family structure, functioning and lifecycle stage; and the family's sociocultural context. Where children face grief-related difficulties, family therapy facilitates open communication about the shared loss experience and reorganization of the family to take account of the loss, so that the child's needs are adequately met. Family therapy has been shown to help children adjust to bereavement and to prevent complicated grief in adults (Kissane & Bloch, 2002; Kissane et al., 2013). In one controlled study, the morbidity was reduced from 40% to 20% in a group of children who had lost a parent (Black & Urbanowicz, 1987).

Stage theories

A variety of theorists have argued that grief following bereavement and anticipatory grief prior to death may be conceptualized as a sequence of stages through which the individual passes from initial shock towards an endpoint of resolution. Bowlby (1973, 1980, 1982, 1988) conceptualized loss and bereavement within the framework of attachment theory and argued that the function of grief was to motivate the person to seek proximity with a primary attachment figure. Thus, immediately following bereavement there is a period of protesting against separation, characterized by shock, pining and anger. This is followed by a period of despair when the reality of the separation is acknowledged and the internal representational models of self in relation to significant others are modified. In this modified representational model, the deceased exists in the past but not the present as a significant attachment figure. Once this cognitive restructuring is complete, detachment occurs and the bereaved person is free to form other attachments. Thus progression through the stages of protest, despair and detachment are central to Bowlby's conceptualization of grief.

Kübler-Ross (1969, 1974, 1982, 1983) conceptualized the anticipatory grieving of people facing death as involving a progression through the stages of denial, anger, bargaining for extra time, depression and acceptance. The first three of these stages (denial, anger and bargaining) bear a remarkable resemblance to Bowlby's protest stage. Kübler-Ross's stages of depression and acceptance closely resemble Bowlby's stages of despair and detachment, respectively.

Longitudinal research has shown that there is wide variability in the temporal patterning of grief reactions which cannot be accounted for by simplistic stage models (Stroebe et al., 2013; Wortman & Silver, 1989, 2001). Many people do not experience initial extreme distress and do not require a period to work through their grief, while others experience complicated grief. From a clinical perspective, it is useful to assume that some children will experience some of the types of processes described by stage theorists, but not necessarily in an invariant order.

Psychosocial transition theories

Parkes (1993) conceptualized bereavement and life-threatening illness as psychosocial transitions where the central task is modification of the assumptive world, so that the loss is coherently accommodated into the child's worldview. This task of modifying the assumptive world is achieved by identifying discrepancies between the external world and the assumptive world. This entails reviewing routines of daily life and the old assumptions about how one's life and relationships were organized before bereavement or the diagnosis of terminal illness occurred. This process is emotionally painful. Children cope with this pain and anxiety by using denial-based defences or distraction-based coping strategies which regulate the pace at which grief-related material is processed.

The modification of the assumptive world is important, since an accurate assumptive world is vital for safety and survival. Without an accurate assumptive world, many events are experienced as unpredictable, and children feel unsafe, anxious and disorganized. Common strategies for coping with this sense of anxiety include avoidance of demanding social situations and confiding in a small number of trusted people.

Children's assumptive worlds are shaped by a variety of personal and contextual factors such as significant life experiences, the characteristics of their families, and wider cultural and religious beliefs and practices. The ease with which bereavement or loss experiences can be incorporated into one's worldview varies depending upon the content and flexibility of the worldview, the type of loss experienced, and the availability of personal and contextual coping resources to aid the incorporation of the loss into the worldview.

Wortman and Silver (1989, 2001) have shown that with adults, the wide variability in grief reactions can be largely accounted for by the ease with which the loss experience can be incorporated into the worldview. Where this accommodation process happens relatively easily, grief may be quickly resolved. However, where, the loss requires major revisions to the person's worldview, then a protracted grieving process may occur. Thus, adults who have a strong sense of self-efficacy, an internal locus of control and a history of achievement are particularly vulnerable to untimely bereavement, since they find such uncontrollable loss requires a major revision of their view of themselves and the degree of control they have over significant life events. In contrast, Silverman & Worden (1993) found that children with an internal locus of control showed more rapid recovery following bereavement.

Self-help groups are the treatment interventions most closely aligned with psychosocial transition theories of bereavement. Self-help groups provide a supportive forum within which to review one's worldview and receive credible feedback from people in similar circumstances. Unfortunately data on the efficacy of such groups for children and adolescents are unavailable (Lieberman, 1993).

Loss and restoration dual process theory of grief

Stroebe and colleagues have proposed that bereavement entails loss-oriented and restoration-oriented processes (Hansson & Stroebe, 2007; Stroebe & Schut, 2001). Bereaved children oscillate between coping with the emotional impact of loss (loss-oriented coping) and coping with the practical issues of developing new routines, roles and relationships (restoration-oriented coping). When children prematurely lose their parents, loss-oriented coping involves processing loss-related emotions and coming to accept the reality of the parent's death while concurrently avoiding engaging in restoration-oriented coping. During loss-oriented coping children may experience complex painful emotions such as shock, sadness, anger, anxiety, and guilt. In contrast, restoration-oriented coping involves establishing new lifestyles which take account of the death of the parent while concurrently avoiding engaging in loss-oriented coping. Denial, suppression of memories of deceased parents and distraction may initially be used to achieve this. When parents die prematurely, adaptive coping involves oscillating between confronting and avoiding loss and restoration stresses. Children must engage in an adequate amount of both processes to allow them to grieve their losses and restore their lives. They must also take respite from dealing with either type of stress to avoid becoming overwhelmed.

Empirical findings concerning grief reactions

Reviews of empirical studies of bereavement and loss allow a number of conclusions to be drawn which are of particular relevance to clinical practice (Black, 2002; Black & Trickey, 2009; Corr & Balk, 2010; Stroebe et al., 2001, 2008, 2013; Walsh & McGoldrick, 2004; Worden, 2008; Wortman & Silver, 1989, 2001). First, grief processes, either anticipatory or grief following loss, do not occur as an ordered and invariant sequence of stages as suggested by Bowlby and Kübler-Ross. There is a progression from shock though a variety of emotional reactions including anger, depression, anxiety and guilt to acceptance. However, there is wide variability in the way this progression occurs and not everyone experiences all processes. Second, depression following bereavement is not universal. Only about a third of people suffer depression following bereavement. Third, failure to show emotional distress initially does not necessarily mean that later adjustment problems are inevitable. It appears that different people use different coping strategies to cope with loss. Some use distraction or avoidance while others use confrontation of the grief experience and working through. Those that effectively use the former coping strategy may not show emotional distress. Fourth, extreme distress following bereavement commonly occurs in those who show protracted grief reactions. Fifth, not everyone needs to work through their sense of loss by immediate intensive conversation about it. Many people who work through their sense of loss early have later problems. Sixth, a return to normal functioning does not always occur rapidly. While the majority of people approximate normal functioning within 2 years, a substantial minority of bereaved people continue to show adjustment difficulties even 7 years after bereavement. Seventh, resolution and acceptance of death does not always occur. For example, parents who lose children or those who lose a loved one in an untimely fatal accident show protracted patterns of grief. Eighth, detachment, as described by Bowlby, often does not occur as part of children's grief processes. Rather, an internal representation of the deceased is constructed and the bereaved person continues to have a relationship with the deceased. Ninth, grief may have a marked effect on physical functioning. Infections and other illnesses are more common among bereaved children and this is probably due to the effect of loss-related stress on the functioning of the immune system. However, with the passage of time immune system functioning returns to normal. Tenth, children's grief reactions tend to be similar in form to those of adults but to be briefer and less intense, probably because in comparison with adults, children do not tend to focus for a protracted time period on memories or lost possibilities concerning the bereaved person. Children's anticipatory grief reactions to their own life-threatening illness are less intense than those found in adults with chronic illness. Also, parents of children with life-threatening illness tend to show more profound adjustment reactions to the condition than their children. The quality of parents' marriages may change in response to childhood chronic illness, with discordant marriages becoming more discordant as the illness progresses and stable marriages remaining so as he child approaches death. Finally, bereavement, particularly loss of a parent, leaves children vulnerable to depression in adult life. Adults bereaved as children have double the risk of developing depression when faced with a loss experience in adult life compared with their non-bereaved counterparts. Bereaved children most at risk for depression in adulthood are girls who were young when their parents died a violent or sudden death and who subsequently received inadequate care associated with the surviving parent experiencing a prolonged grief reaction.

Factors which contribute to adjustment after loss

In clinical practice variability in children's grief reactions may usually be accounted for by differences in loss-related stresses and differences in personal and contextual predisposing factors, problem maintaining factors and protective factors (Black, 2002; Black & Trickey, 2009; Corr & Balk, 2010; Stroebe et al., 2001, 2008, 2013; Walsh & McGoldrick, 2004; Worden, 2008; Wortman, 1989, 2001). A framework within which to conceptualize important variables in each of these categories is presented in Figure 24.1.

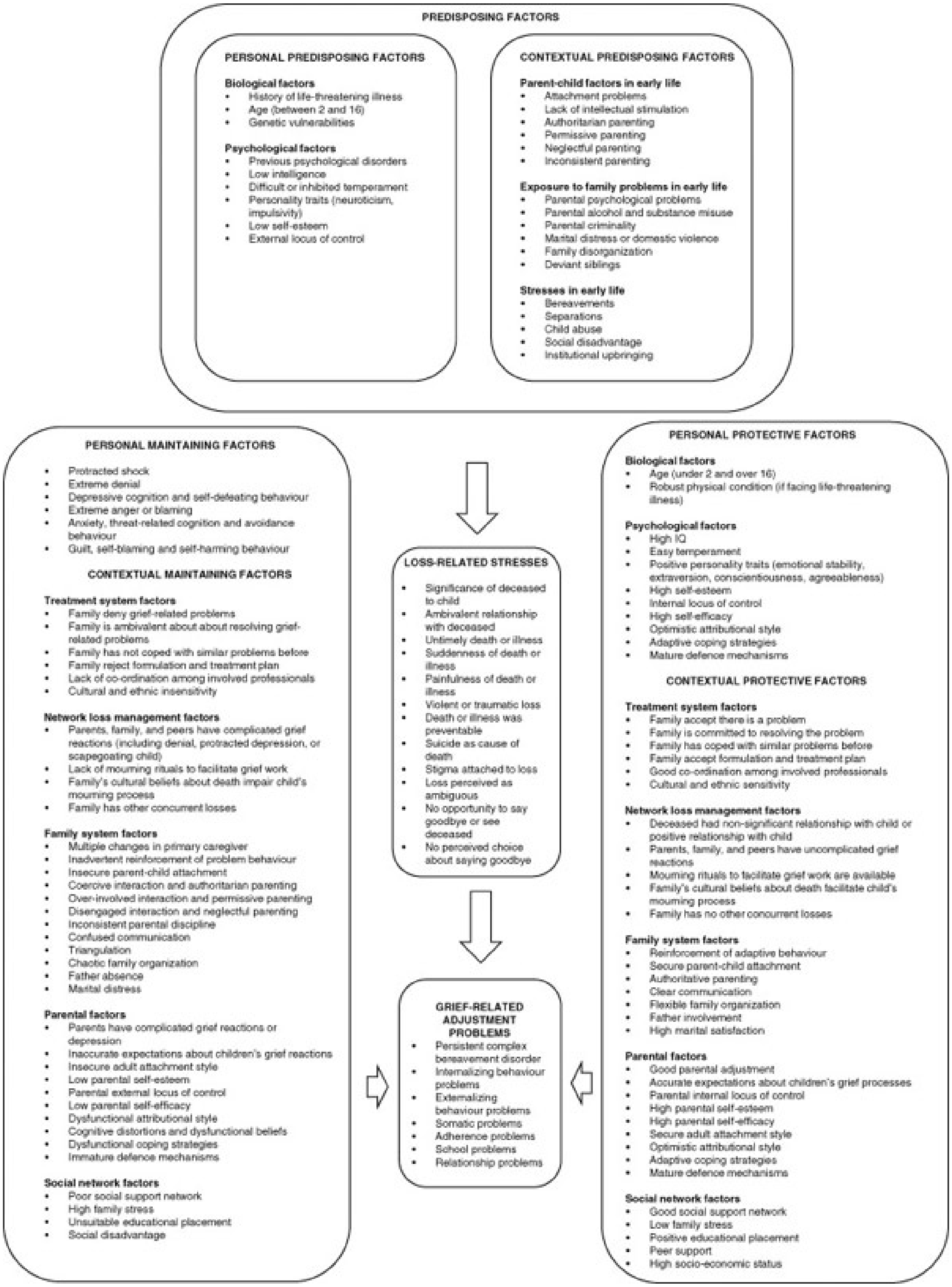

Figure 24.1 Factors to consider in the assessment of children's grief reactions

Loss-related stresses

Unique features of loss experiences have an impact on children's adjustment. In the case of bereavement, the significance of the deceased to the child affects the course of the grieving process. The most profound grief occurs when a child loses a parent or primary carer. Not only do such children lose a primary attachment relationship, but they usually also are exposed over an extended time period to the remaining parent's grief and may in addition suffer stresses associated with the financial hardship incurred by the loss of the parent, if he or she was a financial provider for the family. Where children have very ambivalent feelings about the attachment figure, this 'unfinished business' may exacerbate the grief reaction. That is, youngsters may feel they cannot lay their parent to rest, because they still feel intense anger over unresolved conflicts.

Untimely deaths, for example, when a child loses a young parent unexpectedly through a sudden accident, may have a more profound impact than those that occur in a timely way, such as when the parent is older and has undergone a protracted illness and is expected to die. When children face life-threatening illness, this is by definition an untimely loss in which the child and family's original hopes, expectations and plans associated with the child's future must be replaced with a more limited agenda to live life to the full for the time that remains. The more flexible the child and family are in reconstructing their worldview to take account of the child's untimely death, the better the child's quality of life will be for his or her reaming days.

With bereavement the suddenness of death, the painfulness and the degree of trauma or violence involved may contribute to the intensity and quality of the grief experience, since sudden, painful and traumatic events require a greater degree of emotional processing and are less easily accommodated into the child's worldview. Similarly when children face life-threatening illness or injury following an accident, the more unexpected the diagnosis and prognosis, the painfulness of the condition and the trauma entailed by the condition and its treatment all have an impact on the child's adjustment. Unexpected diagnostic and prognostic information may be better processed if it is given repeatedly (for example, by permitting the family to audiotape the consultation) and in circumstances that allows the child and family to gradually assimilate it (such as in an extended consultation). The availability of psychological or pharmacological methods for pain control may make it easier for children to manage the grief of coping with their condition. Understanding the rationale for chemotherapy, radiotherapy or other treatments that have traumatic or unpleasant side effects may reduce their negative impact on the child.

With bereavement, particularly bereavement due to suicide and where children suffer certain illnesses such as AIDS or accidents that lead to fatal injury, children's views on the preventability of the loss may affect their adjustment. In all of these circumstances, the children may ask if they or others could have prevented the death, illness or injury. Where children and families become preoccupied with such issues, self-directed anger and guilt or anger at others may become central organizing themes in their grieving processes. This preoccupation with preventability (and attributing culpability) may in some instances prevent assimilation of the loss into the worldview and resolution of the loss. Where litigation occurs, for example, for medical malpractice following bereavement, this type of protraction of the grieving process may occur.

Where suicide is the cause of death or in other instances where there is a stigma attached to the cause of death as in the case of AIDS, adjustment to the loss may be compromised when families prevent the child from discussing the death by defining it as a taboo subject or insisting on secrecy. Where ambiguity surrounds a loss, this too makes grief work problematic. For example, in cases where family members have dementia or are in a protracted coma for a number of years, it is difficult for children and surviving family members to view these family members as absent. This is because although they are psychologically absent, they continue to be physically present. It is difficult for children and surviving family members to modify their worldview to accommodate such losses when there continues to be ambiguity about these losses. Ambiguity about diagnostic and prognostic information poses similar problems for children facing life-threatening illness. They require clear, accurate information about their condition if they are to adjust to it.

This process of modifying one's worldview following bereavement is greatly facilitated if there are opportunities to perceive the concrete reality of death and to acknowledge the transition in the relationship with the deceased by saying farewell. Being present at the death, viewing the body, attending the funeral or ceremony, visiting the grave or place of rest, and formally or informally saying farewell are rituals that promote the grieving process. Children's perception of choice about the way they engage in these leave-taking rituals may affect their subsequent grief work. Allowing some latitude for children to decide how they will engage in such processes gives children a sense of control over the rate at which they will confront grief-related information, cues and stimuli. Children who do not have opportunities to process the reality of the death and who are given inaccurate information have more difficulty adjusting to loss. In some instances, parents may believe that they gave children the choice about viewing the body or attending the funeral because they verbally asked their children to make a decision about these issues. However, children may have perceived little choice because, for example, they felt that the parents' non-verbal signals indicated that to view the body or attend the funeral would have negative consequences.

For children with life-threatening illness, there is also the need to arrange leave-taking rituals. First, there is the need for the child and family to acknowledge that the child's lifespan of three score and ten years, as they originally thought of it, has been lost. Second, there is the need to plan a goodbye ritual for the child's last day of life. These two loss rituals help children and families to modify their worldview so that it accurately reflects their state of health and this maximizes the chance that they and their families will live life to the full for their remaining days.

Predisposing factors

Children's adjustment to bereavement may be influenced by background predisposing factors within both the personal and contextual domains.

Personal predisposing factors. The child's past mental health and developmental level, both cognitive and emotional, their overall ability level and their temperament may affect the way in which they respond to bereavement and to life-threatening illness. Between the ages of 2 and 16 years, children are particularly vulnerable to major loss experiences. They are past the age where lack of comprehension protects them from an awareness of the implications of major losses and have not yet developed adult coping strategies and defences. Children with lower ability levels who have mental health problems, temperaments and personality traits associated with slow adjustment to new situations are more likely to become fixed in the denial process and find the bereavement or illness experience confusing and difficult to cope with. Children with an external locus of control and low self-esteem may find bereavement and life-threatening illness more difficult to cope with, probably because they view themselves as ill-equipped to cope with the overwhelming nature of these experiences. Where children have had a stressful previous experience of a life-threatening illness or know that they have a vulnerability to serious illness, they may find that these background stresses compromise their capacity to cope with a current episode of life-threatening illness.

Contextual predisposing factors. Children who have grown up in families where their relationships with their parents were problematic; where they were exposed to chronic internal family stresses such as parental psychological problems; and where they experienced multiple stressful life events such as abuse or separations may be predisposed to developing adjustment problems when faced with bereavement or life-threatening illness. These contextual predisposing factors may prevent the child from viewing the family as a source of much-needed social support when faced with loss. They may also leave the child with ambivalent relationships to resolve when a parent dies, and grief associated with such relationships, in which there is *unfinished business*, is more stressful than grief associated with the loss of a cherished parent.

Maintaining factors

When children develop adjustment problems following bereavement or during life-threatening illness, these may be maintained by the way the child copes at a personal level with loss-related stresses. These adjustment difficulties may also be maintained by the way in which members of the child's family and network manage the situation.

Personal maintaining factors. Adjustment difficulties may be maintained by excessive entrenchment in a single aspect of the grief process. So, protracted shock, extreme denial, excessive despair, sustained intense anger and blaming, intense anxiety and avoidance, or guilt related self-injury may all maintain loss-related adjustment problems. For example, externalizing behavioural problems involving aggression toward others or non-compliance with medical regimes may be maintained by displacing sustained intense anger toward the deceased, or the child's own life-threatening illness onto others. Internalizing behaviour problems such as social withdrawal and self-injury may be maintained through protracted depressive rumination associated with despair; threat-related rumination associated with anxiety; and self-blame associated with guilt.

Contextual maintaining factors. Features of the treatment system, the family system, the social network and characteristics of the child's parents may maintain adjustment problems associated with bereavement or life-threatening illness. Many of these, listed in Figure 24.1, have been described in detail in Chapter 2, so the focus here will be on contextual maintaining factors unique to loss-related adjustment problems. Adjustment problems following bereavement or associated with life-threatening illness may be maintained by members of the child's family and social network, if the membership of the network is unstable, and the child experiences frequent changes in their primary carers, through, for example, multiple placements. Adjustment problems following bereavement or associated with life-threatening illness may also be maintained by members of the child's network, particularly if they have inadequate loss-management resources. Thus, if parents, family members, peers, teachers or involved professionals are ill-equipped to manage loss, then the way they treat the child may maintain the child's loss-related adjustment difficulties.

Children are likely to show poorer adjustment when parents and other network members have problematic grief reactions and where the bereavement occurs within the context of multiple life stresses. Problematic parental grief reactions often occur when the family have had difficulty resolving losses in the past and where there are clear parallels between the current loss and previous losses within the nuclear family or losses in previous generations. Parents, professionals or other network members may become entrenched in denial and this may inhibit the child from moving beyond denial. With life-threatening illness, this type of parental reaction may underpin poor compliance with treatment regimes since the child may deny the reality of the illness and the need for treatment. Where parents or others become entrenched in anger, the bereaved or ill child may be scapegoated and this may maintain aggressive or depressive reactions on the child's part. When network members suffer ongoing deep despair, children may find that the inability of these network members to offer social support maintains their adjustment problems.

The roles of the referred child and the deceased within the overall social network and the relationship between the bereaved child and the deceased has an impact on the way in which the child manages the grief process. It has been mentioned, earlier, that where the deceased occupied a central role for the child within the family network, then poorer adjustment may be expected than if the deceased occupied a more peripheral role. Thus, death of a parent, particularly the untimely death of the mother or primary caregiver, is probably one of the most painful losses for a child to endure. Where children have an ambivalent or unduly dependent relationship with the bereaved person, adjustment tends to be poorer because the complexity of the mixed emotions felt by the child complicates and protracts the grieving process. The child has to address the unfinished business of the dependent or ambivalent relationship with the deceased; modify their assumptive world to accommodate the loss; and negotiate a new set of relationships within the family with members who may have conflicting loyalties to the child and the deceased.

Confused communication within the family and wider social and professional network may maintain loss-related adjustment problems. Secrecy, myths and taboos about death, loss or life-threatening illness prevent children from modifying their worldview and altering their roles accordingly. Lack of co-ordination among professionals dealing with children who have life-threatening illness may underpin confused communication between the medical team and the family which in turn may maintain children's problems adjusting to their illness. With both bereavement and life-threatening illness, the lack of availability of mourning rituals and the absence of facilitative sociocultural or religious belief systems may compromise children's capacity to manage loss experiences. Treatment systems that are not sensitive to the cultural and ethnic beliefs and values of the youngster's family system may maintain grief-related problems by inhibiting engagement or promoting dropout from treatment and preventing the development of a good working alliance between the treatment team, the youngster and his or her family.

Protective factors

Children's personal characteristics and certain aspects of their social network may facilitate their adjustment to bereavement and life-threatening illness.

Personal protective factors. Children show better adjustment to loss experiences either before the age of 2, when they are unable to appreciate the significance of major losses, or in late adolescence when they have developed sophisticated coping strategies for dealing with loss. With life-threatening illness such as cancer, physical fitness is a protective factor. Intelligent children with easy temperaments, positive personality traits, an internal locus of control and high self esteem may adjust better to bereavement and probably adjust better to chronic illness than children who lack these assets. A range of coping strategies for eliciting social support from others, mature defence mechanisms, an optimistic attributional style and high self-efficacy may also lead to better adjustment in the face of significant loss experiences.

Contextual protective factors. Good adjustment following bereavement or during life-threatening illness is more likely where family members have ways of incorporating loss into personal and family worldviews and strategies for reorganizing the family to accommodate losses. In such situations parents typically have uncomplicated grief reactions and so are better able to offer their children the support they require. Parents who are not exposed to multiple additional losses and who have strong personal resources (for example coping strategies, defence mechanisms and mental health) are better placed to help their children cope with loss.

Where the child's role prior to the bereavement or illness was one where much support was available from family members, peers and school staff, the child may be better equipped to manage grief work, particularly if this network support persists. Where children permitted the free expression of vulnerability and grief-related emotions, then good adjustment may be expected. Clear communication and flexibility within the family, school and peer group probably lead to good adjustment. This type of support, communication and flexibility tends to occur where a strong marital relationship is present, where family relationships are positive and where the family has good relationships with the school, the medical team and other involved agencies. Where bereaved children or those with terminal illness feel well supported and where family roles, routines, rules, responsibilities and relationships can be renegotiated with limited difficulty, then adjustment will probably be better than where such events do not occur. Open communication between parents and children about bereavement or a child's terminal illness and impending death offered in a supportive and realistic yet hopeful way is probably associated with better adjustment. This requirement for clear communication is important for the medical team also. Families and children adjust better to childhood terminal illness when members of the treatment team offer clear unambiguous information in a supportive way and involve the child in decision-making about their medical care. A sensitivity to the parents' needs for support and to the whole family's need for an opportunity to say goodbye in the terminal phase of the illness when further medical intervention is futile may contribute to better family adjustment in the long term. Long-term family adjustment to the death of a child following terminal illness also may be better when children die at home than in a hospital setting.

In families where members model an appropriate grieving process, this may help children manage their own grief. Of particular importance is the way in which parents (or other primary carers) manage this process. Parents who acknowledge the loss and express their grief-related feelings in a culturally appropriate way show their child how the process of grieving is to be conducted. With both bereavement and life-threatening illness, the availability of mourning rituals along with sociocultural and religious beliefs that facilitate the grieving process contribute to the child's adjustment. Treatment systems that are sensitive to the cultural and ethnic beliefs and values of the youngster's family are more likely to help families engage with and remain in treatment, and foster the development of a good working alliance.

Assessment and formulation

The management of cases where children have been bereaved or face life-threatening illness should be based on a thorough evaluation and formulation of the child's grief-related problems. In addition to the routine assessment procedures set out in Chapter 4, the framework presented in Figure 24.1 may be used to encapsulate clinically relevant information and develop a formulation. This formulation should explain how loss-related stresses, predisposing factors, and maintaining factors underpin adjustment difficulties. However, it is critical to also identify personal and contextual factors that have the potential to contribute to the child's better management of the loss experience.

In some instances, children are referred for consultation following bereavement or when facing life-threatening illness, and their adjustment is well within normal limits, but parents or other involved professionals are concerned that there may be loss-related adjustment difficulties. In these instances, highlighting the many protective factors present in the case is a central part of case management.

When dealing with loss, some children develop problems which meet the diagnostic criteria for childhood depression, PTSD, school refusal, somatization disorder, oppositional defiant disorder or drug abuse. It may therefore be useful to review chapters dealing with these problem areas when formulating cases in which loss is the core theme but where one or more of these problems occur as part of the grieving process. Principles for managing specific symptoms outlined in these chapters may also be usefully incorporated into treatment programmes for children involved in the grieving process.

Some psychometric instruments that may be a useful adjunct to the assessment of grief related phenomena in adolescents are listed in Table 24.4.

Intervention with bereaved children

Intervention with children and adolescents who have experienced bereavement aims to help the child and family acknowledge the loss, incorporate it into their worldview and re-organize their lives to take account of the loss. In working towards these goals, account should be taken of personal and contextual factors identified in the formulation which maintain adjustment problems and those which have the potential to facilitate future adjustment. There is evidence for the effectiveness of family, individual and group-based interventions with bereaved children (Kissane & Bloch, 2002; Kissane et al., 2013; Rosner et al., 2010). All may be appropriate, depending upon the unique features of the case. In the early stages of grief work, family-based work is the most appropriate since it allows family members to develop a shared acknowledgement of the loss. Later, individual or group work may be offered concurrently with family sessions. There is also evidence for the effectiveness of using music and play, in addition to conversation, as a medium through which to conduct grief psychotherapy with bereaved children (Rosner et al., 2010).

Family-based grief work

Family-based work in cases of bereavement has three central goals (Black & Urbanowicz, 1987; Kissane & Bloch, 2002; Kissane et al., 2013; Walsh & McGoldrick, 2004; Webb, 2010):

- acknowledging the reality of the death
- modifying the family's worldview so that it incorporates the loss
- reorganizing the family system so that it meets the needs of the bereaved child so that they can move on with their lives.

All three goals may be addressed at all stages of the consultation process. However, in the opening phase of therapy acknowledgement of reality of the death tends to be the central focus, and in later therapy sessions the emphasis tends to be on family reorganization. Modification of the family's worldview so that it incorporates the loss is addressed throughout therapy and for some time afterwards, but is given particular attention in the middle phase of family therapy for bereavement. Three issues which deserve special attention when working with bereaved children are:

Table 24.4 Psychometric instruments that may be used as an adjunct to clinical interviews in the assessment of grief and related constructs

Construct	*Instrument*	*Publication*	*Comments*
	Traumatic Grief Inventory for Children (TGIC)	Dyregrov, A., Yule, W., Smith, P., Perrin, S., Gjestad, R., & Prigerson, H. (2001). *Traumatic Grief Inventory for Children* (TGIC). Bergen: Children and War Foundation.	An instrument for assessing grief reactions in children and adolescents.
Children's	Persistent Complex Bereavement Disorder Checklist (PCBDC)	Layne, C. M., Kaplow, J. B., & Pynoos, R. S. (2014). *Test administration manual for the Persistent Complex Bereavement Disorder Checklist – Youth version*. Los Angeles: University of California, Los Angeles Office of	This test for bereaved children and adolescents aged 8–18 assesses separation distress, reactive distress, existential/identity related distress, and distress over circumstances of the death.

grief reactions		Intellectual Property.	
	Inventory for Complicated Grief – Revised for Children (ICG-RC)	Melhem, N., Moritz, G., Walker, M., Shear, M., & Brent D. (2007). Phenomenology and correlates of complicated grief in children and adolescents. *Journal of the American Academy of Child and Adolescent Psychiatry, 46*, 493–499.	An inventory to assess complicated grief in young people aged 8–17 years.
	Complicated Grief Assessment – Child/Adolescent Version (CGA-C)	Nader, K., & Prigerson, H. (2009). *Complicated Grief Assessment – child and adolescent scales manual.* Austin, TX: Two Suns.	Multi-informant instrument to assess complicated grief in children and adolescents containing bereavement, prolonged grief, interplay with trauma sub-scales.
Siblings' grief reactions	Hogan Sibling Inventory of Bereavement	Hogan, N. (1990). Hogan Sibling Inventory of Bereavement. In J. Touliatos, B. Perlmutter, & M. Strauss (Eds.), *Handbook of family measurement* techniques (p. 54). Newbury Park, CA: Sage.	This 46-item scale assesses negative and positive responses to sibling bereavement.
Adult grief following bereavement	Texas Revised Inventory of Grief (TRIG)	Faschingbauer, T. (1981). *Texas Revised Inventory of Grief (TRIG).* Houston, TX:	This 21-item inventory yields scores on two sub-scales: feelings and actions at the time of the death; and present feelings and

		Honeycomb.	actions. It may be useful with older adolescents.
	Grief Experiences Inventory	Sanders, C. Maugher, P., & Strong, P. (1985). *Grief Experiences Inventory*. Palo Alto, CA: Consulting Psychologists Press.	This 135-item inventory yields scores on nine sub-scales: despair, anger, guilt, social isolation, loss of control, rumination, depersonalization, somatization and death anxiety. It may be useful with older adolescents.
	Grief Cognitions Questionnaire (GCQ)	Boelen, P., & Lensvelt-Mulders, G. (2005). Psychometric properties of the Grief Cognitions Questionnaire (GCQ). *Journal of Psychopathology and Behavioural Assessment, 27*, 291–303.	A 38 item questionnaire which assesses grief-related cognitions and may be used with older adolescents.
Children's quality of life following cancer	Minneapolis-Manchester Quality of Life Instrument	Bhatia, S., Jenney, M., Bogue, M., Rockwood, T., Feusner, J., Friedman, D., Robison, L., & Kan, R. (2002). The Minneapolis-Manchester Quality of Life Instrument: Reliability and validity of the adolescent form. *Journal of Clinical Oncology, 20*, 4692–4698.	A standardized child self-report instrument designed to assess quality of life in adolescent survivors of childhood cancer.

	Paediatric Oncology Quality of Life Scale	Bijttebier, P., Vercruysse, T., Vertommen, H., Van Gool, S., Uyttebroeck, A., & Brock, P. (2001). New evidence on the reliability and validity of the Paediatric Oncology Quality of Life Scale. *Psychology & Health, 16*, 461–469.	A standardized child self-report instrument designed to assess quality of life in survivors of childhood cancer.

- the use of rituals
- managing unfinished business
- psychoeducation about the grief process.

Each of these will be discussed following a consideration of the three main tasks of family-based grief work.

Acknowledgement of loss. In the opening sessions, the core task is helping the child and family to construct a shared understanding of the events surrounding the loss while at the same time inviting them to employ sufficient defences to avoid being overwhelmed by the emotional impact of the loss. During this phase, the psychologist invites each family member to give a detailed account of their understanding of the events before, during and after the death up to the present time. If hospitalization occurred, memories of this may be reviewed. Each person's recollection of the deceased's final hours and their reflections on these may be recalled. Details of the funeral, cremation or other rituals may be covered. This stage is concluded when there is agreement that everyone has been given an opportunity to acknowledge that the death occurred and the sequence of events that led to and followed this event.

Incorporating the loss into the worldview. In the second phase of therapy the child and family are invited to expose themselves to the full implications of the loss for the whole family and bear the emotional pain that accompanies this. By responding to this invitation and examining the discrepancies between the world as it now and as it was before the loss, the family's worldview is modified so that it can incorporate the loss. Family members are invited to remember the dead person and acknowledge that they had an important place in the child and family's life but are no longer present in this world and this causes all family members great pain. Opportunities for full expression of the wide range of emotions associated with grief process may be given. These include sadness, anger, anxiety, guilt, longing and other variations and combinations of these emotions. Opportunities to modify the family's assumptive world so that it can accommodate the loss may be created by reviewing how the absence of the bereaved person affect all aspects of family life. This review may begin with an exploration of how daily, weekly, monthly and annual routines will be different now from they way they were in the past. The more vividly the past can be remembered and compared with the present, the more effective this process will be. Children and family members may be invited to bring photographs, family videotapes, clothing, favourite pieces of music, perfume, personal effects and memorabilia associated with the deceased into the therapy sessions to facilitate this review process. Children and family members may be invited to engage in prolonged exposure to photos, videos and memorabilia, fully experiencing the emotions these arouse, while refraining from engaging in suppression, distraction or other safety behaviours. The place of the deceased in the wider extended family and community network may also be explored and the implications of the death for changes in routines involving the extended family and community may be discussed. Finally, it is useful to fully review the current death within a multigenerational perspective, and explore the role of the deceased person in the family as a system that runs through time for many generations. Similarities and differences between the current loss and other losses may be reviewed. Genograms and lifelines, described in Chapter 4, are particularly useful tools for exploring and tracking the impact of loss on the wider family context.

The second phase of therapy is complete when the family's worldview has shown signs of beginning to change so as to incorporate the reality of the loss. Such signs include talking about the deceased in the past tense; accepting that painful reminders of the loss will have to be regularly encountered rather than avoided; acknowledging that the pace with which parents come to terms with loss has an effect on the pace at which children can progress through the grieving process; and acknowledging that coming to terms with death for some family members may take a long time.

Reorganization. In the third phase of therapy, the main focus is on helping the child and family to reorganize their roles, routines, rules, responsibilities and relationships so that energy is directed into moving on and completing other tasks within the family lifecycle, especially meeting the child's needs, while allowing a place for the memory of the deceased in this new organizational arrangement. For example, following the death of a parent, the caregiving, breadwinning and leadership responsibilities of the parent have to be reallocated to other family members including the surviving parents, grandparents, aunts, uncles and older siblings. The place accorded to the memory of the dead family member should be congruent with the family's sociocultural and religious beliefs and with the individual developmental stages of family members. Thus, young children who believe in an afterlife may imagine that the deceased continues to look down on the family from heaven. Those without a belief in the afterlife may think of the deceased surviving in the memory of all family members and in the photographs or memorabilia left behind. Families show that they are moving on when there are signs that it may be possible for them to invest their energy in future projects in a way that is clearly not a frenetic attempt to distract them from the loss they have experienced in the past.

An episode of time-limited, family-based therapy for bereaved children may be concluded when there are signs that remaining family members have a coherent way to meet the child's needs in a predictable way, and the child can fulfil his or her role within the family, school and peer group without showing excessive internalizing or externalizing behaviour problems or somatic symptoms.

Rituals. Throughout the therapy process children and families may be invited to use or develop rituals to help them manage the grieving process (Imber-Black et al., 2003). Rituals may be used by families to acknowledge loss; to modify their worldview so that it now incorporates a symbol of the person who has died in a meaningful way; and to symbolize that the family is moving on through the lifecycle despite the death that has occurred. Where families find that their cultural or religious beliefs and practices do not provide adequate ready-made rituals for managing loss, they may be invited to develop their own and embed these into their family traditions. The main requirements for such rituals are that they be meaningful to the family; that they are congruent with family tradition; that they be stylized, symbolic transactions as distinct from routine conversations; and that they occur at times and places which have significance with respect to the loss. For example, an extra place may be set at the dinner table on the anniversary of a dead family member to acknowledge the loss but show that the person is remembered. In another instance, to mark the fact the family moves on despite loss, children and other family members may write a letter to the deceased a year following their death outlining how each person in the family has managed the 12 months that have elapsed since the funeral.

Unfinished business. Where children or other family members have ambivalent or dependent relationships with the deceased, or where the family is divided in its loyalty to the deceased, this unfinished business may need to be resolved before the family can reorganize itself and move on. Unfinished business may be resolved through a written or spoken monologue with a symbolic representation of the deceased and by representing one's position to other family members. The central process in resolving unfinished business is having a forum within which the mixed feelings are expressed, processed, acknowledged and reflected upon.

In family therapy, children who feel intensely ambivalent or dependent upon a deceased parent or relative may be invited to write them a series of letters in which they outline how they feel, what events led them to feel that way and how they would like to feel. They may be subsequently invited to read these out in an appropriate place such as at the graveside, in the family sessions or in individual sessions. In other instances, an empty chair may be included in family sessions to symbolically represent the deceased and the child may be invited to address their mixed feelings to this symbolic representation of the deceased. Throughout such work, parents and other family members may be invited to support the child who is attempting to resolve the unfinished business.

Psychoeducation. Parents and children may require psychoeducation about the nature and range of possible grief reactions that they may expect to experience. This has to be offered supportively so that parents and children do not feel objectified or misunderstood. The conceptualization of grief processes given earlier in this chapter may be explained to the family. A second option is to offer books to families such as those listed at the end of this chapter. Another option is to invite the family to watch a film which dramatizes a bereavement similar to their own and then discuss in the family sessions, the ways in which different people within the film managed the grief process. For example, in a family where a mother had died and the boys were presenting with behavioural problems, the boys and their father watched *Into the West*, which was about a travelling family in Ireland going through the same type of bereavement.

Individual sessions for PTSD

Individual sessions are particularly appropriate where children have suffered traumatic bereavement and develop PTSD. This may occur where children witness violent death, for example, within the context of suicide, an armed robbery, a car crash, or a natural disaster. In such instances, assessment of PTSD using procedures outlined in Chapter 12 is appropriate. Where children meet the criteria for PTSD, they require coaching in anxiety management skills and an opportunity to use these to regulate their anxiety during gradual and prolonged exposure to traumatic memories, following the procedures outlined in Chapters 12 and 21.

Group work for isolated children

Where children have experienced loss, and their parents are physically or psychologically unavailable to go through the grieving process with them, group therapy may be used as a forum for grief work. With group work, children benefit from peer support and the experience of seeing how other children are learning to cope with death. With group work, various expressive media such as drawings, paintings, sculpture, music, scrapbooks, drama and so forth may be used as vehicles for the telling and retelling of bereaved children's experiences of loss, so that they can modify their worldview and accommodate the reality of their losses. A number of useful workbooks are listed at the end of the chapter.

Pre-bereavement counselling

Children referred prior to bereavement, for example, where a parent is terminally ill or injured, may be helped through pre-bereavement counselling to prepare to manage the imminent loss. During this preparation process they can write a letter or rehearse what they wish to say to their dying parent as part of a leave-taking ritual. They may then be briefed about what they may expect to experience when they are with their dying or dead parent. For example if the parent is in a coma, or just deceased, the child may be informed the way the parent will appear, what the parent's skin temperature will be and so forth, so the child will not be surprised when they enter the room in which the parent is dying or laid out. During the leave-taking ritual, arrangements should be made for the child to be accompanied by a supporting adult. This may be the surviving parent, an older sibling or an aunt. The most important issue here is that the supporting person be able to focus on the child's need for support. In some instances, the surviving parent may be so involved in their own grief experience that they are unable to be sensitive to their child's needs. After a leave-taking ritual, the supporting person should be available to the child to help them process their grief-related emotions by talking through their reaction to the ritual.

Intervention with dying children

Clinical accounts of good practice in the management of terminally ill children permit certain core principles for case management to be identified and these are described next (Brown & Warr, 2007; Black, 1994; Grinyer, 2012; Herbert, 1996; Wolfe et al., 2011).

Family-oriented care for terminally ill children is ideally offered by an entire multidisciplinary team involved with the child's care including physicians, nurses, chaplains, social workers and psychologists who share a common approach to care. Within this team, clinical psychologists may take responsibility for convening family consultation sessions. All significant members of the child's nuclear and extended family may be invited to some of these sessions.

Children and their families should be informed of the diagnosis and prognosis in age-appropriate language and in a factual way with the name of the disease and the fact that some people with the disease die. However the information should be given so that it provides the child with an opportunity to be hopeful insofar as that is possible and in a socially supportive context. Failure to communicate honestly may lead to a sense of isolation and distrust. However, such information should probably be given repeatedly since acceptance of the fatality of illness dawns on children gradually and progresses through the following levels:

- I am very ill.
- I have an illness that can kill people.
- I have an illness that can kill children.
- I may not get better.

- I am dying.

Dying involves three distinct types of losses. First, there is the loss of comfort. Terminal illness often entails pain, discomfort, and loss of control over bodily functions such as sleeping and elimination. Second, there is the loss of lifestyle routines such as engaging in exercise, being mobile, playing sports and so forth. Finally, there is the anticipated loss of intimate relationships. Children know that they will not have the same type of relationship with their parents and siblings once they die and they sense the family's grief and attempts to avoid acknowledging their own impending death. However, in order to enjoy the remainder of their life to the full, the reality of imminent death must be openly acknowledged by the family.

Once this acknowledgement has begun, the family may be encouraged to maximize the child's quality of life for his or her remaining days. So, for example, if there is only one Christmas left, making the most of it becomes a priority. The family is helped to use the remaining time in a way that will not leave the parents or other family members with regrets. Thus, while the treatment team must make it clear that they are offering the family support in managing the child's last weeks or days of life and that the child's death is imminent, they should encourage the expression of hope; specifically, the hope that particular events (such as a family picnic) may occur before the child dies.

Acknowledging the reality for the child's imminent death and attempting to incorporate this fact into the family's worldview precipitates anticipatory grief processes. Intense feelings of sadness, anxiety, anger and guilt are experienced. These profound emotional experiences may be explored and contained within family consultations. In anticipating life after the child's death, for most parents the idea of 'coming to terms with a child's death' has been found to be less accurate and useful than the idea of 'living with the death of the child'.

There are certain key messages that should be woven into consultations with dying children and their families, and wherever possible, the parents or primary caregivers should be empowered to communicate these messages to the child (Spinetta, 1980). First, children may be informed that they will not be alone when they face death and after they die. Second, they should be told that they have done all that they could do with their lives and that their lives had a good purpose. Third, children should be given permission to fully express their sadness, anger and confusion about death and dying. Fourth, they may be told that their parents and all members of the family probably have similar feelings sadness, anger and confusion about death and dying, and so they may see their parents crying because they do not want their children to die. Fifth, children should be told that adults (including parents and the medical team) will do everything to prevent death but that there are some diseases or injuries that cannot be healed. Sixth, children may be assured that there will be no pain and after death. Seventh, the fact that there will be an opportunity for children to say goodbye to their family and friends should be clarified. Eighth, children may be told that they will continue to have a link with their family and friends beyond death. This link should be expressed within the context of the families belief system. So, for families that believe in the afterlife, the promise of a reunion may be mentioned. For families that do not hold such beliefs, the fact that the family will always remember the child and the good times that were shared may be discussed. Where children are dying life-story book work may help them achieve some sense of autobiographical coherence and this may make accepting their death less painful. Life-story book work involves helping the child to construct a biographical account using words, photographs and pictures which makes sense of and sequences the event of their lives (Ryan & Walker, 2007).

The context within which people die can have a profound effect on the quality of the dying process for themselves and their families. For children, where possible, it is preferable to spend the final days at home with their families. If the demands associated with this exceed parental coping resources, a hospice offers an alternative to a hospital setting. The hospice movement provides family-centred care and helps people die with a minimum of pain and discomfort and a maximum of dignity and integrity.

Following the death of a child, families continue to require support, and this may be most usefully provided by the many self-help groups that have been established for bereaved parents. Such groups include Friends or Candlelighters Foundation.

Summary

Children’s adjustment to bereavement or life-threatening medical conditions is in part dependent upon their understanding of the concept of death. Empirical studies show that the concept of death evolves not only as cognitive maturation occurs but also as experience of death broadens. The irreversibility, universality and functionality or death may be appreciated by children during the pre-operational stage, provided they have been exposed to particular death-related experiences such as having a terminal illness or having experienced multiple bereavements. Within industrialized Western culture, the normative expectation is for people facing a serious loss to show extreme initial distress which declines with time. However, this is just one of a number of patterns including protracted grief reactions; extreme denial and apparent absence of grief; delayed grief; grief in which anger, anxiety or somatic complains rather than sadness are the primary features; and PTSD-like grief reactions following the traumatic loss. These deviations from normative expectations are referred to as complicated grief. In DSM-5, persistent complex bereavement disorder, which refers to a prolonged complicated grief reaction, has been included as a new diagnostic category warranting further study. Shock, denial, yearning, sadness, anger, anxiety, guilt and acceptance are the principal grief processes. These do not occur in an invariant order, nor do they occur in all cases as stage theories suggest. This idiosyncratic patterning of grief responses is probably most comprehensively accommodated within multifactorial theories. Theoretical accounts of grief have been put forward within the biopsychological, psychodynamic, cognitive-behavioural, and family systems traditions, and treatment programmes based on behavioural, psychodynamic and family systems principles have been developed. Bereavement has also been conceptualized as a psychosocial transition, as involving oscillating between the dual processes of loss-oriented coping and restoration-oriented coping. For children, family-based treatment is probably the intervention of choice in helping children adjust to loss experiences. Such treatment should be based on a comprehensive formulation which takes account of the particular adjustment problems or grief response patterns presented by the child; the child's characteristics, the relevant contextual factors; and the loss-related factors that underpin the adjustment problems. However, it is crucial to personal and contextual factors that have the potential to contribute to the child's better management of the loss experience. Psychologists may also offer children with dying parents pre-bereavement counselling and children with terminal illness psychological support within the context of multidisciplinary palliative care programmes.

Exercise 24.1

Develop a preliminary formulation for the case presented in Box 24.1 and develop a plan for an intake assessment interview that would allow you to refine your formulation.

Further reading

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Resources for clients

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Websites

The Child Bereavement Trust: http://www.childbereavement.org.uk/

Cruse Bereavement Care: http://www.crusebereavementcare.org.uk/

Jessica Kingsley's webpage on bereavement resources: http://www.jkp.com/uk/counselling-psychiatry-and-psychology/bereavement.html

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Index