THIRD EDITION

Assessment and Treatment of Childhood Problems

A Clinician's Guide

Carolyn S. Schroeder
Julianne M. Smith-Boydston

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About the Authors

Carolyn S. Schroeder, PhD, is Adjunct Professor in the Clinical Child Psychology Program at the University of Kansas. She previously held appointments in the Departments of Pediatrics, Psychiatry, and Psychology at the University of North Carolina at Chapel Hill. Throughout her career, she has trained graduate students, interns, and postdoctoral fellows from multiple health care disciplines in the assessment and treatment of children and their families. She is widely recognized for the establishment of a model for psychologists' participation in primary care pediatrics. Dr. Schroeder's professional contributions have been recognized with awards from the Society of Clinical Psychology, the Society of Clinical Child Psychology, the Society of Pediatric Psychology, and the Division of Family Psychology of the American Psychological Association, among other honors. In 2013, the Society of Pediatric Psychology established an annual award for clinical practice in her name.

Julianne M. Smith-Boydston, PhD, is Director of the Child and Family Services Clinic at the University of Kansas, where she has supervised teams of graduate students since 2004. For over 15 years, she worked at the Bert Nash Community Mental Health Center in Lawrence, Kansas, where she coordinated staff development, oversaw all assessments for child and family services, and supervised multidisciplinary community-based teams, psychology practicum students and interns, and therapists in a therapeutic classroom. Dr. Smith-Boydston also held an appointment in the Department of Psychology at Washburn University, where she taught graduate and undergraduate courses. Her publications reflect her interest in evidence-based practices and their dissemination into community-based programs.

In Memoriam

Betty N. Gordon (1938–2004)

This book is dedicated to the memory of Betty N. Gordon. Betty was the coauthor of the first and second editions of this book, a first-rate clinician and researcher, and, above all, a good friend and colleague. For over 20 years, she collaborated with the first author (C. S. S.) in a community pediatric primary care clinic. While Betty was a professor in the University of North Carolina Department of Psychology, she spent time each week in the pediatric clinic working with children and parents, collaborating with the medical staff, and supervising students. She also demonstrated the value and feasibility of doing research in the primary care setting. Her research focused on children who had been sexually abused and physically abused, with a special interest in children's memory for traumatic events. As a developmental and clinical psychologist, she understood the value of normative data on children's knowledge and memory of events and how this was affected under various conditions. For example, she studied preschool children's knowledge of sexuality, what they had been taught, and their parents' beliefs about sexuality, and compared these data with those of children who had been sexually abused (Gordon, Schroeder, & Abrams, 1990a, 1990b). She, along with other colleagues, also studied preschoolers' memories of unique and stressful situations, how these memories faded over time, and how they were affected by intervening information (see Selected Works below). This research was funded by National Institute of Mental Health grants and carried out in a number of pediatric clinics throughout North Carolina.

Betty's seminal research on children's memories provided important developmental knowledge on the ability of children to provide accurate information about traumatic events for court testimony. She helped change the policies on how child sexual abuse was handled in North Carolina by working with the University of North Carolina Institute of Government to train police officers, attorneys general, and judges to use research to evaluate cases of child sexual abuse. Betty was a true pioneer in pediatric psychology and advanced the field of integrated care and collaborative research. She is missed and will never be forgotten by her colleagues and graduate students, and by the children and parents with whom she worked.

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Preface

Many advances have been made in the years since the publication of the second edition of this book. Of major importance is the increasing evidence that there is a great deal of overlap among diagnostic categories and a greater appreciation that not only are most risk factors dimensional but most disorders are also dimensional (e.g., autism spectrum disorder). The fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5; American Psychiatric Association [APA], 2013) reflects these advances with a lifespan approach and new developmentally sensitive diagnostic categories. The overlap among diagnostic categories (e.g., depression and anxiety), however, continues to be an issue. The advances in biological and genetic science have continued to be enormous, including faster and less expensive genome scans, the discovery of genetic mutations, the multiple clinical pictures associated with single genes, and the importance of gene–environment interactions. This also has increased the importance of a biopsychosocial approach to health and well-being, and therefore the focus on integrated primary health care. Family practitioners have had a long history of integrated practice, and there are now an increasing number of behavioral health care professionals integrated within other primary health care clinics (Stancin & Perrin, 2014).

This book is written for all professionals who provide services for children, including psychologists, social workers, nurses, behavioral health care workers, pediatricians, child psychiatrists, guidance counselors, and trainees in these and other health-related fields. The first author (C. S. S.) worked in a community pediatric primary care clinic for 28 years, and this book can provide a model for the implementation of mental health services for children in today's integrated health care environment (Schroeder, 2004). This third edition has been enhanced by the participation of Julie M. Smith-Boydston, who has a long history of working in a community mental health center and training graduate students at the University of Kansas (KU) and Washburn University; this experience, along with her current position as Director of the KU Child and Family Services Clinic, brings unique insight into the community at large, as well as the training needed to successfully translate empirical treatments into community-based settings.

The importance of a theoretical approach to the work of the child clinician cannot be overstated. Our thinking has been strongly influenced by developmental psychopathology, behavioral, social learning, and cognitive-behavioral theorists. Approaches to assessment and intervention that reflect these orientations are emphasized throughout the book. For each problem area, we have tried to describe treatment methods that are developmentally sensitive, and we have documented efficacy for the specific problem in question. As the field continues to struggle with how to transfer these empirically validated treatments to community-based clinics (i.e., the real world), a theoretical approach to guide the selection and development of these treatments is of critical importance.

In this third edition, we have attempted to provide a more complete picture of the problems that can occur between ages 2 and 12 years by adding two new chapters: Chapter 11, on developmental disabilities, and Chapter 15, on traumatic events. Following changes in DSM-5 (APA, 2013), we have also included obsessive–compulsive disorder in the chapter on habits and expanded the chapter on siblings to include peer relationships. In each chapter, we added information on medical interventions, with a specific focus on pharmacological treatments. The book is organized into three parts, with Part I providing a foundation for working with children and their parents. Chapter 1, on the development of psychopathology, provides an overview of child development, where things can go wrong in the developmental process, and factors that can help children be more resilient or cause them to be more vulnerable to life stresses. This is followed by Chapter 2, on assessment and treatment, which focuses on issues of diagnostic classification, prevalence of problems, steps in the assessment process, and treatment issues. The Comprehensive Assessment-to-Intervention System (CAIS) described in this chapter is used throughout the book as a framework by which clinicians can systematically (and often quickly) gather information necessary to understand and intervene in the problem areas covered in later chapters. Part II deals with problems that can occur in childhood: eating and feeding problems (Chapter 3); toileting problems (Chapter 4); sleep difficulties (Chapter 5); habits, obsessive–compulsive behaviors, and tics (Chapter 6); fears and anxieties (Chapter 7); depression (Chapter 8); attention-deficit/hyperactivity disorder (Chapter 9); disruptive behavior (Chapter 10); and developmental disabilities (Chapter 11). Part III covers life events that can be sources of considerable stress for children and parents during the course of growing up: siblings and peers (Chapter 12); divorce (Chapter 13); bereavement (Chapter 14); and traumatic events (Chapter 15). For each problem area or stressful event, we provide a brief review of the literature, a guide to comprehensive assessment, specific treatment options, and a case example that illustrates the central features of the problem. Two families gave us permission to use their stories (in Chapter 11). All other case illustrations come from our general clinical experience and do not describe any individual person or family. Finally, in the appendices we provide descriptions of assessment instruments, as well as a number of clinical forms. Given the increased availability of free, validated assessment instruments, we have included information on ways to obtain these measures.

This book reflects the importance of a collaborative relationship among the child, the parent, and the clinician in assessing and treating childhood problems. The clinician's role is multifaceted, including that of educator, advocate, service provider, and case manager. He or she provides expertise based on knowledge of developmental processes and the empirical literature related to children's problems. Parents, on the other hand, have the primary and ultimate responsibility for their child's well-being and bring a unique understanding of their child and family. It is through this collaboration with parents that we are often able to change the trajectory of a child's life by enhancing parents' abilities to deal with tasks of parenting and enabling them to help their children cope with the stresses of growing up in an imperfect world.

A special thank you goes to Dr. Stephen Schroeder for his assistance with the chapter on developmental disabilities. Dr. Schroeder is a world-class researcher on developmental disabilities, Professor Emeritus at KU, and former Director of the Schiefelbusch Life Span Institute at KU. We would also like to acknowledge Kelsey Moffitt, who provided invaluable support with references, tables, editing, and more. At the time of writing, Kelsey is about to embark on the KU Counseling Psychology doctoral program—we think she has a bright future! Also, thanks to Washburn University, which provided support for the project through an internal small research grant. Thanks to the many people at The Guilford Press who helped shepherd this work to completion, most especially Kitty Moore, for her persistence in advocating for a third edition, and Carolyn Graham and the production staff. There are many people who by their very presence greatly influenced our work: the parents and children with whom we have been fortunate to work, and colleagues at the University of North Carolina, Washburn University, the University of Kansas, the Bert Nash Center, and Chapel Hill Pediatrics. Without the encouragement and support of Betty Gordon's family (husband Ken and children Andrew and Sarah), this third edition would not have been written. Our husbands, Steve and Brad, also encouraged us to write a third edition and provided support and understanding throughout the process. Finally, our children—Mark and Matthew (C. S. S.), who are raising their own children (infants to teenagers!), and Sydney and Jacob (J. S. B.), who are in elementary and middle school—have taught us a good deal about parenting and resilience. They continue to teach us about development and developmental variations as they occur in their lives and our own.

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PART I

THE FOUNDATION

CHAPTER 1

Development of Psychopathology

Most children, in the process of growing up, will have emotional and behavioral problems that are transient in nature and are due to the stresses of development and adaptation to family and societal expectations. The primary task for parents[1] is to enhance their children's development by helping them gain control over normal developmental events such as toilet training, fears, being told "no," learning about sexuality, and dealing with siblings and peers. Children and parents also must sometimes cope with negative life circumstances (e.g., poverty or parental unemployment) and stressful events (e.g., a hospitalization, a divorce, a death, or the birth of a new baby). Epidemiological studies indicate that over the course of any 1 year, 13–20% of children suffer from a mental disorder that is severe enough to interfere with their learning, behavior, or emotions (Centers for Disease Control and Prevention, 2014b). The goals of the clinician are not only to assist this group of children with major mental health problems, but also to help the other 80% of children and their parents manage the stresses of normal growth and development.

Because of their rapid growth and development, children represent a unique population. Previously, the importance given to changes in development depended to a great extent on theoretical perspective. Psychoanalytic theory, for example, emphasizes the emergence of independence and psychosexual development, whereas social learning theory focuses on the development of self-control and self-efficacy. However, the failure of any one theory to explain the full complexity of development across ages and areas has led to general acceptance of a transactional and/or biopsychosocial perspective of development, which attempts to account for factors within the child, family, and society that influence the child either directly or indirectly (see Hayden & Mash, 2014, for a discussion of theories). Thus, developmental change (both positive and negative) is the result of the transactional dialogue for each child with his or her unique biological/genetic makeup, the physical and social environment, and the cultural milieu into which he or she is born. For example, the impact of stressful life events may vary with the child's stage of development, temperament, parental characteristics, culture, and the social support system available to the family at that time.

Knowledge of developmental norms is essential for the clinician to recognize which behaviors are excessive or deficient for children at a given developmental stage. An understanding of typical development is also important in choosing appropriate intervention techniques. Treatment of the school-age child, for example, will rely more heavily on cognitive and language skills, whereas use of concrete, situation-specific tasks and developmentally appropriate play activities will be more appropriate for the preschool child. The clinician must also have knowledge of the typical sequence of skills acquisition, in order to plan appropriate treatment for problems such as social skills deficits.

In light of the importance of a developmental perspective for clinical work with children, this chapter first focuses on issues related to the typical development of children from birth to 12 years, and the factors that influence children's later development. Next, research related to the variables that contribute to the vulnerability or resilience of children is reviewed, followed by models for prevention and early intervention.

TYPICAL DEVELOPMENT

General Comments

The developmental tasks of children change with age, and each stage of development presents unique challenges to children and parents. The ways in which significant adults help children through these difficult periods may have implications for children's later development. For example, a child who is having trouble with separation and individuation may have more difficulty with social skills if parents deal with separation issues in an angry or rejecting manner rather than with warmth and support.

In considering typical development, the clinician should keep both inter- and intraindividual differences in mind. Individual differences in the rate of development are clearly apparent during the preschool years, and these differences often persist into the school-age years. Some children, for example, begin to speak before the age of 1, whereas other children have not acquired extensive language by age 3. Differences in physical growth become dramatically apparent in the late elementary and early adolescent years, although each child may be developing within a typical range. In addition, academic standards typically reflect great differences in the developmental progression of children.

A child's individual rate of development within diverse areas can vary as much as the rate of development among children. A child may be speaking in sentences at age 2 years but may not begin hopping or skipping until much later than expected. Similarly, a child may be at the top of the class in reading but have difficulty participating in group play activities. Some of these inter- and intraindividual differences are primarily the result of genetic/biological factors; others seem to be more the result of environmental influences. The unique interaction of these two factors—the child and the environment

—is what ultimately determines each child's developmental course.

Because learning takes place rapidly and simultaneously during childhood, it is common for children who are not developing as expected to be identified at this time (particularly during the preschool years) because they fail to achieve an expected developmental milestone. It is usually a general pattern of difficulties in development, rather than slower development in any specific area, that alerts adults to potential problems. For example, in comparison to peers, a child may be slower to learn to dress and eat independently, toilet training may be slower and more difficult, and constant supervision may be needed at a time when most children are becoming increasingly independent. If developmental problems are not noticed during the preschool years, they will almost inevitably be identified as a child enters school, when there are increased expectations for him or her to sit quietly, pay attention, process more complex language, read, do arithmetic, and deal with difficult social situations.

The following discussion focuses on issues in development that are most relevant to understanding how psychopathology develops in children during the periods of infancy, toddlerhood, preschool, and school age. Table 1.1 provides an overview of typical development from infancy through school age, along with the associated parental tasks. The reader is referred to Davies (2011) for more detailed descriptions of developmental milestones.

TABLE 1.1. Issues of Normal Development and Associated Parental Tasks

Infants (0–1 years)	Toddlers (1–2 years)	Preschoolers (2–4 years)	School-age children (5–12 years)
		Physical/motor development	
• Brain develops rapidly • Weight triples, height doubles • Develops capacity for self-regulation of arousal/emotions • Physiological regularity increases • Becomes oriented to external world: sensory integration, visual and auditory acuity • Motor skills develop: rolling, sitting, crawling, standing, walking, reach and grasp, pincer grasp, hand to mouth, eye–hand coordination	• Stands and walks alone • Imitates motor actions • Goes up and down steps holding on • Stands on one foot • Uses implements (crayons, spoons)	• Hops, skips, and jumps • Throws ball • Dresses • Undresses • Ties shoes • Copies shapes	• Slow and steady growth • Increased eye–hand coordination • Sense of body position and gross motor function permit participation in organized sports
		Cognitive development	
• Needs environmental stimulation and exploration • Engages in sensory–motor actions and experiences • Learns about contingencies • Develops object permanence • Imitates adult behavior • Repeats pleasurable experiences • Anticipates familiar events • Begins goal-directed behavior	• Intense interest in exploring the world • Explores properties and functions of objects • Observation and imitation are key to learning • Develops expectations based on memory of past • Symbolic play and thinking begin • Conscious goals and plans • Views the world egocentrically	• Memory capacity develops (processing and storage in place, good recognition memory, increase in ability to use retrieval strategies) • Uses verbally mediated thinking • Understands real versus not real • Engages in pretend play • Understands consequences and rules • Views the world egocentrically • Uses magical thinking	• Attention, persistence, and goal-directedness allow formal schooling • Increased capacity to store, retain, and retrieve new information • Improved memory skills; uses retrieval strategies • Increasingly accurate perception of reality • Reversibility: can analyze events by thinking about them • Understands cause and effect • Spurt in cognition at 7 years: spatial and visual organization,

			time orientation, seriation, auditory processing • Increase in executive processes: problem solving, sustained attention
Language development			
• Cries or smiles to communicate • Orients to sound • Babbles and vocalizes • Imitates vocalization • Learns turn taking • Looks and points • Understands single words and labels • Follows simple directions by end of first year	• Imitates single words • Uses single words to communicate needs • Combines words and gestures • Vocabulary of 10–100 words • Uses two- or three-word sentences	• Rapid development of grammar, syntax, and pronunciation • Uses language to understand the world • Asks questions • Follows three-step commands • Uses four-word complex sentences • Relates long stories and experiences • By age 5, has a 1,500- to 2,500-word vocabulary; grammar similar to that of adults'	• Expression in written language begins • Vocabulary continues to increase • Uses language to express ideas and feelings, to plan for the future and remember the past, and to solve problems
Social–emotional development			
• Attachment develops • Uses strategies to maintain proximity • Uses caregiver to decrease arousal and regulate affect • Smiles responsively • Initiates play interactions • Cooperates in simple games (peekaboo) • Joint attention development • Beginning sense of self • Cautious with new people • Responds to parents' limit setting by end of first year	• Balances desires for closeness with caregiver and for independence, exploration • Plays independently and in parallel with others • Imitates others and role-plays daily events • Becomes self-assertive • Bites or hits peers • Expresses needs and feelings in gestures and words • Has limited internal control • Recovers quickly from upset • Begins to understand social expectations	• Group play begins • Develops friendships • Follows rules • Plays cooperatively • Internalizes parental standards • Prosocial behavior increases • Interacts appropriately with adults and peers • Uses language to express feelings • Uses words to control impulses	• More consistent sense of self • Increased sense of identity based on gender, race, ethnicity and personal characteristics • Self-esteem based on sense of competence and status in peer group • Uses cognition to regulate internal arousal, to delay action, to attain goals, and to control behavior • Internalizes values, norms, and rules • Can see conflicting viewpoints and tolerates ambivalence • Identifies with parents as role models • Increased identification with same- sex peers

		Sexual development	
• Physiology for sexual arousal and orgasm present	• Origins of gender identity • Origins of self-esteem • Labels body parts including genitals • Uses slang labels • Enjoys nudity • Touches own and others' sex parts • Experiences genital pleasure	• Gender permanence established • Recognizes gender differences • Limited knowledge of pregnancy/childbirth • Knows sexual body parts, uses elimination functions for sex parts, uses "dirty" words • Increased interest in sexuality • Engages in sex play with peers, siblings: exhibits genitals, exploration of own and others genitals, may insert objects in genitals • Masturbates for pleasure, may experience orgasm • Enjoys nudity, takes clothes off in public	• Genital basis of gender known • Correctly labels sex parts • Sexual aspects of pregnancy known • Increased knowledge of sexual behavior: masturbation, intercourse • Sex play with peers: kissing, mutual masturbation, "doctor" play, simulated intercourse • Shows modesty and embarrassment: hides sex play/masturbation • By age 10, knows physical aspects of puberty • Body changes begin: menstruation and wet dreams • May fantasize about sex • Interested in media sex • Uses sex language with peers; tells dirty jokes
		Parenting tasks	
• Scaffold or support child's development • Adapt to child's ongoing development	• Provide opportunities for exploration and motor activities • Talk to and describe child's	• Be an authoritative parent • Be a good role model for appropriate behavior, expression of feelings, and relationships	• Be an authoritative parent • Be a good role model • Encourage and model independent problem solving

• Be sensitive and responsive to child's cues • Provide appropriate stimulation and experiences • Follow child's lead/engage in joint attention • Correctly label body parts • Provide verbal and physical affection	actions • Ensure child's safety • Start setting limits • Use distraction to discipline • Use correct labels for body parts, including male/female genitalia; teach basic body functions; allow exploration of body parts • Teach what is special about being a girl or boy; allow cross sex play	• Provide consistent daily routines and expectations • Be a good listener • Describe child's actions and feelings • Use correct labels for all body parts; teach functions of genitalia; both elimination and reproduction • Discuss physical differences between boys and girls; what is special about being male or female; treat and teach that each child is unique and special • Don't overreact to sex play, use as a "teachable moment"; insertion of foreign objects into body parts is harmful and forbidden; masturbation is a "private behavior"; teach appropriate and inappropriate words • Teach sex abuse prevention: genitalia are private parts and should not be touched (except for health/hygiene) by relatives, friends, or strangers; practice saying "no" and role-play "what you would do if . . ."	• Provide consistency • Be a good listener • Monitor and supervise child's activities and friends • Teach sexual, reproductive, functions of body parts, including intercourse; discuss changes with puberty for both sexes, including menstruation, wet dreams; get human papilloma virus vaccination; discuss sexually transmitted diseases, protection • Gender identity is fixed by this age; encourage individual interests and activities • Share attitudes and values regarding premarital sex; set clear rules for dating and curfews; provide information on contraception/protection; accept teenagers need and desire for privacy • Discuss correct/incorrect perceptions of abusers; identify abusive situations including peer harassment; practice assertive/problem-solving skills in troublesome social situations; explain how abusers including relatives, friends, strangers may be manipulative; for older children, discuss date rape

Infant Development (Birth–1 Year)

Development during the first year of life is phenomenal, and by 12 months of age, infants barely resemble the beings they were at birth. The main tasks of the first year can be summarized as follows: (1) to gain physiological stability, (2) to develop interpersonal attachments and strategies for maintaining them, (3) to regulate arousal and affect, (4) to develop and gain control over motor skills, (5) to begin to communicate needs and desires, and (6) to explore and learn about the external world. Brain development is most rapid during the first year of life and makes all other functions (sensory, perceptual, emotional, regulatory, motor, and cognitive) possible (Sheridan & Nelson, 2009). This development is inseparable from the parents' interactions with the infant. Although the child is born with certain biological prerequisites and his or her capabilities unfold in a regular progression, simple maturation is not sufficient to ensure normal progress. The infant is born with a capacity to organize his or her experiences, for example, but is dependent on adults to determine what those experiences will be and to provide appropriate stimulation and support so that he or she can profit from these experiences. Neurologically, infancy is a critical period, because cortical development is influenced by the amount of central nervous system activity stimulated by experience. The types of experiences to which the infant is exposed influence which neural pathways will be strengthened, which will remain available, and which will atrophy (Davies, 2011). Behaviorally, infancy is a unique time of helplessness, when nearly all of the infant's experience is mediated by adults in one-to-one interactions permeated by affect. Once children become independent and can speak for themselves, they gain access to more opportunities for experiences. Thus, issues of parenting are most critical during this early period of life.

Problems during infancy typically come to the attention of pediatricians rather than mental health professionals. However, mental health clinicians should be knowledgeable about two areas of research most related to the development of later mental health problems: attachment and temperament. Both the quality of parent–infant attachment and the child's temperamental characteristics can potentially influence the child's future functioning, and difficulties in either area are seen as risk factors for the development of behavioral or emotional problems.

Attachment

The formation of *attachment*—that is, an emotional bond between the infant and the primary caregiver(s)—occurs gradually over the course of the first year of life. As Campbell (2002) describes, the process begins as parents respond to the infant's signals of hunger or other distress. Infants gradually learn whether their needs will be met consistently, and as a result, develop expectations about adult behavior relative to their signals. At first, any adult will do, but gradually, the infant begins to discriminate between and respond differently to familiar and unfamiliar people. As development progresses (usually by 6 or 7 months), the infant begins to engage in active attempts to maintain contact with significant caregivers and becomes upset when separated from them. By the end of the first year, the attachment figure is the infant's main source of comfort and is used as a secure base from which the infant ventures out to explore the world (Waters & Cummings, 2000).

Early in this process, the key to the formation of a secure attachment between the infant and parent(s) is the ability of a parent to respond sensitively and promptly to the infant's signals of distress (i.e., crying). As the child progresses through the first year, parents must adapt their behavior to the child's rapidly changing needs while continuing to be sensitive and responsive to the child's signals, as well as provide support for development (Cassidy & Shaver, 2008; Howe, Cicchetti, & Toth, 2006).

Studies have shown that secure attachment occurs similarly across socioeconomic status (SES) levels and different ethnicities (Ward & Carlson, 1995). Across cultures, mothers are usually the primary attachment figure, but infants can and do establish attachments with multiple caregivers. Even when there are multiple attachment figures, the number is limited and viewed by the infant in a hierarchy, with the mother usually holding first place (Cassidy, 2008). Thus, when an infant has an insecure attachment with a parent, it is possible to have a secure attachment with another important caregiver who may provide a compensatory protective function (Howes & Spieker, 2008). However, the importance of the primary mother–infant attachment was demonstrated by Oberlander and Black's (2011) study of high-risk, urban, low-income, African American adolescent mothers. They found that when the adolescents were the primary caregivers over the first 24 months postpartum, their children had more positive behavior and academic achievement at 7 years of age compared to the children of adolescents who had shared caregiving during this time (i.e., whose parents did not assume the primary caregiving role).

Across cultures, secure attachment has been found to be essential to an infant's psychological development (Posada et al., 2002). Infants who are securely attached to their parents show more optimal development in a number of areas (Grossman, Grossman, Kindler, & Zimmermann, 2008). Sroufe, Egeland, Carson, and Collins (2005) found patterns of cognitive functioning associated with early secure attachment to parents, including (1) more symbolic play, (2) more internal control, (3) better problem-solving skills, (4) increased task mastery, and (5) higher school achievement. They also found that the quality of early attachment relationships is important in emotional development, influencing popularity, number of social contacts, ability to offer support to others, and increased self-esteem.

Attachment relationships are not necessarily stable over time and are less stable in higher-risk (e.g., low SES, depressed mothers) than in lower-risk families (Fraley, 2002). Attachment status can fluctuate as a function of parental and environmental circumstances, as well as genetic factors (Luijk et al., 2011; Thompson, 2000). Thus, securely attached infants may become insecure if their parents become less able to meet their needs because of divorce, onset of mental health problems, poverty, or other life stresses. Likewise, insecure infants may become more secure if their environments become more stable. Raby, Cicchetti, Carlson, Egeland, and Collins (2013) found that genetic variation related to the mother's oxytocin system moderated the stability of secure attachments from infancy (12–18 months) to adulthood (19 years and 26 years). Oxytocin, a hormone released by the pituitary gland, is responsible for behavior associated with relationships and bonding; higher levels increase maternal behaviors, which, in turn, increase the oxytocin levels in infants. Overall, it is reasonable to consider an insecure attachment, especially at extreme levels, as a risk factor for the development of problems later in life (Cassidy & Shaver, 2008; Cicchetti & Valentino, 2006). Likewise, a history of secure attachment can promote adaptive development throughout childhood and later life (Davies, 2011).

Temperament

Temperament refers to biologically based personality traits that affect the child's orientation to the world (Davies, 2011; De Pauw & Mervielde, 2010). Historically, temperament and personality traits have been seen as distinct domains, with *temperament* referring more often to a constitutionally based behavioral style in very young children and *personality* to a more complex variety of psychosocially shaped behavioral and cognitive preferences in adults (Nigg, 2006). Many researchers now argue that the traditional dimensions of temperament are closely related to adult personality traits, and that from an early age, temperament and personality traits appear to be more "alike than different" (Bijttebier & Roeyers, 2009). In an evaluation of the relationship between models of temperament and the adult five-factor model of personality (i.e., Neuroticism, Extraversion, Conscientiousness, Agreeableness, and Openness-to-Experiences), De Pauw and colleagues found a joint trait structure and described how the emerging traits are linked with problem behaviors in preschoolers (De Pauw & Merviede, 2010; De Pauw, Mervielde, & Van Leeuwen, 2009).

The early work of Thomas and colleagues demonstrated individual differences in temperament as early as the first few weeks of life (Thomas & Chess, 1977; Thomas, Chess, & Birch, 1968). In infants age 3 months they identified three patterns of temperament: (1) easy, (2) difficult, and (3) slow to warm up. Infants described as temperamentally "easy" have a positive mood, regular biological patterns, moderate activity level, adaptability to change, good attention span and persistence, mild-to-moderate intensity and sensitivity, and positive responses to new situations. Temperamentally "difficult" infants have predominately negative mood, irregular biological patterns, intense responses, slow adaptation to change, and withdrawal from novel stimuli. Over five decades, research has demonstrated that the difficult infant is harder to parent and is at higher risk for developing behavior problems later in life than is the easy infant who tends to be more resilient to stressful situations and events (Fox et al., 2005; Rothbart & Bates, 2006; Vaughn, Bost, & van IJzendoorn, 2008; Wachs & Kohnstamm, 2001).

Not all difficult children develop adjustment problems, however, and some easy children exhibit difficulties later in life. To explain this phenomenon, Thomas et al. (1968) introduced the concept of *goodness of fit* between parents and the infant. Thus, difficult infants with highly stressed, unresponsive parents are considered at higher risk for later problems than are difficult infants with responsive, sensitive, calm parents (Campbell, 2002; Davies, 2011). Likewise, easy infants born into dysfunctional, highly stressed families may later develop problems, despite being easier to care for during infancy and early childhood.

Goodness of fit is an important aspect of understanding the development of the parent–infant attachment relationship. Individual differences in the frequency and duration of crying, infant cuddliness and consolability, activity level, alertness, and self-quieting can have profound effects on parental behavior and the quality of the developing parent–infant relationship. The association between temperament and attachment is complex, however, with parent behavior and infant characteristics having both direct and indirect effects on attachment security (Rothbart & Bates, 2006). For example, mothers who experience high levels of anxiety during pregnancy may describe their infants as more "difficult" at 4–6 months (Austin, Hadzi-Pavlovic, Leader, Saint, & Parker, 2005), and infants who are irritable in infancy are primarily at risk for avoidant attachment when the parents experience stress from other risk factors (Vaughn et al., 2008).

Although various aspects of the construct of temperament (e.g., stability, measurement, definition) continue to be debated (De Pauw & Mervielde, 2010), it is generally agreed that it is manifested from infancy onward, has a strong genetic or neurobiological basis, and is relatively consistent across situations and time (Rothbart & Bates, 2006). Most researchers also agree that temperament has a multidimensional nature and comprises specific dimensions of behavior-influencing traits that are the foundation for later developing personality and developmental psychopathology such as conduct problems (Frick & Morris, 2004), anxiety (Lonigan, Vasey, Phillips, & Hazen, 2004), and aggressive, antisocial behavior (Frick & White, 2008). Furthermore, temperament is being examined as one aspect of the ability to regulate one's emotions and impulses, and as a mediator of children's adjustment to a variety of stressful life events (e.g., parental divorce, death of a loved one). Consideration of temperamental characteristics/personality traits in young children is clearly important to understanding many aspects of their development.

Toddler Development (1–2 Years)

Independence

The hallmark of development in the second year of life is the child's striving for autonomy and independence, at the same time that he or she still wants to be close to the primary attachment figure. Children at this age have an intense desire to explore the world and to master new and increasingly complex experiences, but they are still almost completely dependent on their parents. Davies (2011) summarizes the primary tasks of the toddler period: (1) to balance the need for closeness with exploration of the environment; (2) to become increasingly independent; (3) to begin to internalize parental standards; (4) to gain the ability to control emotions, impulses, and behavior; and (5) to begin to use mental representations in play and communication.

Many later adjustment problems have their origins during this early period. As an example, some amount of defiance and noncompliance is to be expected during the second year of life, and behavior management for the first time becomes an important issue for parents. It is clear that inappropriate parental responses to children's noncompliance or defiance can exacerbate problems, creating a negative reinforcement cycle (Patterson, 1976). Thus, it is not surprising that negative and conflicted parent–child relationships during the toddler period predict continued problems at school entry and beyond (Campbell, 2002; Shelleby et al., 2012).

Whether the child's defiance represents the self-assertion necessary to achieve independence or reflects anger and disturbance is a primary question for professionals. Unfortunately, many parents have trouble making this distinction. They may interpret all toddler defiance as a threat to their authority, resulting in excessive punishment; conversely, they may have trouble setting appropriate limits on the child's behavior, for fear of stifling the child's initiative. Toddlers have limited internal control over their behavior and impulses; this ability develops gradually during the preschool years, driven in part by the development of cognitive and language skills. As a result, a primary parental task is to provide external controls that ensure a child's safety while he or she is busy exploring the environment.

Preschool Development (2–5 Years)

Child psychologists consider the preschool years (ages 2–5) to be among the most important developmental periods, because the foundation for later competence in many areas is laid during this time. The emergence of language, self-awareness, peer relationships, and autonomy/independence, as well as the increased complexity of cognitive, play, social, and motor skills, sets the stage for new and often intense interactions between the child and the environment. As a child's capacity to interact with the environment increases, so do the problems and concerns of parents. More than 50% of well-child visits to pediatricians during the preschool years involve concerns related to disruptive behavior problems (Arndorfer, Allen, & Aliazireh, 1999). While there is a lack of consensus about how to define and diagnose psychiatric disorders in children as young as 2 years old, epidemiological studies in community or primary care clinics have found a full range of *Diagnostic and Statistical Manual* (DSM)-like psychiatric disorders for preschoolers ages 2–5, with overall prevalence rates ranging from 16 to 26% (Dietz, Lavigne, Arend, & Rosenbaum, 1997; Keenan, Shaw, Walsh, Delliquadri, & Giovannelli, 1997). Despite these rates being similar to the median rate for older children and adolescence across community studies (Costello, Egger, & Angold, 2005), few preschoolers (11%) with DSM diagnoses are referred for treatment (Egger & Angold, 2006).

Significant problems in any one developmental area can affect the development of skills in other areas. Difficulty with language or limited language stimulation, for example, can influence cognitive development, or problems with self-control can affect social–emotional development, as well as self-esteem and social relationships. Because of their importance in the development of psychopathology, language and self-regulation, are discussed in the next sections.

Language Development

The hallmark of development during the preschool years is use of language. Although language begins to develop during infancy, and the process continues throughout toddlerhood, the period between ages 2 and 6 years represents a time of enormous growth in children's language abilities. Rice (2009), in a synopsis of language development during the first 6 years of life, states that in the first year, infants go from cooing vowel sounds to producing repetitive consonant–vowel sounds, to producing meaningful but imperfect words. In the second year, words are initially acquired one by one, then vocabulary grows rapidly. After they acquire a few dozen single words, children start to produce two-word utterances. These utterances form the basis for grammar, which allows children to understand and produce meaningful sentences. During the third year, vocabulary increases with the production of full sentences. From then on, language acquisition involves the comprehension and production of ever more complex sentences, as well as the acquisition of thousands of words. By school age, children start to master written language. Rice states that without explicit teaching, as many as 14,000 new word meanings may be acquired as children encounter them in meaningful situations and conversations; this phenomenon is the foundation for later reading skills. Moreover, preschool children begin to use language to develop new cognitive skills, to facilitate their understanding of the world, to increase their memory, to organize their thoughts, and to control their impulses.

Hart and Risley (1995, 1999, 2003), in their landmark longitudinal study, demonstrated that the quantity or amount of talking to a child has a profound effect on a child's acquisition of language, later language development, and academic achievement. They found that children living in poverty, children born into middle-class families, and children with professional parents all had the same kinds of language experiences. Children born into homes with fewer economic resources, however, had fewer of these experiences. Simply, in words heard by age 4 years, an average child in a professional family accumulates experience with 45 million words, in a working-class family, 26 million words, and in a low-SES family, 13 million words. By the third grade

(9–10 years of age), the language gap between the three groups of children continues to grow larger, with significant differences in vocabulary size, receptive language, and reading comprehension, which subsequently are associated with their cognitive and achievement levels (Hart & Risley, 2003).

In addition, in the first 4 years of life, the average child in a professional family would hear 560,000 more statements of positive versus negative feedback, and in a working-class family they would hear 100,000 more positive feedback statements. A child in a low-SES family, however, would hear 144,000 fewer positive and 84,000 more negative feedback statements than an average child in a working-class family (Hart & Risley, 2003). These findings provide unique and strong support for the role that language stimulation plays in both cognitive development and a child's experience in interpersonal relationships.

Several other factors have been shown to enhance language development. These include (1) speaking "motherese" (i.e., simple sentences focused on present events, slow rate of speech with pauses at significant words, and paraphrasing of the child's utterances); (2) *semantic contingency* or joint attention, which involves immediate responses to the child's utterances, and conversing about what presently interests the child; (3) reading to the child; (4) requesting rather than demanding; and (5) following the child's lead during play interactions (Hart & Risley, 1995, 1999; Saxon, 1997). One factor that may impede language development is a controlling style of interaction with the child, characterized by many commands, directives, questions, and frequent attempts to shift the child's attention to whatever interests the parent.

Delays or disorders of language can impede not only cognitive development but also development in other areas. Any of the major categories of speech and language disorders can be seen in children as young as the preschool years, including disorders of speech (articulation, voice quality, and fluency), disorders of language (understanding the symbol system, and production of words, meanings, and grammar), and disorders of communication or pragmatics (social uses of language as a communication system) (DSM-5, American Psychiatric Association [APA], 2013). Disorders of language and communication (but not speech disorders) are significantly associated with psychiatric disorders in childhood (Toppelberg & Shapiro, 2000) and adolescence (Beitchman et al., 2001). Cantwell and Baker (1991) have reported that as many as 50% of children with language disorders also have psychiatric diagnoses, about equally divided among behavioral and emotional disorders. Beitchman et al. (2001) found that children with language impairments at age 5 years were significantly more likely to have anxiety (primarily social anxiety) and antisocial personality disorders at age 19 years. This association appears to be strongest for children who have problems with receptive language or comprehension. For example, comprehension delays at age 3 have been found to predict behavior problems at ages 7–11 (Silva, Williams, & McGee, 1987). In a review of 10 years of research on language disorders, Toppelberg and Shapiro (2000) concluded that although often undetected or suspected, the presence of receptive or comprehension language disorders is a high-risk indicator of more phonological, pragmatic, and psychiatric comorbidity, worsening social competence, and hyperactivity over the years. Therefore, early concerns about language should be referred to the appropriate professionals for assessment and possible intervention.

Self-Regulation

The expression of emotion during the preschool years is usually uninhibited, because the child is in the process of understanding emotions and learning how to communicate emotions in socially acceptable ways. Anger is usually expressed behaviorally in response to an immediate stimulus (e.g., wanting a toy) by biting, scratching, or kicking, but is typically short-lived. Temper outbursts occur most often at about 2–3 years of age, then gradually diminish during the later preschool years. Self-regulation (e.g., the ability to label emotions, to talk about emotions, and to use language about emotions to guide behavior) increases during the preschool years (Denham, 2007).

Emotion regulation is defined as "the process of initiating, maintaining, and modulating the occurrence, intensity, or duration of internal feeling states and emotion-related physiological processes" (Eisenberg, Guthrie, et al., 1997, p. 295). *Behavioral regulation* refers to the ability to control emotionally driven behavior (e.g., facial or bodily reactions, aggression). Thompson, Lewis, and Calkins (2008) describe emotion regulation from a *systems perspective* involving reciprocal influences among multiple control processes such as attention, developing language ability, executive function, memory, causal reasoning, perceived self-efficacy, emotion understanding, and a developing knowledge of sociocultural display rules. By viewing emotion regulation as a process of emerging capacities, researchers and clinicians can better understand how regulation occurs in different contexts and at different ages, and what exactly is being regulated when emotions arise.

Children face many challenges in learning to regulate their emotions and behavior, including (1) tolerating frustration, (2) coping with fear and anxiety, (3) defending themselves and their property, (4) tolerating being alone, and (5) negotiating friendships (Saarni, Campos, Camras, & Witherington, 2008). As dysregulation is a common component of most forms of psychopathology, an important question for parents and professionals is how children internalize parental standards and gain control over their emotions and behavior.

The development of emotion regulation begins at birth with the infant's inborn temperamental characteristics, especially ease and intensity of arousal (Rothbart & Bates, 2006; Sheridan & Nelson, 2009). These characteristics set the stage for how the infant will react to incoming stimuli. Experience (particularly the responses of parents or other caregivers), however, also plays a major role in moderating the infant's reactions (Rothbart & Bates, 2006). At first, the infant is almost completely dependent on his or her parents for regulation. Feeding, clothing, physical comforting, provision of regular and predictable routines, sensitive responding to the infant's signals, and prevention of excessive stimulation or frustration all help the infant maintain a steady state. Later, parents promote regulation through their interactive styles, such as (1) responsive and contingent versus insensitive, (2) cooperative versus intrusive or controlling, (3) reciprocal versus unilateral, (4) supportive versus overprotective, and (5) accepting versus neglecting (Calkins & Hill, 2007; Kochanska, Aksan, Knaak, & Rhines, 2004). Moreover, they directly teach regulation by modeling, disciplining, and reinforcing their children (Shelleby et al., 2012; Calkins, 2007). As an example, Kochanska et al. (2004) argue that an inductive style of discipline (i.e., reasoning) elicits the optimal level of arousal in children, allowing them to attend to and process parental messages. Conversely, power-oriented or anxiety-arousing techniques may produce overarousal in a child, interfering with their ability to learn. A complete lack of discipline in expectations or consequences may not arouse children enough for them to pay attention to their parents or motivate them to change their behavior.

At the same time that parents are assisting the child to regulate his or her emotions and behavior, the child is developing more advanced cognitive and language skills. Self-regulation develops when children learn to communicate their needs and emotions more effectively, begin to understand social situations and the need to regulate their behavior, and gain the ability to apply regulation strategies intentionally (Davies, 2011). Toddlers can comply with simple requests in familiar, predictable situations but do not understand the rationale for compliance and do not generalize to new situations. Thus, control is entirely external to the child at this age. By 24 months of age, true self-control begins to emerge, and a child has less need for external constraints (Kochanska & Murray, 2000). Self-control at this age is still largely external, however, and is tied to concrete and specific situations. Parents provide control either by changing the child's environment or by providing rewards or negative consequences for the child's appropriate or inappropriate behaviors, respectively (Kochanska et al., 2004). By 3–4 years of age, children are better able to generalize rules from situation to situation and can recognize when other people behave inappropriately. They also begin to exercise more control by talking out loud about their own behavior. Verbal mediation of behavior increases rapidly during the preschool years. By 5–6 years, a child begins to internalize this verbal control. The child then tends to control his or her own behavior by following rules to gain approval from others. At about age 6, the beginning of moral behavior appears, with the child's own conscience controlling behavior to avoid personal guilt rather than the condemnation of others (Kochanska, Barry, Jimenez, Hollatz, & Woodard, 2009). Although 4- and 5-year-old children become quite distressed in the presence of adult emotional expression and show different styles of coping, the accurate interpretation of others' emotional expressions does not develop until middle childhood, (i.e., 5–10 years; Rudolph, Lambert, Clark, & Kurlakowsky, 2001).

Environmental circumstances also play a role in how children learn to self-regulate. Stressful occurrences, such as parental divorce, death of a loved one, or child abuse, can alter a child's internal reactivity to emotion and subsequent coping behaviors (Calkins & Hill, 2007; Waldinger, Toth, & Gerber, 2001). Thompson and Calkins (1996) argue that children in these difficult circumstances often resort to nonoptimal regulatory strategies in their efforts to adapt to stressful environmental demands. They note that in some cases (e.g., ongoing parental conflict or abuse), there simply may not be a healthy way to cope.

The inability to regulate one's emotions is associated with behavior problems—externalizing problems, such as acting out, for children who are underregulated, and internalizing problems, such as anxiety or depression, for those who are overregulated. Conversely, appropriate regulation is associated with more competent social functioning, both concurrently and in the future (Denham, 2007; Eisenberg, Fabes, et al., 1997; Saarni, Campos, Camras, & Witherington, 2006). A longitudinal study of over 1,000 children by Caspi, Moffitt, Newman, and Silva (1996) exemplifies this work and highlights the importance of emotional and behavioral regulation in children's development. In this study, children who were underregulated (i.e., who were irritable, impulsive, and lacking in persistence; had trouble sitting still; and had rough and uncontrolled behavior) at 3 years of age were more likely to qualify for a diagnosis of antisocial personality disorder and to be involved in criminal activity at 21 years of age. In contrast, overregulated or inhibited 3-year-olds were more likely to meet diagnostic criteria for depression at age 21. Controls for family SES did not change these long-term associations. Similarly, Shields and Cicchetti (2001) found that being emotionally dysregulated differentiated maltreated children who were either bullies or victims of bullying from maltreated children who were neither.

School-Age Development (5–12 Years)

The developmental tasks for school-age children (ages 5–12) involve the consolidation and refinement of the skills necessary to meet the expectations of society. The hallmarks of development during this period are increased cognitive skills, a more consistent and internalized sense of self, and the development of social relationships outside the home. It is during this period that children develop new and more complex cognitive and language skills, and refine their fine and gross motor and attending skills. Socially and emotionally, they confront the challenges of dealing with increased numbers of adults and children in both structured and unstructured settings. Self-concept and the perceptions of others become increasingly abstract and consequently more accurate, leading to the development of social support networks outside the immediate family.

Although there is a lack of physical changes prior to adolescence, there is important development in the psychosexual area during early childhood, which is why sexual development is also covered in this section.

Cognitive Development

Development of children's cognitive skills advances rapidly during the school-age years and forms the basis for their development in other areas. From about age 6 onward, children no longer think egocentrically and develop increasingly mobile, flexible, reversible, and logical thought processes. By 7–8 years, children are able to use representational or internalized cognitive strategies in a systematic fashion to organize, order, and manipulate objects, numbers, and events. Later, a child is able to think of possibilities that do not exist in reality, to manipulate things mentally that are not actually present, and to see that reality is just a special case of what is possible. These advances in cognition allow for formal schooling and permit the child to master increasingly complex academic material. Moreover, increased cognitive skills allow a child better control over his or her impulses and behavior. Parental standards and rules become internalized to the extent that the child can use these to guide behavior in the absence of authority figures.

It is not surprising that school/academic problems are the most common referral concerns at this age (Campbell, 2002), since the transition from preschool to elementary school is often difficult, and many children with learning and/or behavior problems are identified at this time. In addition, learning and behavior problems in school tend to coexist. For example, it is estimated that up to 80% of children with attention-deficit/hyperactivity disorder (ADHD) also show learning difficulties (DuPaul & Stoner, 2014). In addition, comorbidity with ADHD is predictive of worse mental health outcomes than those for children with a learning disability without ADHD (DSM-5; APA, 2013). Behavior problems associated with learning problems include aggression, social withdrawal, depression, poor self-esteem, and language and social skills deficits. Children with learning problems also tend to be rejected by their peers and are therefore vulnerable to the long-term consequences of social rejection, including bullying, delinquency, dropping out of school, and various psychiatric disturbances (Lewandowski & Lovett, 2014).

In general, school problems have been shown to be associated with a high degree of heritability, socioeconomic disparities, poverty, and adverse social conditions, all of which may influence the trajectory of adjustment problems and academic achievement (Donovan & Cross, 2002; Hosp & Reschly, 2004; Petrill, 2013; Planty et al., 2009).

Self-Concept and Self-Esteem

Self-concept and self-esteem develop throughout childhood and adolescence (and throughout life), but they become increasingly consistent and abstract during the school-age years. “Self-concept” refers to one’s view of oneself; “self-esteem” is defined as one’s self-evaluation, or the discrepancy between one’s actual self-concept and the ideal self (Harter, 1983, 2008). Consistent with cognitive development, preschool children tend to view themselves in terms of concrete attributes, such as physical characteristics and possessions. Preschoolers also tend to think of themselves in either–or terms—for instance, as “nice” or “mean,” “good” or “bad” (Eisenberg, Fabes, & Spinrad, 2006). For them, self-concept and self-esteem are largely tied to feedback from parents and other significant adults. During the elementary school years, however, children begin to think of themselves in more abstract terms, and their sense of themselves becomes increasingly dependent on how they think others (especially peers) perceive them.

Self-esteem based on the awareness of competence and status in the peer group plays a critical role in social and emotional development during the middle school years. Low self-esteem is associated with a number of psychiatric diagnoses (DSM-5; APA, 2013), and also with poor academic achievement and peer relationship problems. High self-esteem, on the other hand, has been shown to buffer the effects of stress (Harter, 2008). Conversely, successful coping with stressful events can also foster a sense of mastery and enhance self-esteem (Davies, 2011). Therefore, the association between self-esteem and other factors is somewhat circular. Campbell (2002) states that adults have many opportunities to influence children’s self-esteem. They can reward, punish, or ignore their children’s successful experiences. They can also expose their children to mildly stressful experiences and help them to cope, or they can shield them from every adversity, denying them the experience of mastery and consequent self-confidence.

Peer Relations

The tasks of social development are complex for school-age children. Although parents remain important sources of support, other adults and peers play an increasing role in the child’s socialization. Many aspects of socialization, such as conflict resolution, problem solving, sharing, and behavioral regulation, are worked out in the context of the peer group. Social development is dependent on many other aspects of development, particularly cognitive and language development. Reasoning about the physical world, for example, provides the basis for reasoning about the social world. Social competence is in part a function of the development of specific cognitive skills, such as representational or symbolic thinking and social perspective taking, as well as language comprehension and communication skills (Davies, 2011). Research in behavioral genetics suggests that some aspects of social competence, such as sociability and extraversion, have a substantial genetic component (Plomin, 1989; Werner, 2000).

Moreover, developmental research has shown that children's experiences in early caregiving relationships provide the basis for the development of social competence. For example, the quality of the parent–child attachment bond has been related to the quality of a child's later peer relationships: Securely attached children tend to have happier, more harmonious, and less controlling peer relations than do insecurely attached children (Berlin, Cassidy, & Appleyard, 2008).

Children's friendships, as defined by reciprocity and commitment between individuals who are more or less equal, usually begin to develop during the preschool years with the onset of parallel play. Gradually, between ages 3 and 5, play becomes more cooperative and reciprocal, and by middle childhood, competition becomes an important part of social relationships, especially for boys (Eccles, Roeser, Vida, Fredricks, & Wigfield, 2006). Children's friendships are primarily same-sex at all ages from the preschool years through adolescence. They are based on common play interests and the attraction that emanates from similarities between self and others (Davies, 2011). There is also a biological influence, with fetal testosterone levels linked to the development of sex-typical play in both boys and girls, with higher levels of prenatal testosterone linked to increased male-typical play in boys (Auyseung et al., 2009).

In a review of the development of social relationships, Harter (2008) describes the importance of having both *vertical relationships* (i.e., attachments to individuals with greater knowledge and social power) and *horizontal relationships* (i.e., relationships in which individuals have equal amounts of social power). Whereas vertical relationships provide security and protection, horizontal relationships allow children to elaborate skills with individuals more or less similar to themselves. These relationships are seen as *bidirectional,* because both the children and the relationships change as a result of the interactions. As a child gets older, for example, the form of parent–child interactions changes from primarily taking care of the child physically to giving verbal instructions to sharing information. It is within the context of these relationships that the complexities of cooperation and competitiveness are mastered, and "intimacy" in social relationships is first achieved (Hartup, 1989; Harter, 2008).

There is substantial evidence that having friends is a *developmental advantage* (Ripke, Huston, Eccles, & Templeton, 2008); success with peers is associated in general with better psychological adjustment and school achievement (Campbell, 2002). Because of their intensity and equality, friendships provide an optimal context for learning certain social skills, such as cooperation, conflict resolution, and intimacy. Harter (2008) points out that although close relationships with other children may not be developmental necessities, being disliked by peers is an important risk factor. Low peer status (peer rejection and unpopularity) often leads to physical or verbal victimization, such as being kicked, hit, punched, or called mean names (Cullerton-Sen & Crick, 2005), as well as "relational victimization" (i.e., behaviors intended to harm or hurt others via damage to interpersonal relationships), such as spreading malicious gossip or using social exclusion rumors (Lafko, Murray-Close, & Shoulberg, 2015). Approximately 10–20% of children are repeatedly victimized by peers, with even more experiencing periodic victimization (Graham & Juvonen, 1998; Solberg & Olweus, 2003). Low-status children may be particularly targeted for bullying if they incite their peers through aggressive behavior (Estell, Farmer, Pearl, Van Acker, & Rodkin, 2008) or, conversely, if they are socially withdrawn, anxious, passive, or submissive (Boivin, Petitclerc, Feng, & Barker, 2010).

Both peer rejection and victimization are consistently related to later adjustment problems and psychopathology (Card & Hodges, 2008; Coie, Dodge, & Lynam, 2006; Ostrov, 2010). Longitudinal research has found a number of cognitive, biological, and social risk factors for peer rejection and victimization, including behavior problems at school entry (Hanish & Guerra, 2004), aversive interpersonal interactions (Buhs & Ladd, 2001), emotional dysregulation (Bierman, Kalvin, & Heinrichs, 2015), physiological reactivity (Lafko et al., 2015), characterological self-blame (Schacter, White, Chang, & Juvonen, 2015), inability to deflect or avert negative treatment (Juvonen & Gross, 2005), internalizing problems (Reijntjes, Kamphuis, Prinzie, & Telch, 2010), and aggression (Prinstein, Cheah, & Guyer, 2005). Just as there are multiple factors leading to peer rejection and victimization, the immediate and long-term outcomes are individually determined and have been associated with internalizing behavior problems and depression (Schwartz, Lanford, Dodge, Pettit, & Bates, 2015), loneliness and withdrawal (Boivin, Hymel, & Bukowski, 1995), anxiety (Schwartz, 2000), academic problems (Schwartz, Gorman, Duong, & Nakamoto, 2008), and delinquency (Snyder et al., 2003).

Just as the victims of bullying are at risk for later adjustment problems and psychopathology, the perpetrators of bullying are also at risk for negative outcomes, particularly conduct problems and depression. The pathways to engaging in aggressive behavior toward one's peers are not fully understood, but difficulties in emotional regulation, the lack of prosocial skills, and conflict resolution deficits have been identified as important risk factors (Wekerle, Wolfe, Dunston, & Alldred, 2014). Children who have been physically abused and those who witness violence between parents are more likely to experience problems in these areas. as seen in increased physical and verbal aggression and hostility toward their peers. They are just as likely to respond with anger and aggression to friendly overtures or distress from peers as they are to confrontational gestures from peers (Teisl & Cicchetti, 2008). However, children who engage in relational aggression often have positive peer relations and friendships (Archer & Coyne, 2005). These friendships have both positive qualities (e.g., caring, companionship and intimacy) and negative qualities (e.g., conflict and lack of conflict resolution). The negative friendship qualities have been shown to mediate associations indirectly between middle childhood relational aggression and future depressive symptoms and risky behavior in adolescents (Kamper & Ostrov, 2013).

Sexual Development

Although a child's genetic sex is determined at conception, differentiation of male or female phenotype does not begin until about the sixth or seventh week of pregnancy. Fetal sexual development involves a complex interaction between genetic and hormonal processes, and there is evidence that the interaction between these hormones and the fetus brain is the basis for the development of sexual orientation (LeVay, 2011). However, cultural forces influence how sexual orientation is expressed in different cultures and across the span of history. This is evidenced in the recent changes in U.S. laws on sexual orientation and the rights of people who are gay, lesbian, bisexual, or transgender.

It is generally recognized that the physiology for sexual arousal and orgasm, and the capacity for various sexual behaviors, are present at birth. For example, fetuses suck their fingers and toes, and newborn male babies have penile erections, whereas female babies are capable of vaginal lubrication. Given that there are few physical changes in sexual development during infancy and early childhood, there are no established developmental milestones. Despite the lack of physical changes, there are important developments in the psychosexual area during early childhood. For example, most children begin to engage in behaviors and hold preferences that are consistent with their physical gender by the preschool years (2–4 years). For some children, however, there is a significant incongruity between their biological sex and preferred gender. The term *transgender* is typically used to describe individuals whose gender self-identification does not match their birth-assigned gender. These children express a firm desire to be (or a belief that they are) members of the opposite sex, and are preoccupied with activities strongly associated with the opposite sex. Previously, these children often received a diagnosis of gender identity disorder, which is no longer considered a disorder (APA, 2013); furthermore, attempts to change a child's discordant gender identity are considered unethical. One study found that a group of 101 transgender youth had no hormone imbalance (i.e., hormone levels were consistent with the gender they were assigned at birth) but, on average, they identified a firm and persistent discrepancy with their assigned gender by the age of 8 (Olson, Schrager, Belzer, Simons, & Clark, 2015). Transgender youth are at particularly high risk for depression, anxiety, and suicide, and are increasingly seeking sex reassignment when they reach puberty. This involves the use of synthetic hormones that depress those produced by the body during puberty in order to delay physical changes in the body.

Children are very curious about their own bodies and those of others, and engage in overt and covert sexual behaviors. In a survey of parents of nonabused children ages 2–12 years, for example, Friedrich, Grambsch, Broughton, Kuiper, and Beilke (1991) found that although some behaviors were reported relatively rarely (e.g., puts mouth on sex parts, inserts objects in vagina/anus, imitates intercourse, masturbates with an object), all of the 44 sexual behaviors listed on their questionnaire were demonstrated by at least some children. The types of sexual behaviors to be expected at different ages are summarized in Table 1.1.

Masturbation, one of the most common behaviors seen in young children (Schroeder, 2011), has been observed in infants as young as 7 months. During the first 2 years of life, masturbation appears largely related to general curiosity about one's body, but gradually children discover that genital stimulation results in particularly pleasurable sensations. Compared to girls, boys are generally observed to masturbate earlier, more frequently, and to masturbate socially, in groups of two or more, whereas girls tend to engage in this behavior alone (Routh & Schroeder, 1981). As children get older, masturbation is generally done in private, so it is difficult to determine whether it increases or decreases with age. Despite parent concerns, there is no evidence that masturbation is harmful, and it is seen by many as a viable sexual activity throughout the lifespan. It is also seen as an important developmental step in becoming reliably orgasmic in adult partner sex (Haroian, 1991). However, masturbation that interferes with other activities or causes physical harm should be considered abnormal. In other instances, whether or not masturbation constitutes a "problem" is in large part a function of family, societal, and cultural attitudes. There is agreement among professionals that the best way to handle childhood masturbation is to teach the child where and when it is appropriate to engage in this "private" behavior (Schroeder, 2011).

Sexual play with peers is very common among preschool- and school-age children, and may involve relatively adult-like sexual activities, such as genital fondling, oral–genital contact, insertion of objects in genitals, or attempts at sexual intercourse (Lamb & Coakley, 1993).

Sexual encounters between siblings appear to be similar to those between friends in the types of activities involved, the motivations associated with the interactions, the ages at which they occur, and the perception of the experiences as relatively positive or normal. Although most childhood sexual experiences with peers and sibling are viewed positively, some involve coercion (persuasion, manipulation, or force) of some type, and the more coercion involved, the less likely the experience is to be viewed positively (Finkelhor, 1981; Lamb & Coakley, 1993).

While sex play among children may not be surprising, it is also true that nonabusive sexual encounters between children and adults are quite common. Many sensual and possibly erotic encounters between the infant and mother (and other caregivers) occur in the context of nurturant caregiving, beginning at birth and continuing throughout the years. Indeed, these early experiences of touching and physical affection are essential for a child's healthy development. The important clinical issue is to determine when children's sexual interactions are developmentally appropriate and when they are inappropriate or abusive. Preschool children, for example, can be expected to touch the genitals or breasts of familiar adults or children, but it is a matter of concern if they do this with unfamiliar adults or children and ask/demand to be touched. Similarly, early elementary school-age children can be expected to “play doctor,” but it is of concern when a child frequently engages in this behavior or forces another child to engage in sex play.

Adolescence is a transition period between childhood and adulthood that occurs over a number of years, with significant changes in physical, cognitive, social, and self-concept development. Physical development involves a growth spurt and sexual maturation (puberty). There is a great deal of individual variation in the growth spurt, but it usually occurs around ages 9–10 years for girls and 10–12 years in boys. The adolescent grows taller and heavier, and begins to take on adult appearances, including breast and genital development, widening of the hips, appearance of pubic hair, and changes in voice. The onset of the menstrual period usually occurs 2 to 3 years after breast development. During sexual maturation, the presence of higher and more variable sex hormones increases sexual interest, and relationships between sexes become more emotionally and sexually intimate. The perceived benefits of engaging in sexual activities are increased, and the perceived costs are decreased.

Some children have either *precocious puberty,* which is defined as girls beginning puberty before the age of 8 and boys before the age of 9, or *delayed puberty,* which is defined as girls having no breast development by the age of 13 years and boys no testes development by the age of 14 years (Barker & Kappy, 2011; Fuqua & Rogol, 2013). Puberty takes 3–5 years to complete, so there is great variation in its development. The causes of precocious or delayed puberty are largely unknown, but in some cases there is an organic cause (e.g., the release of estrogen or testosterone without the involvement of the brain hormone that normally triggers puberty or congenital adrenal hyperplasia; McVeigh, Guillebaud, & Homberg, 2013). Girls, particularly African American girls, are more likely to have precocious puberty than boys, who are more likely to have delayed puberty (Fuqua, 2013). Obesity and exposure to sex hormones (e.g., creams or ointments with either testosterone or estrogen) increase the risk for precocious puberty, and obesity can also delay puberty (McVeigh et al., 2013). Regardless of causes, precocious or delayed puberty interacts with other social and psychological factors in ways that have the potential to alter a child’s developmental course, such as depression and short stature as adults. For boys who have precocious puberty, the increased height and weight enhance their ability to compete in sports, get more positive feedback from adults, and be considered more attractive by their peers. These advantages result in higher self-esteem, greater confidence, and greater social maturity (Burnett, Thomson, Bird, & Blakemore, 2011). In contrast, boys who mature late tend to be less popular, less confident, and more withdrawn, and these effects often persist into adulthood (Burnett et al., 2011). For girls, the impact and timing of puberty is quite different than it is for boys. Late-maturing girls are more in step with the boys in their peer groups and therefore are not as likely to experience significant adjustment problems. In contrast, girls who mature very early are at risk for a number of behavior problems, both internalizing and externalizing (Burnett et al., 2011). Some girls withdraw and become less popular among peers, while others engage in precocious sexual behaviors, including sexual intercourse. This may be the result of being perceived as older and exposed to sexual advances that are not appropriate for their chronological age and level of social–emotional adjustment.

A major task for parents is teaching their children about sexuality. Parents are the primary and most influential sex educators for their children, which involves teaching attitudes, values, and feelings about being male or female, and about relationships and respect for oneself and others. Furthermore, there is no evidence that providing explicit information on sexuality encourages children to engage in these behaviors; rather, the more information children have about sexual issues, the better prepared they are to deal with their own sexuality, as well as sexuality in the media, and protect themselves from unwanted or abusive sexual encounters.

VULNERABILITY AND RESILIENCE

Children are viewed simultaneously as extremely vulnerable and wonderfully resilient. Given their cognitive, physical, and social limitations, children are known to be especially vulnerable to adverse environmental conditions; as such, they are protected by laws against abuse, neglect, and exploitation, and provided with early intervention programs such as Early Head Start/Head Start, the federally funded programs for children at risk from birth to 5 years of age. On the other hand, children are also seen as behaviorally and emotionally resilient, in part because of the developmental process of continual change and adaptation that characterizes childhood. We might ask, “What makes some children more vulnerable or at risk for developmental and/or emotional/behavioral problems?” or, conversely, “Why do some children grow up to be competent and productive adults, despite having experienced conditions and stresses that are known to have adverse effects on development?”

The answers to these questions are difficult. We know that children with similar histories may have different outcomes, and that children with similar outcomes may reach them by different developmental pathways (Rosenberg & Yi-Frazier, 2016; Rutter, 2012, 2015; Rutter, Kim-Cohen, & Maughan, 2006). It is most helpful to take a multivariate, cumulative, and dynamic approach to vulnerability and resilience, in which individual qualities of the child, parent and family, and social/environmental factors interact over time to exacerbate or moderate the effects of adversity at any given time. Rutter (2015) points out that what contributes to psychological vulnerability for an individual child is not an isolated life event or stressor, but rather an aggregated accumulation of stressful events. Similarly, it is recognized that protective factors are also on a continuum, and that when accumulated and present across time, these factors can increase the probability of a positive outcome for children in high-risk situations (Masten & Wright, 2010). Thus, the accumulation and interaction of risk and protective factors, and the identification of areas of strength and vulnerability at any specific point in development, are the critical foci for assessment and treatment.

Risk and Protective Factors

The field of developmental psychopathology merges our knowledge of typical development with clinical child psychology in order to give us a better understanding of the interplay of risk and protective factors during the course of children's development. "Risk factors" in persons or environments result in a heightened probability for the subsequent development of a disease or disorder; conversely, "protective factors" are the attributes of persons, environments, situations, and events that support the development of adaptive abilities and appear to temper predictions of psychopathology (Masten, 2007; Rutter, 2015; Sameroff, 2006).

One way of categorizing risk factors is to view them as (1) established risk, such as a specific genetic disorder (e.g., fragile X syndrome, Down syndrome); (2) biological risk (e.g., poor prenatal care, drug and/or alcohol abuse by the mother during pregnancy, prematurity, anoxia, and low birthweight); and (3) environmental risk (e.g., poor responsivity or lack of sensitivity by a parent to a child, low level of language stimulation, or poverty) (Odom & Kaiser, 1997). Protective factors may be categorized in the same way.

Research in developmental psychopathology has identified many environmental factors that directly or indirectly affect children's resistance or vulnerability to stress (Carta et al., 2001; Luthar, 2006; Maughan & Collishaw, 2015; Rolf, Masten, Cicchetti, Nuechterlein, & Weintraub, 1990). These are summarized in Table 1.2. The clinician must also understand the complex interplay between and among these risk and protective factors. Chronic life stress, for example, is associated with increased adjustment problems among children with few protective factors available to them, but it has little effect on children with greater numbers of protective factors (Sroufe et al., 2005). Moreover, the association between risk and protective factors and adjustment appears to be stronger for boys than for girls (Greenberg, Lengua, Coie, Pinderhughes, & the Conduct Problems Research Group, 1999; Sroufe et al., 2005). As the number of risk factors increases, so does the likelihood of developmental or psychiatric problems. In an early study, Sameroff, Seifer, Barocas, Zax, and Greenspan (1987) showed that when the number of risk factors increased from between two and four to seven or eight factors, the IQ in otherwise similar 4-year-old children was 24 times more likely to be under 85. Other studies have supported this link between the number of risk factors and psychological adaptation, self-competence, problem behaviors, involvement in positive activities, and academic performance (Furstenberg, Cook, Eccles, Elder, & Sameroff, 1999; Sroufe et al., 2005).

TABLE 1.2. Risk and Protective Factors in Child Development

Risk factors	Protective factors
Child characteristics	
Medical problems	Good physical health
Genetic disorders	Absence of genetic disorder
Birth complications	Uncomplicated birth
Prematurity	Full-term birth
Being male	Being female
Difficult temperament	Easy temperament
Emotional dysregulation	Good emotional regulation
Low intelligence	High intelligence
Uneven development	Even development
Extremes of activity level	Moderate activity level
Attention deficit	Developmentally appropriate attention
Language disorder or delay	Normal language development
External locus of control	Internal locus of control
Physical unattractiveness	Physical attractiveness
Being firstborn	Being later-born
Poor coping strategies	Flexible coping strategies
Social skills deficits	Good social skills
Peer rejection	Friendships
Insecure attachment	Secure attachment
Poor academic achievement	High academic achievement
Poor self-esteem	High self-esteem
Family/environment characteristics	
Single parent	Two parents
Many children	Fewer children
Marital conflict	Family cohesiveness
Disagreement over child rearing	Consistent discipline
Chronic poverty	Higher socioeconomic status (SES)
Poor social support network	Good individual and agency support
Unemployment or underemployment	Stable employment
Inadequate child care resources	Adequate child care resources
Stressful life events	Low stress
Urban environment	Rural environment
Chaotic home environment	Consistent, stable home environment
Negative school environment, bullying, peer rejection, socially isolation	Supportive friendships, relationships with supportive adults, socially acceptable extracurricular activities

Parent characteristics	
Depression, schizophrenia, or substance abuse	Good psychological adjustment
Low intelligence	High intelligence
Fewer years of education	More years of education
Teenage mother	Mature mother
Insensitive/unresponsive parenting	Sensitive/responsive parenting
Unavailability	Availability
Low self-esteem	High self-esteem
Poor parenting models	Good parenting models
Avoidant coping style (denial)	Flexible coping style
Hypercritical	High nurturance/warmth
Inappropriate developmental expectations	Knowledge of developmental norms
Overly harsh or lax discipline	Authoritative discipline
Poor supervision of child	Close supervision and monitoring
Poor physical health	Good physical health

Masten and Coatsworth (1998), summarizing the research on resilience in children, stated that the two variables most consistently found to differentiate resilient from vulnerable children are good intellectual functioning and a close relationship with a caring parental figure. Other protective factors include (1) the child (e.g., an easygoing, sociable temperament), (2) family structure (e.g., demographics, connections to an extended family support system), (3) school (good quality), (4) peers (e.g., peers with prosocial values, participation in socially acceptable extracurricular activities), and (5) supportive contacts with adults outside the family (Greenberg & Riggs, 2015). Parenting that combines consistent, highly structured, age-appropriate discipline combined with warmth and sensitivity, high expectations for behavior and academic achievement, and a strong sense of parenting efficacy has also been shown to buffer the effects of risk (Davies, 2011; McBride-Murry & Brody, 1999; Sanders, 2012).

The parent–child relationship is a critical factor in determining both vulnerability and resilience among children. Viewed in a broad context, this relationship is influenced by child characteristics (e.g., sex, intelligence level, temperament, and biological status), which interact with parental, familial, and environmental characteristics to predict the path of development for individual children (Belsky & de Haan, 2011). The child-rearing practices of parents certainly constitute an important component of this configuration: Parent behavior can set the stage for children to develop and use coping skills that make them more resilient, or, conversely, place them at increased risk for problems. Table 1.3 summarizes the various determinants of parenting. Research related to the most important of these is discussed next.

TABLE 1.3. Predictors of Parenting Styles and Components of Dysfunctional and Optimal Parenting

Predictors of parenting styles	Components of dysfunctional parenting	Components of optimal parenting
• Attitudes and expectations • One's own parenting models • Education • Characteristics of the child: conduct problems, activity level, developmental changes, temperament, biological status • Parental mental health (esp. depression), substance abuse • Marital relationship (especially ongoing conflict) • Social support (especially insularity—few friends and frequent, highly aversive contact with relatives and helping agencies) • Low SES • Unemployment	• Uninvolved and not responding to child with sufficient warmth and stimulation • Overly harsh and controlling • Unable to set reasonable expectations and limits • Attends to and reinforces inappropriate behavior while *not* attending to appropriate behavior • Vague or attacking in communication with child • Doesn't listen to child • Inconsistent and/or inept in handling situations that require punishment • Too gentle, lengthy, or delayed in dealing with misbehavior • Disorganized family structure and behavioral chaos • Maltreatment	• Enforces rules consistently • Has age-appropriate expectations • Reinforces appropriate behavior • Accepts and nurtures child • Models appropriate behavior, adaptive coping strategies to stress • Assigns age-appropriate responsibilities • Provides developmentally appropriate stimulation • Monitors child's activities • Provides reasons for rules/limitations

Note. Data from Davies (2011); Feldman and Masalha (2007); Kendziora and O'Leary (1993); and Werner (2000).

Parenting Practices

Determinants of Parenting

Parents' Developmental History

The influence of the developmental histories of parents, especially their own parenting histories, on parenting styles is demonstrated most clearly in studies of abusive parents. These studies show that parents who were mistreated during childhood are more likely than nonmistreated parents to mistreat their own children (Wekerle et al., 2014). However, the influence of parenting history has also been demonstrated for "typical" parents (Rodriguez & Sutherland, 1999). Parenting history may have a direct effect on current parenting behavior through modeling (i.e., we treat our children as we were treated by our parents) or inverse modeling (i.e., we are determined not to do to our children what our parents did to us) (Muller, Hunter, & Stollak, 1995).

An early study by Crockenberg (1987) illustrates how parenting history and social support are both important in determining current parent behavior. She found that adolescent mothers who had been rejected as children were angrier and more punitive with their own children than were nonrejected adolescent mothers. The relationship between early rejection and punitive parenting practices was, however, moderated by current levels of social support: Rejected mothers with good support were less punitive than those with low levels of support. Crockenberg concluded that parenting history has an important but not necessarily a determining role in the way mothers care for their children; early negative experiences of parenting can be overcome by current supportive relationships.

Parents' Psychological Resources

Parents with severe mental disorders (e.g., schizophrenia, bipolar disorder, depression) have difficulties establishing secure or appropriate relationships with their children and have high rates of child abuse and neglect (Gratz, Tull, Baruch, Bornovalova, & Lejuez, 2008). Maternal depression is relatively common among mothers of young children and is associated with poor child adjustment, which illustrates the importance of parents' mental health status in determining how they interact with their children. For example, in a nationally representative sample, McLennan, Kotelchuck, and Cho (2001) found that 24% of mothers of 1- to 2-year-olds and 17% of mothers of children between ages 2 and 3 years reported elevated depressive symptoms. These children are at high risk for establishing insecure attachments, with rates ranging from 55 to 87% (Goodman & Brand, 2009; Teti, Sakin, Kucera, Corns, & Eiden, 1996). Mothers who are depressed engage in a variety of negative parental behaviors: increased criticism, physical punishment, and aversive responses to children (Bugental et al., 2010); avoidance of confrontation and lack of success in controlling child behavior (Crittenden, 1993); and perceptions of increased child behavior deviance (Bugental, Lyon, Lin, McGrath, & Bimbela, 1999). They also show less physical affection, play less with their infants, and provide less stimulation (Davies, 2011).

The process by which maternal depression influences children's behavior and/or development is theorized to be indirect; that is, depressed mothers perceive their children more negatively, which leads to increased criticism and punishment, resulting in child behavior problems (Lavigne, Gouze, Hopkins, Bryant, & LeBailly, 2012). It may also be the case, however, that the effects of depression on children are direct: Depressed mothers simply may not have the psychological resources necessary for effective parenting, which results in child behavior problems. In a longitudinal study of preschool children with behavior problems, Egeland, Kalkosski, Gottesman, and Erickson (1990) provided evidence for this direct link. They found that mothers whose levels of depressive symptomatology decreased over time had children whose functioning improved; conversely, mothers whose depression increased had children who functioned more poorly. These authors also cited a substantial research literature linking maternal depression with non-nurturing caretaking behavior (e.g., emotional unavailability, poor communication, inconsistency, hostility, and overinvolvement).

Campbell (2002) points out, however, that maternal depression and other forms of parental psychopathology often occur in a context of multiple risk factors, some or all of which may account better for children's adjustment than parental mental health alone. For example, life stress and daily hassles can have a negative effect on parental mood, which depletes parents' resources, which, in turn, leads to poor parenting and subsequent adverse child outcomes (Moore, Redd, Burkhauser, Mbwana, & Collins, 2009). In addition, the symptoms of irritability, sadness, hostility, and negativity found in depressed mothers are common among highly stressed parents who are not clinically depressed (Evans, Boxhill, & Pinkava, 2008).

Child Characteristics

The fact that children's characteristics have an important impact on their relationships with their parents is well accepted. Biological conditions including genetic syndromes (e.g., fragile X syndrome, autism, Down syndrome), prematurity, and *in utero* exposure to teratogens place the child at increased risk for insecure attachment and adjustment problems (Aylward, 2009). Mothers of infants born prematurely, for example, report more behavior problems in their infants and more parenting stress than mothers of full-term infants (Aylward, 2009; Halpern, Brand, & Malone, 2001). Of all such characteristics that might influence the parent–child relationship, child temperament has engendered the most research. Not only are difficult infants more difficult to parent and easy infants easier to parent, but children with different temperamental characteristics also respond differently to the same environment. Rothbart and Bates (2006), for example, found that irritable infants with angry, punitive mothers were more likely to become angry and noncompliant and to have lower self-confidence in later development than were easy infants with angry, punitive mothers.

In a study of high-risk African American children, McBride-Murry and Brody (1999) found that parenting protective factors, such as high expectations for child behavior and academic performance and consistent household routines, buffered the effect of difficult child temperament on the children's ability to self-regulate their behavior. Consistent with this work, Tschann, Kaiser, Chesney, Alkon, and Boyce (1996) found that preschoolers with difficult temperamental characteristics who lived in families with high levels of conflict had the most adjustment problems, both externalizing and internalizing. Children with easier temperaments had fewer such problems, regardless of the level of family conflict. This research highlights the most important issue for prevention and/or intervention—that is, the interplay among the child's unique temperamental characteristics, the parents' capabilities and resources, and the broader environment's ability to support the child's development within this family context.

Other characteristics of children that have been shown to have an effect on parenting are (1) the presence of conduct problems, (2) activity level, and (3) developmental changes (Eisenberg et al., 2006). Children with conduct problems elicit more negative feedback and are more noncompliant, regardless of who is interacting with them (i.e., parents or other caregivers) (Frick, 2009). Similarly, increased activity level (or underactivity in some circumstances) in children has been shown to result in increased parental harshness (Lavigne et al., 2012). Finally, parents must adapt to the developmental changes in their children. Parenting practices that are appropriate for a 2-year-old, for example, are not necessarily appropriate for older children (Aguilar, Sroufe, Egeland, & Carlson, 2000).

Social Support Networks

The extent of parents' social support networks—or, more precisely, the match between the support desired by parents and the support they actually receive—has also been shown to influence how parents care for their children. Positive perceptions of social support are associated with parental physical and mental well-being, which in turn affects parenting behavior (Feldman & Masalha, 2007). Social support can have both direct and indirect effects on parenting behavior. For example, being loved by a spouse or partner can have a beneficial effect on parents' mental health and sense of well-being in general; it can also provide concrete resources (financial help, child care, etc.) that enhance parenting abilities (Orthner, Jones-Sanpei, & Williamson, 2004). Ongoing involvement with extended family, friends, neighbors, shared child care, religious affiliation, and access to health and social services can all moderate the stresses of parenting and adverse circumstances (Oberlander & Black, 2011; Orthner et al., 2004; Werner, 2000).

Marital Relationship

For currently married parents (or committed partners), the relationship can be considered a source of either support or stress and may be a critical factor influencing parental behavior. A positive relationship between parents increases the alliance between parental practices, promotes a cohesive family that supports a child's development, and increases the family's resiliency in handling acute or chronic adversity (Feldman & Masalha, 2007; Sanders, 2012; Werner, 2000). Most interesting is a study by Howes and Markman (1989) showing that the quality of the marital relationship *before* the birth of the child influences the child's functioning 3–5 years later!

A number of studies have documented the relationship among marital conflict, negative parenting behaviors, and childhood problems (Sturge-Apple, Davies, & Cummings, 2006; Lansford, 2009). Davies and colleagues found that chronic marital conflict diminishes a child's emotional security, which in turn increases dysregulation, negativity, and aggression (Davies, Sturge-Apple, Cicchetti, & Cummings, 2008; Sturge-Apple et al., 2006). Parents who "put the child in the middle" by requiring him or her to take sides against one parent predict more behavior problems, as well as shame and guilt (Kelly, 2000). Feeling responsible for parental conflict appears to be particularly damaging in terms of physiological regulation and adjustment. Children of parents in high-conflict marriages have more active response systems, as measured by cortisol levels, which mediates the relationship between blame for parental conflict and increased internalizing problems (Lucas-Thompson, Lunkenheimer, & Dumitrache, 2015).

Divorce is stressful for most children and families, with changes in residence and schools; decreased economic resources; a custodial parent returning to work or increasing work hours; parental depression; and parental dating, remarriage, and stepfamily relationships. Children often exhibit behavioral problems before a divorce and commonly experience anxiety, depression, oppositional behaviors, and academic problems after a divorce. Most children, however, make a positive adjustment within a period of 2 years following a divorce (Dunn, 2007).

Research has shown that children do better in adequately functioning single-parent families or stepfamilies than they do in high-conflict two-parent families (Amato, 2001). A number of factors may positively influence a child's adjustment: (1) ongoing regular contact with the noncustodial parent, (2) parents' ongoing emotional availability, (3) supportive relationships with grandparents and extended family, and (4) low parent conflict. The greatest risks to a child after a divorce are exposure to continued ongoing parental conflict (e.g., hostility, recriminations, court battles, and explicit or implicit requirements that the child ally with one parent against another); the mental health of the custodial parent, including substance abuse; and the loss of the father in the child's life, particularly for boys (Davies, 2011).

Homosexual Parents

Another area of interest to clinicians is the adjustment of children raised by gay or lesbian parents. While many of these children are born in the context of a heterosexual relationship in which one parent subsequently comes out as homosexual, an increasing number of lesbian and gay couples are seeking to adopt children, provide foster homes, or use artificial insemination to have children. Thus, clinicians are increasingly being asked about the impact on children of living in these "nontraditional" households. Given the recent U.S. Supreme Court ruling (*Obergefell v. Hodges,* 2015) that legalized marriage of same-sex couples, this is likely to be a topic of continuing interest and research.

Historically, the assumption was made that growing up with gay or lesbian parents would have a negative impact on children's development in general and their psychosexual development in particular, including problems with gender identity, gender role behaviors, and especially sexual orientation. However, the majority of data indicate that children raised by homosexual parents are at no greater risk as adults for identifying themselves as homosexual than expected in the population at large (e.g., Fedewa, Black, & Ahn, 2015), indicating that the primary basis for a homosexuality orientation is biological. Despite this scientific consensus on the issue of sexual orientation, there is some evidence to suggest that intergenerational transfer of sexual orientation may occur, especially for female children of female parents (Cameron, 2006; Schumm, 2010). Schumm statistically evaluated 10 narrative studies involving family histories of 262 children of gay fathers and lesbian mothers and found that the biological daughters of lesbian mothers were more likely (33–57%) to report non heterosexual identities, indicating that parental and societal influences may influence girls' non heterosexual identities and/or behavior. For boys, however, Schumm reported that some of the analyses for intergenerational transfer were not significant, indicating that the sexuality of boys raised by lesbian or gay parents may be less influenced by parental and social factors than that of girls.

Fedewa and colleagues' (2015) meta-analysis of 33 published and unpublished studies (*N* = 5, 272 children) related to the adjustment of children living with homosexual parents compared to children living with heterosexual parents, found no significant differences in cognitive abilities, academic achievement, psychological adjustment, child sexual orientation, and gender identity. This supports previous work, which found that these children also have typical relationships both with their peers and with adults of both sexes (Patterson, 1992, 1997). Furthermore, Patterson found no evidence that children with homosexual parents are more vulnerable to being sexually abused, either by their parents or by the parents' acquaintances, than are children with heterosexual parents.

Not surprisingly, the quality of relationships within the family is more important than the sexual orientation of the parents in influencing children's development (Chan, Raboy, & Patterson, 1998; Rostosky & Riggle, 2015). If parents are open about their sexual orientation, and this is accepted by other significant people in the child's life, the mental health of both parents and the child is improved (Rostosky & Riggle, 2015). Filoso (2006) found that lesbian women perceived parenting remarkably like their heterosexual counterparts, with the exception that lesbians gave a significantly higher priority on the importance of education for their children. In summary, research indicates that children raised by homosexual parents are at no greater risk for academic or psychosocial problems than are children growing up in more "traditional" households (Chan et al., 1998; Fedewa et al., 2015; Golombok & Tasker, 1996; Rostosky & Riggle, 2015).

Corporal Punishment

Despite a growing body of research spanning decades that points to an association between corporal punishment and higher levels of aggression, behavior regulation difficulties, and other negative outcomes, the use of physical punishment is extremely common in the United States (e.g., Berlin et al., 2009; Gershoff, 2010; Lansford & Dodge, 2008; MacKenzie, Nicklas, Waldfogel, & Brooks-Gunn, 2012). Corporal punishment may be viewed on a continuum from a mild swat on the buttocks to a brutal beating. The consensus in the United States is that physical punishment of a child is only of concern when it causes serious harm, which is then denoted as "abuse." However, it is often difficult to distinguish between what is "reasonable" physical punishment and what is abuse. The United States is one of the few advanced industrialized countries that has not banned corporal punishment (EPOCH-USA, 2010), with national surveys indicating that over 90% of parents reporting the use of physical punishment at least once, and 11–35% of parents reporting hitting their infants (ages 0 to 1 year). The prevalence of corporal punishment increases to a peak of 94% among parents of children ages 2–4 years (Berlin et al., 2009; Straus & Stewart, 1999; Wissow, 2001). Prevalence rates decline rapidly after age 5, but over half of the parents report hitting their 12-year-old children, and 13% said they hit their 17-year-olds. The severest form of punishment—hitting with an object (e.g., a belt or paddle)—is most common for children between ages 5 and 12 years (25% of parents). Physical punishment is most prevalent among African American parents, those living in the South, parents of boys, cultures that endorse spanking, families with more children in the home, mothers who are young or inexperienced, parents who have symptoms of depression or anxiety, or are single and experience more parental or life stress (Berlin et al., 2009; Chung et al., 2009; Deater-Deckard, Lansford, Dodge, Pettit, & Bates, 2003; MacKenzie et al., 2012).

Mahoney, Donnelly, Lewis, and Maynard (2000) also found that parents of clinic-referred children were more likely to use corporal punishment (spank with bare hand; slap arm, leg, or hand; hit the child on the bottom with a hard object; pinch or shake; slap face, head, or ears) and two to three times more likely to use severe physical aggression (hit the child's body with a hard object; throw or knock the child down; hit with fist or kick hard; beat up; grab neck and choke; threaten with knife or gun) with their children than were parents of nonreferred children. As in the Straus and Stewart (1999) study, the use of corporal punishment in general declined with the age of the child; however, the prevalence of severe physical aggression in particular remained stable across development in the clinic-referred group. Furthermore, although their use of corporal punishment declined with child age, parents of clinic-referred adolescents were twice as likely to use corporal punishment compared to parents of non-clinic-referred teenagers.

The debate about corporal punishment revolves around whether it has harmful effects on children's development. Reviews of research have reported inconsistent results, partly due to how corporal punishment is defined, how outcomes are measured, and confounding factors such as SES level and race. However, a majority of studies have found an association between corporal punishment of children and a variety of adverse effects such as aggression, cognitive deficits, depression, and later spouse abuse (e.g., Grogan-Kaylor & Otis, 2007; Herrenkohl, Sousa, Tajima, Herrenkohl, & Moylan, 2008; Lansford et al., 2014; Straus, Sugarman, & Giles-Sims, 1997). Lansford and colleagues (2014), in a study of 7- to 10-year-old children in eight countries, including the United States, found that corporal punishment increased children's anxiety and aggression over a 2-year period. Although maternal warmth moderated the effect of corporal punishment in some countries, Lansford et al. also found that children whose mothers were high in both warmth and the use of corporal punishment had increased anxiety over time. Moreover, there is a risk of escalation from mild physical punishment to severe physical aggression by parents who rely on physical discipline tactics to control their children. Given the ambiguities regarding where to draw the line between physical discipline and physical abuse, and the potential for negative consequences, the American Academy of Pediatrics (1998, p. 723) states that "physical discipline is of limited effectiveness and has potentially deleterious side effects" and recommend that "parents be encouraged and assisted in the development of methods other than spanking for managing desired behavior."

Parents who use harsh discipline tend to see their children negatively and often perceive their children's behavior (including infants and toddlers) to be intentional, pervasive, and stable over time, holding the child responsible for the outcomes of the behavior. These attributions are beyond what most children are capable of understanding (Davies, 2011). Mahoney et al. (2000) confirmed that the more parents of clinic-referred children perceived their children as being oppositional and antisocial, the more likely they were to use physical punishment. It is possible that frustrated parents resort to physical punishment because they feel that other methods of discipline have not worked to curb their children's aversive behavior. However, the use of physical punishment may act as a model for the child and exacerbate a child's aggressive and antisocial behavior both toward the parents and others outside the home. Mahoney et al. argued that their results are consistent with the concept of coercive cycles that develop and escalate in the interaction between parents and children with conduct problems (Patterson, 1982; Patterson, Reid, & Dishion, 1992); this suggests that causation is probably bidirectional.

In summary, the effects of harsh, punitive, and corporal punishment practices are more harmful than beneficial and can set the stage for mistrust and viewing relationships with hostile intent, therefore decreasing opportunities for positive feedback (Burke, Pardini, & Loeber, 2008; Zahn-Waxler, Shirtcliff, & Marceau, 2008).

These parenting practices can also place a child at risk for anxiety, oppositional behavior, conduct problems, peer problems, developing a negative view of self, and decreased cognitive ability (Gershoff, 2010; Lansford et al., 2014; Straus & Paschall, 2009; Taylor, Manganello, Lee, & Rice, 2010). Additionally, it can increase the risk of overwhelming feelings of helplessness that may lead to affective shutting down or numbing and other characteristics of PTSD and depression (Putnam, 2003; Wekerle et al., 2014).

An important question is: Does corporal punishment accomplish what parents want it to accomplish? That is, does it teach children to behave in a more appropriate manner? Spanking certainly gets children's attention, and initially it may quickly stop inappropriate behavior (Gershoff, 2002), but research suggests that it is not effective over time. The more it is used, the less effective it becomes—in part because children habituate quickly, forcing parents to punish more frequently and more harshly. Parents who spank their children tend to spank them a lot, and many continue to spank as the children grow older, which suggests that children do not learn how to behave as a result of physical punishment (Straus & Stewart, 1999). It is possible that this is the case because spanking does not teach children acceptable alternative behaviors; it simply teaches them what not to do. Moreover, physical punishment models an aggressive way of dealing with problems and indicates that it is OK for a bigger person to hit a smaller one. If the real issue is "How do we teach children appropriate behavior?" then learning principles suggest a number of methods that are more effective than physical punishment. These are discussed in more detail in Chapter 10 on disruptive behavior.

Child Maltreatment

Each year there are more than 3 million reports of child maltreatment to child protective services (Child Welfare Information Gateway, 2015). Large-scale population studies document that 10–25% of children younger than 18 have been physically, sexually, or emotionally abused or neglected by a parent figure (Finkelhor, Ormrod, Turner, & Hamby, 2005; May-Chahal & Cawson, 2005). Based on data from the National Child Abuse and Neglect Data System (Palusci & Covington, 2013) it is estimated that 1,520 children died from abuse and neglect in 2013, and many researchers and practitioners believe that this number is underreported.

For purposes of definition and study it is useful to separate the different forms of maltreatment but, in reality, they often overlap. For example, a child who has been physically abused often is also emotionally abused and/or left without supervision, and a sexually abused child is often emotionally abused via threats of retribution if he or she discloses the sexual abuse. Psychological abuse appears to be the most common denominator across all types of maltreatment and may therefore account for the common developmental effects. In addition, most maltreatment is traumatizing to the child, so the immediate and long-term response to repeated maltreatment reflects posttraumatic symptoms and adaptations (Cicchetti & Valentino, 2006). The greatest detrimental effects occur when the maltreatment is early and/or chronic (Bolger & Patterson, 2001; Davies, 2011). Research indicates that early physical and sexual abuse causes changes in the hypothalamic–pituitary–adrenal axis (HPA) and the secretion of endogenous opioids, resulting in either persistent hyperarousal or dissociation (Schecter & Willheim, 2009; Watts-English, Fortson, Gibler, Hooper, & De Bellis, 2006).

Similar to parents who primarily rely on corporal punishment to control their children, maltreating parents have been described as less flexible, as more punitive, as denying or undervaluing the child's needs, and as abusing the power they have over the child. In addition to these poor parenting skills, the parents have poor coping skills when stressed, a history of being abused, and are faced with a number of risk factors, especially poverty (Cicchetti & Toth, 2015; Glaser, 2002).

Maltreatment affects many areas of development. Severely abused infants have disorganized and disoriented attachments, high arousal, poor affect regulation, and anger (Zero to Three, 2005). Toddlers have higher levels of aggression and anger, and are hostile in situations that do not provoke hostility, while preschoolers are more impulsively aggressive or disruptive, which results in poor social and interactive skills (Darwish, Esquivel, Houtz, & Alfonso, 2001). Chronic maltreatment in school-age children is linked to maladaptive problem-solving skills, cognitive disorganization, poor language development, and lower academic performance (Cicchetti & Valentino, 2006; Howe et al., 2006). Generally, maltreated children have less secure attachments, which results in less behavior oriented to developing competence, less trust in adults, a sense of personal inadequacy, and less empathy toward others (Cicchetti & Toth, 2015). Given their history, they often anticipate aggression and rejection and behave aggressively/negatively, which in turn results in rejection and isolation from peers (Ayoub et al., 2006; Schecter & Willheim, 2009).

A history of parent-perpetrated physical, sexual, and/or emotional abuse is associated with a two- to fivefold increase in the rates of depression diagnosis in adolescence and/or young adulthood (Harkness, Bruce, & Lumley, 2006). Research has shown that adolescents from abusive families perceive their peers as strong sources of tangible belonging and support (Bao, Whitbeck, & Holt, 2000). However, close to one youth in five in the United States reports being the victim of peer bullying (verbal and/or physical assault, ridicule or exclusion) and, the combination of parent-perpetuated maltreatment and peer-related bullying is especially traumatic and may place children at risk for substance abuse and dependence, delinquency, unemployment, early pregnancy, school dropout, physical health problems, and relationship impairment (Cicchetti & Toth, 2005; Sourander et al., 2007). In essence, the adolescents perceive that they are isolated from their support group and that others are unavailable to assist them when they need aid (Holt & Espelage, 2007; Pepin & Banyard, 2006; Seeds, Harkness, & Quilty, 2010).

Interestingly, severe mother-perpetuated maltreatment has been associated with higher levels of tangible support, which in turn is associated with lower levels of depressive symptoms (Baldry, & Winkel, 2004). It appears that adolescents with mothers who abuse them are more likely to seek out other sources of practical aid.

Child neglect is an act of omission versus commission and involves failure to provide for a child's physical and mental health, education, nutrition, shelter, and safe living conditions (World Health Organization, 1999). It may also involve child exploitation, including child labor or sexual exploitation. The effects of neglect are significant and associated with failure-to-thrive symptoms, slowed growth, immature physical development, delays in cognitive and intellectual functioning, difficulties with moral reasoning, passivity or hyperactivity, social–emotional problems with withdrawal, dependence, and social insensitivity (Wekerle et al., 2014). Studies have shown that mothers of neglected children have fewer positive behaviors, less affect, more negative perceptions of their infants, and more insecure attachment patterns (Koenig, Cicchetti, & Rogosch, 2000). These mothers are also described as having experienced more maltreatment (physical, sexual, and neglect) themselves in childhood and adulthood, and more mental illness (Wekerle et al., 2014). The parental risk factors for neglect include fertility (more births, unplanned pregnancies), low maternal self-esteem, impulsivity, lack of social support, daily stress, substance abuse, and poverty status (Schumacher, Slep, & Heyman, 2001). Neglected children are given little support in their developmental progression and are left with few resources to manage everyday or stressful life challenges, which puts them at risk for myriad mental and physical health problems.

Optimal Parenting Practices

Despite the knowledge that many other factors influence children's behavior, we know that parents remain an influence on child behavior and development. Positive parenting abilities have been linked to the level of parental education, the quality of support the parent receives, a positive relationship between parents, shared caregiving between parents and relatives, ongoing involvement with a supportive extended family, family religious faith and participation, and access to health and social services (Feldman & Masalha, 2007; Werner, 2000). Keeping in mind the interrelated environmental factors described earlier, an important question is "What can parents do to ensure more optimal development for their children?" Considerable research has addressed this question, and the major components of optimal parenting are summarized in Table 1.3. Baumrind (1967) first identified an association between *authoritative* parenting (warm, reasonable, nonpunitive, and firm) and positive child behavior. Conversely, overcontrolling or *authoritarian* discipline and undercontrolling or *permissive* discipline were associated with negative child behavior.

Building on this work, Belsky (1984), in an older but still relevant review, described the kinds of parenting at different ages that are thought to promote optimal child functioning. In infancy, cognitive and motivational competence and healthy social–emotional development are promoted by parents' attentive, affectionate, stimulating, responsive, and nonrestrictive caregiving. For preschoolers, high levels of nurturance and affection, accompanied by firm control, foster the development of good social skills, resourcefulness, and achievement motivation. By school age, inductive reasoning, consistent discipline, and expressions of affection are positively related to self-esteem, internalized controls, prosocial orientation, and intellectual achievement.

The importance of parenting styles is highlighted in a cross-sectional and longitudinal study with preschool children who exhibited high and low levels of *callous–unemotional behavior* (CU), defined as deficits in empathy and guilt, insensitivity to punishment, and reward-focused aggression (Waller et al., 2015). These behaviors have a strong genetic predisposition and put children at risk for developing more severe forms of aggressive and antisocial behavior (Frick, Ray, Thornton, & Kahn, 2014). Furthermore, these behaviors are thought to develop largely independent of parenting or are less responsive to parenting (e.g., Oxford, Cavell, & Hughes, 2003). However, Waller et al. (2015) found that parental warmth, affection, and structure moderated the trajectory of both high and low levels of CU, while harsh parenting increased behavior problems for children with both low and high levels of CU behaviors. Thus, parenting styles can modify even seemingly intractable behavior of young children.

Dishion and McMahon (1998) propose parental monitoring as a critical skill that is relevant for parenting from infancy to adolescence, although the specific methods of monitoring change with development. "Parental monitoring" is defined as a set of parenting behaviors involving attention to and tracking of the child's whereabouts, activities, and development. It is designed to enhance parents' awareness of children's activities and to communicate to children that their caregivers are concerned about and interested in what they are doing. Monitoring in infancy includes sensitive and responsive parenting, as well as joint attention to play activities. In the preschool years, monitoring ensures a child's safety and may also be seen in joint attention, with verbal descriptions of the child's activities. Monitoring a school-age child involves keeping track of school achievement, homework, and activities; knowing who the child's friends are; and attending extracurricular activities such as sports events, dance recitals, and school plays. During adolescence, monitoring means knowing where the child is and with whom, tracking school achievement, and attending extracurricular events in which the child is involved (Amato & Rivera, 1999; Coley, 1998; Tamis-LeMonda & Cabrera, 1999).

The involvement of fathers and father figures (stepfathers, adult male friends, and relatives) with children is increasing as more mothers join the work force. A father is more likely to be positively involved with a child if he perceives the birth of the child as a desired event, has participated in the birth process and early care of the infant, has role models for father involvement, has a good relationship with the child's mother, and has employment that is flexible enough to allow him to spend time with the child (Aldous, Mulligan, & Bjornason, 1998; Belsky, 1998; Brown & Eisenberg, 1995). Tamis-LeMonda and Cabrera (1999) reviewed the research in this area and found that for young children, fathers' emotional investment, attachment to children, and provision of resources are all associated with child well-being. For older children, fathers' involvement (attending school meetings and/or parent–teacher conferences) is related to children's academic performance. Moreover, fathers are particularly important in influencing children's socialization and academic success. Specifically, Coley (1998) found that children who perceived their fathers as warm and as providing control had fewer behavior problems in school and engaged in more prosocial behaviors with peers.

In summary, parenting relationships that promote a secure attachment, are warm and supportive, and create a structured environment with appropriate support and challenge across developmental stages give a child protective factors that will help him or her deal with adversity. On the other hand, dysfunctional parenting styles of both fathers and mothers are clearly associated with a variety of child adjustment problems even under the best circumstances. The characteristics of dysfunctional parenting are summarized in Table 1.3.

Other Risk Factors

Poverty

The socioeconomic context of growing up plays an important role in determining the vulnerability or resilience of children. Socially and economically disadvantaged children, for example, are exposed to many more negative life events and are also more adversely affected by these negative life events than are children from more affluent families (Evans, Kim, Ting, Tesher, & Shannis, 2007; Jenkins, Madigan, & Arseneault, 2015; McLoyd, 1998). McLoyd's (1990) *construct of context* asserts that the stress of poverty is much more than worries about money but includes hunger, violence, illness, and accidents. Poverty creates and magnifies many other risk factors that influence the child, such as destabilizing moves, school changes, inadequate nutrition, lack of health and mental health care, neighborhoods that are dangerous and have high crime rates, higher exposure to environmental toxins (e.g., lead, gas/diesel pollutants) and homelessness (Davies, 2011). U.S. Census Bureau (2010) data indicate that 15% of the population was below the poverty line of $22,234 for a family of four, with minorities and single mothers suffering the greatest poverty. In 2010, the total number of children living in poverty was 16.4 million.

The stresses of acute and chronic poverty on children are largely mediated through its impact on their parents, who experience higher rates of depression, substance abuse, divorce, harsh parenting, and child abuse and neglect (Conger et al., 2002; McLoyd, Aikens, & Burton, 2006; Moore et al., 2009). Young children are especially affected by poverty. At the end of 2007, the Children's Defense Fund (2008) estimated that 21% of children from birth to 5 years lived in extreme poverty. Children of immigrants, African Americans, and Hispanics have higher rates of poverty, so they are disproportionately harmed (Conger et al., 2002).

The environmental differences between lower and higher SES childhoods, such as stress, lack of cognitive stimulation, poor nutrition, exposure to lead and other neurotoxins, and so forth, may also have an impact on the brain. Lawson, Duda, Avants, Wu, and Farah (2013) found that parental educational level, a common measure of childhood SES, significantly predicted the thickness of children's prefrontal cortices. This region of the brain is essential to executive functioning, which is associated with children's working memory, problem solving, and executive functioning skills. Hackman, Gallop, Evans, and Farah (2015) found that this relationship stayed constant into middle childhood and was consistent with disparities in SES partly accounted for by children's access to stimulating toys and books, excursions to visit people and places outside the home, and parents who talked a lot to their children. The authors also found that as a family's income grew, so did children's working memory and planning abilities, demonstrating that family SES status and executive functioning fluctuated in tandem.

Despite the horrific environmental conditions and stresses of growing up in chronic poverty, not all children have negative outcomes. A number of child and parent characteristics help buffer the effects of poverty. Studies have shown that two forms of coping strategies are effective in adjusting to both poverty-related stress and other stresses: *primary control coping,* direct efforts to manage stressful situations or one's reactions to it, including strategies such as problem solving, emotional expression, and emotion regulation (Jaser et al., 2008; Wadsworth & Santiago, 2008) and *secondary control coping,* adapting oneself to a stressful situation, including strategies reflecting active acceptance, cognitive restructuring, distracting, and positive thinking (Band & Weisz, 1990; Chen & Miller, 2012). Both primary and secondary coping predict fewer psychological problems in samples of children and adults coping with poverty-related stress. Furthermore, Chen and Miller found that children and adolescents who used the secondary coping strategy, which they call a *shift-and-persist strategy,* had lower levels of interleukin-6, a marker of inflammation that can lead to cardiovascular disease, and a reduced risk of asthma-related problems, obesity, and other health problems. Conversely, a study with ethnically diverse low-income children and families found that disengagement coping strategies such as avoidance, denial, and wishful thinking exacerbated externalizing disorders over time (Wadsworth, Raviv, Santiago, & Etter, 2011). In addition to these effortful coping strategies, they found that two *involuntary stress responses,* responses to stress that occur automatically or without conscious intent, can further exacerbate negative psychological outcomes. *Involuntary engagement responses* (e.g., emotional and physiological arousal, rumination, intrusive thoughts, and impulsive action) exacerbated the poverty-related stress of internalizing symptoms, and *involuntary disengagement responses* (e.g., cognitive interference, escape, emotional numbing, and inaction) exacerbated externalizing symptoms (Wadsworth et al., 2011). This and other research demonstrates the multilayered pathways with which the stress of poverty can affect children and families.

Day Care

Concerns about the effects of day care on the development of children revolve around the question of whether day care should be considered a risk or protective factor for children's development. That is, have negative or positive effects of day care on children's development been documented—and if so, what areas of development are affected, and what factors mediate or moderate these effects?

Research evidence supports both the positive and negative effects of nursery and preschool care. Experimental studies of high-quality day care for economically disadvantaged children have consistently found that these programs enhance children's social, cognitive, and academic outcomes (e.g., Campbell, Pungello, Miller-Johnson, Burchinal, & Ramey, 2001; Love et al., 2005). There is also evidence that these benefits can last into adolescence and adulthood (Campbell et al., 2014; Vandell, Belsky, Burchinal, Steinberg, & Vandergrift, 2010). Correlational studies of economically and ethnically diverse samples have also found that high-quality day care can have a positive effect on cognitive and achievement levels (Côté et al., 2007; Gormley, Gayer, Phillis, & Dawson, 2005; Mashburn et al., 2008). However, the social benefits have been somewhat mixed, with some studies indicating that high-quality day care enhances social development and others finding that longer hours in day care can increase conduct problems (Côté et al., 2007; Howes, Phillips, & Whitebrook, 1992). To better understand these diverse findings, the National Institute of Child Health and Human Development (NICHD) studied aspects of day care that may influence child outcomes.

The NICHD in the 1990s began the Early Child Care Research Network (ECCRN), a 10-site national study that focused on a large economically and geographically diverse group of 1,364 children who were recruited at birth and participated in routine nonmaternal child care (birth to 4½ years) in their communities, including day care centers, child care homes, in-home sitters, grandparents, and fathers. Goals of the longitudinal study were to assess the effects of three distinct aspects of child care on child development: (1) type of nonmaternal child care settings, (2) quantity of time in nonmaternal care, and (3) effects of quality of care.

Researchers found a number of factors associated with high-quality child care, regardless of the setting: small class sizes; low child–adult ratios; nonauthoritarian child-rearing beliefs; and safe, clean, stimulating physical environments (NICHD ECCRN, 1996). The ECCRN study evaluated children on their social–emotional development, cognitive functioning, and achievement development at 4½ years, immediately prior to school entry (NICHD ECCRN, 2002), in the primary grades (NICHD ECCRN, 2005), later in elementary school (Belsky et al., 2007), and at 15 years of age (Vandell et al., 2010). In general, across all ages (i.e., 4½ years to 15 years) it was found that (1) early *high-quality* child care predicted higher cognitive–academic performance and less externalizing problem behaviors; (2) more hours of child care (especially by nonrelatives) predicted more at risk but not clinical levels of externalizing problem behaviors such as assertiveness, aggression, and disobedience; and (3) more experience in center-based child care was related to both better cognitive and language skills, and more problem behavior. These findings are similar to the effects found in other large, national representative surveys (Loeb, Bridges, Bassok, Fuller, & Rumberger, 2007; Magnuson, Ruhm, & Waldfogel, 2007) and demonstrate the benefits of high-quality day care and center-based care, and the potential adverse effects of long hours in child care settings. These results are also consistent with theory and empirical evidence that emphasize developmental continuities; that is, competencies in one period set the stage for and are then carried forward to later periods of development (Bronfenbrenner & Morris, 2006; Burchinal, Peisner-Feinberg, Pianta, & Howes, 2002).

Unfortunately, high-quality day care is generally not affordable or accessible to low-income and working-class parents. The majority of their infants/children receive care in unlicensed home care or center-based licensed care in which the staff may be poorly trained, receive low pay, and have high turnover rates, which effects the children’s sense of stability and continuity (Davies, 2011). In addition, there are not enough available resources for infants and toddlers, children with disabilities, parents who work nontraditional hours, and afterschool care (National Association of Child Care Resource and Referral Agencies, 2009). The lack of adequate resources or the poor quality of resources adds to the multiple risks already impacting these infants and children.

PREVENTION OF PROBLEMS

Protective factors reduce the likelihood of maladaptive outcomes under conditions of risk and build resilience in particular contexts. Like risk factors, protective factors rarely occur alone, but rather involve multiple accumulated protections interacting across time and contexts that may have different outcomes for different children. In addition, protective factors operate at multiple levels, including the child, family, peer, demographic, school, and community levels. The goal of prevention research is to successfully identify intervention programs that link protective factors with positive outcomes that both reduce problem behaviors and are cost-effective (Greenberg & Riggs, 2015). The need for prevention programs is highlighted by the discrepancy between the number of children who need mental health services and the 20% of these children who actually receive treatment (Kazdin & Blasé, 2011; Kataoka, Zhang, & Wells, 2002).

Approaches to prevention involve (1) *universal interventions* that target entire populations (e.g., family programs that target parenting skills or school programs that focus on violence), (2) *selective interventions* that focus on children, families, or communities whose characteristics place them at risk for later problems (e.g., poverty, children of parents who are depressed, children who have limited social skills or have experienced a traumatic event), and (3) *indicated prevention* that is directed at families or children who already show substantial or even diagnostic levels of difficulty. Over the last two decades, there is stronger empirical evidence to support the field of prevention, with programs that decrease risk, increase protection, and reduce emotional and behavioral disorders of children (Catalano et al., 2012; Greenberg & Riggs, 2015; National Research Council and Institute of Medicine, 2009). Reviews of effective evidence-based interventions, classroom- and family-based curricula have shown reductions in anxiety, depression, violence, conduct problems, aggression; those programs that increase resilience of children who experienced events that place them at risk, such as the death of a parent, exposure to war or violence, can be found on a number of Internet sites (e.g., Blueprints for Healthy Youth Development [*www.colorado.edu/cspv/blueprints*], the Cochrane Collaboration [*www.cochrane.org*], and the Campbell Collaboration [*www.campbellcollaboration.org*]). This section briefly highlights universal and selective parenting programs and early intervention programs.

Parenting Programs

The focus on improved parenting has been a common approach to enhancing the development and well-being of both children and parents. Examples of programs for parents of children beginning at birth are the Nurse–Family Partnership (Olds, 2010), Family Foundations (Feinberg, Jones, Kan, & Goslin, 2010), and The Incredible Years Project (Webster-Stratton & Reid, 2010). The Nurse-Family Partnership Program is a nurse-led home visiting program for first-time mothers who are at high risk as a result of poverty. It begins prenatally and ends when the child reaches age 2, with a focus on the mother's life course (e.g., health choices, relationships, goals in relation to the child) and the mother–child relationship (e.g., parent–child interactions). It has resulted in lower rates of abuse and neglect, and as the children transition to adulthood, they have lower rates of drug and alcohol use and arrests (Olds, 2010). Family Foundations is a universal, eight-session intervention led by childbirth education departments for expectant parents before and after birth (Feinberg et al., 2010). It prepares parents for parenthood by fostering attitudes and skills related to positive parenting teamwork (co-parenting). Feinberg et al. showed that through the child's first 3 years, the program reduced parental stress, depression, and harsh parenting, and improved child competence and reduced child behavior problems. It also had a significant effect on the quality of the couple's relationship. The Incredible Years Project (Webster-Stratton & Reid, 2010) focuses on reducing the risk for conduct behavior problems and child maltreatment by improving parent competencies, parent involvement in school, and effective management of child behavior problems. This well researched program has demonstrated improved parenting and reduced child behavior problems.

One of the most successful programs is the Positive Parenting Program (Triple-P; Sanders, Kirby, Tellegen, & Day, 2014). Given its multilevel approach to parenting and family support, and its demonstrated effectiveness in entire populations with diverse cultures and socioeconomic levels, it is a good example of a program that makes a larger difference to a range of families. The goal of the Triple-P is to prevent severe behavioral, emotional, and developmental problems in children and adolescents by enhancing the knowledge, skills, and confidence of parents with children from birth to 16 years (Sanders, 2012). It has been distributed in a range of tested formats that meet individual family needs and circumstances, in settings where parents may have routine contact with service providers (e.g., day care, preschool settings, school, primary care clinics, and protective services), and has proven to be cost-effective. Components of the program range from universal to individualized prevention and include the following:

1. Media and promotional strategies, such as television and radio advertisements, a website, newspaper columns dealing with common parenting issues, and 13 episodes of a 30-minute "infotainment" television show. The goal is to raise awareness of parent issues and encourage participation in parenting programs.

2. A series of 90-minute, stand-alone large-group parenting seminars, brief (up to 20 minutes) face-to-face or telephone consultation, a series of parenting "tip sheets," and four brief videotape programs. The focus is on parents' specific concerns about a child's behavior or development.

3. A series of 2-hour, stand-alone group sessions dealing with common parenting topics and a brief program (80 minutes) carried out over three to four face-to-face or telephone sessions. The focus is to help parents manage discrete child problems through advice, rehearsal, and self-evaluation.

4. An intensive program (about 10 hours) with delivery options including (a) ten 60-minute individual sessions with home visits for some high-risk individuals or (b) five, 2-hour group sessions with three brief telephone or home visit sessions or (c) 10 self-directed workbook modules (with or without telephone sessions) or (d) eight interactive online modules. The sessions focus on improving parent–child interaction and the application of parenting skills to a broad range of target behaviors, including generalized enhancement strategies. A parallel program with a focus on parenting children with disabilities involves ten 60- to 90-minute individual sessions or 2-hour group sessions.

5. A family intervention that targets families with additional risk factors that did not change as a result of lower levels of intervention. There are separate programs for (a) parents of children with behavior problems and concurrent family dysfunction (e.g., depression, stress, parental conflict); (b) parents at risk for maltreating their children; (c) parents of overweight or obese children; and (d) parents going through separation or divorce.

Sanders et al. (2014) conducted a systematic review and meta-analysis of the program's system, which involved 116 studies conducted over a 33-year period, with 101 studies comprising 16,099 families analyzed quantitatively. Significant short- and long-term effects were found for children's social, emotional, and behavioral outcomes, parenting practices, parenting satisfaction and efficacy, and parenting relationship. Each of the components of this program have been evaluated, and each level was found to have empirical support for effectiveness. The Triple P International (TPI) organization, developed to disseminate the program worldwide, has resulted in the training of 62,000 practitioners across 23 countries (Sanders, 2012).

Early Intervention Programs

Early intervention programs for children focus on high-risk populations and have demonstrated considerable success in improving the cognitive, social, and emotional health of children and families in both the short and long term. Examples of these programs for children from economically disadvantaged homes are the Head Start programs and the longitudinal Abecedarian Project, which combine comprehensive services (e.g., cognitive, social–emotional, health, disability services, parenting practices) with a focus on school readiness (Horacek, Ramey, Campbell, Hoffmann, & Fletcher, 1987; Puma et al., 2012). The federally funded Head Start programs provide services for pregnant women and children from birth through age 5 years, and have served over 33 million children throughout the United States since its inception in the 1960s (Office of Head Start, 2015). Puma et al. (2012) evaluated the impacts of Head Start on 3- and 4-year-olds and found that the initial positive impacts on cognitive and achievement outcomes were not sustained into third grade. This is consistent with other studies (e.g., Currie & Thomas, 1995; Ludwig & Philips, 2008; Deming, 2009). However, they show long-term impact on school attainment, earnings, and crime reduction (Deming, 2009; Ludwig & Miller, 2007). Gelber and Isen (2011) reported that parents whose children were in Head Start programs were more involved with them in a variety of activities both during Head Start enrollment and the early elementary years, suggesting that social–emotional development may mediate long-term child outcomes. There has been a significant variation in the quality of care among Head Start Programs, which may account for some of the differences in outcomes. This inconsistency is being addressed by Head Start (2016), which has proposed longer time spent in the preschool program and developing or using higher performance standards.

The Abecedarian Project, a federally funded program, was one of the longest longitudinal studies of an early intervention program that served randomly selected children from economically disadvantaged homes compared to a similar control group (Ramey & Campbell, 1984). Children received health and mental health care on site, stable and predictable early childhood experience from birth to 5 years, 5 days a week year-round, and an educational program designed to support age-appropriate development across infant, toddler, and preschool years. Through age 21, IQ, math, and reading scores for children in the Abecedarian Project were significantly higher than those of the randomly assigned control group; the children were more likely to attend a 4-year college or university, and to be in school and/or have a skilled job (Campbell & Ramey, 1994; Ramey et al., 2000). They were also less likely to be teen parents, smoke marijuana, and report depressive symptoms than the control group. At age 30, the treated group was more likely to have a bachelor's degree, hold a job, and to delay parenthood, among other positive differences from their peers (Campbell, Ramey, Pungello, Sparling, & Miller-Johnson, 2002). A recent study found that compared to the control group, the Abecedarian Project group had significantly lower risk of experiencing total coronary disease and other health problems within the next 10 years (Campbell et al., 2014).

The Abecedarian Project also showed benefits to the teenage mothers who had children in the study. By the time the children were 4½ years old, these mothers were more likely to have finished high school and to have undergone postsecondary training, to be more self-supporting, and less likely to have more children. These factors led to increased earnings and decreased reliance on social assistance. The economic benefit of this program was significant: For every tax dollar spent, taxpayers saved $2.50 as a result of higher incomes, less need for educational and government services, and reduced health care costs, which will be even greater in the coming years (Campbell et al., 2014; Ramey et al., 2000).

SUMMARY AND CONCLUSIONS

Given the increasing discrepancy between the number of children needing mental health services and the number of providers and funds/resources for these services, clinicians and researchers must begin to focus on prevention programs. The science of prevention is based on developmental theory that spans and integrates related fields, including public health, epidemiology, neuroscience, behavioral genetics, and developmental psychopathology (Ialongo et al., 2006; Thapar et al., 2015). Prevention programs should attempt not only to forestall harmful effects on children's development but also to enhance children's ability to cope with the difficulties and unexpected challenges that occur over the course of development. To ensure sustainable results, this work should include parents, teachers, and other significant adults in the child's life. Research has demonstrated that major mental health problems can be moderately reduced through universal preventive interventions, as well as selective intervention programs that target children at risk due to a variety of child, parent, and environmental factors. The dissemination of programs with high fidelity will require finding ways to have government agencies, schools, and local communities understand and support the value of evidence-based mental health programs that can improve the well-being of the community and reduce the financial burden on society (Sandler, 2012).

RESOURCES FOR CLINICIANS

Thapar, A., Pine, D. S., Leckman, J. F., Scott, S., Snowling, M. J., & Taylor, E. A. (2015). *Rutter's child and adolescent psychiatry* (6th ed.). Chichester, UK: Wiley.

RESOURCES FOR PARENTS

American Academy of Pediatrics Child Care Books that cover developmental issues: *Caring for Your Baby and Young Child: Birth to Age 5* (Shelov, Altmann, & Hannemann, 2014); *Caring for Your School-Age Child: Ages 5–12* (Schor, 1999); *Caring for Your Teenager Ages 12–21* (Bashe & Greydanus, 2003).

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[1] The term *parents* throughout the book refers to the child's primary caregivers, regardless of whether they are the biological, adoptive, or legal guardians. The term *caregivers* refers to anyone else taking care of the child, including relatives, day care workers, teachers, and so forth.

CHAPTER 2

Assessment to Intervention

The primary task of the clinician is to identify and treat those children with emotional and/or behavioral problems that significantly interfere with their development or functioning. The first step in accomplishing this task is a careful assessment of the presenting problem. In addition to determining whether particular behaviors are clinically significant, the assessment process must determine what factors contribute to the problem and what should be the target areas for intervention. Furthermore, a careful assessment informs the clinician about which treatment methods are developmentally appropriate for each child and family. In order to accomplish this task, the clinician must take into account the developmental level of the child compared to typical development; the potential biological influences on the child's functioning; and the broader ecological factors (familial, social, and cultural) that interact with the child's characteristics. Moreover, the clinician must have knowledge of evidence-based treatment approaches, as well as ways to document treatment progress for individual cases. In this chapter, we focus on an assessment-to-intervention process that aids in determining whether treatment is necessary and, if so, identifies the focus of the treatment. Since we discussed typical development in Chapter 1, we begin this chapter with diagnostic classification and the prevalence of childhood problems. Next, we present a practical assessment-to-intervention system that is adapted to specific problems discussed in later chapters. We also discuss methods of assessment that we have found most useful in clinical practice. Finally, we cover issues that are central to the treatment process.

ISSUES OF DIAGNOSTIC CLASSIFICATION

Assessment and diagnostic classification are interrelated processes. *Assessment* identifies the unique features of an individual case, whereas *classification* groups cases according to certain common features (Frick, Barry, & Kamphaus, 2010). Some of the benefits of classification systems include (1) promotion of communication among professionals, since each system of classification defines the rules for distinguishing a particular disorder from typical functioning and facilitates reporting of data; (2) translation of research into practice, since classification allows one to determine how the features of an individual case relate to other cases for which research has identified similar features; and (3) documentation for the need of services such as special education, or submitting for reimbursement of services.

In contrast to these advantages, there are inherent problems in any classification system. First, there is no clear way to determine when a behavior should be considered pathological. Second, there is a high degree of overlap between various forms of psychopathology, such as anxiety and depression symptoms, and treatments that work across different disorders (known as transdiagnostic approaches), making categorization of cases difficult. Third, a stigma may be associated with the "label" derived from classification. The labels "autism" or "attention-deficit/hyperactivity disorder" (ADHD), for example, can cause people to treat children more negatively compared to their unlabeled peers (Frick et al., 2010). Therefore, it has become standard practice to use classification labels to describe the psychological construct rather than an individual (e.g., "a child with ADHD" vs. "an ADHD child").

Although the benefits of classification outweigh the disadvantages, it is important that the clinician have a clear understanding of the limitations of different classification systems, that the labels or classification categories be used cautiously, and that classification be used only when there is a clear purpose for doing so (Frick et al., 2010). Furthermore, for a classification system to be useful, it must be easy to use and have explicit rules for reliable use by different raters over time. It must also be meaningful—that is, valid in terms of the etiology and course of the problem, associated features, and/or treatment approaches.

Categorical Approach

A categorical or clinical-diagnostic approach to classification starts by defining groups of disorders, usually by committees of mental health experts. Hence, clinical experience, inferences from the existing empirical literature, and the various orientations of committee members all contribute to the categories that are finally selected for inclusion. After defining the overarching diagnostic groups, symptoms are then outlined that are needed to qualify for meeting the criteria for each diagnostic group or category (de Wolff, Vogels, & Reinjneveld, 2014). This approach suggests that diagnoses are clear-cut and individuals fall into distinct categories of disorders (McLeod, Jensen-Doss, & Ollendick, 2013). The most commonly used categorical classification system in the United States is the *Diagnostic and Statistical Manual of Mental Disorders*, presently in its fifth edition (DSM-5; American Psychiatric Association [APA], 2013). Another categorical system also used in the United States and around the world is the *International Classification of Diseases*, currently in its 10th revision with clinical modifications to fit the mental health terms used in the United States (ICD-10-CM;

Centers for Disease Control and Prevention, 2014a). Although DSM-5 is the diagnostic system that most psychologists are trained to use, ICD-10-CM is the official system used in health care settings within the United States and the required mental health categories to use for insurance reimbursement. In fact, ICD codes reported in the United States are also shared and combined with statistics from 193 World Health Organization (WHO) countries around the world (Goodheart, 2014). Therefore, crosswalks have been developed between DSM-5 and ICD-10-CM to translate one code to another, with each DSM-5 code having a related ICD-10-CM code. Over time, the DSM and ICD systems have become more congruent to make translation between them simpler. With the introduction of ICD-11 and its increased clinical utility, it is predicted that there will be some merger of the DSM and ICD into the "Blue Book," which contains the clinical descriptions of ICD for use in the United States (Goodheart, 2014).

The advantage of a categorical approach is that it provides criteria for disorders based on an individual's reported or observed symptoms; they either meet or do not meet criteria for a particular disorder (Goodheart, 2014; McLeod et al., 2013). This has provided more consistency in describing symptoms and criteria across professionals in research and clinical work. The DSM uses more specific criteria on the number of symptoms needed to meet a diagnosis, while the ICD uses more general diagnostic guidelines, with some flexibility for clinical judgment (Goodheart, 2014). The DSM also provides the user with basic scientific information supporting various disorder categories, including (1) the characteristics of associated features; (2) age, gender, and cultural trends; (3) prevalence; (4) course; and (5) familial patterns (APA, 2013).

There are also several disadvantages to a categorical approach. Questions that are difficult to answer with a categorical approach to classification include (1) how to handle problems that are subthreshold or just miss the criteria or cutoff score for a disorder (e.g., the "Other Specified" and "Other Unspecified" categories tend to lump together symptoms that do not meet full criteria); (2) how to discriminate one disorder clearly from another, since there is often a great deal of overlap between disorders; (3) how to deal with *comorbidity,* or co-occurrence of disorders (i.e., are disorders distinct, or is there something unique about the co-occurrence?); (4) how to determine whether disorders differ qualitatively or quantitatively from "normal" (McLeod et al., 2013); and (5) how to reliably classify disorders for infants and toddlers has not been adequately demonstrated (DelCarmen-Wiggins & Carter, 2000).

The use of the DSM classification system can be particularly problematic with young children, whose ever-changing development makes it difficult to determine which behaviors are transient developmental problems and which are clinically significant (Keenan & Wakschlag, 2004). Although DSM-5 encourages clinicians to view individuals with a particular disorder as heterogeneous and gather information that goes beyond the diagnosis, it does not provide adequate guidelines for how to use this information. In addition, although both parent–child and sibling relational problems can be coded as “other conditions that may be a focus of clinical attention” (APA, 2013, p. 715), the diversity of these problems and their importance to the diagnosis of children’s problems are not adequately taken into account. In order to help address this issue, another categorical system was developed (and recently updated) specifically for the youngest children: *Diagnostic Classification of Mental Health and Developmental Disorders of Infancy and Early Childhood* (DC:0–5; Zero to Three, 2016). Although its reliability and validity have not yet been widely studied, the DC:0–5 shows potential for being a supplemental categorization system of disorders in the early years, including parent–child relational disturbances (Postert, Averbeck-Holocher, Beyer, Müller, & Furniss, 2009).

Dimensional Approach

In contrast to the categorical approach, a dimensional or empirical–quantitative approach to studying childhood problems assumes that behavior occurs along a continuum (from typical to pathological) rather than dichotomously (an individual either has or does not have a disorder), and bases classification on patterns of behavior covariation (McLeod et al., 2013). In the dimensional approach, pools of items are selected for reporting behavioral and emotional problems that are felt to be important among children. These items are then scored for large normative and clinical samples as assessed by different informants (i.e., parent, teacher, youth) to determine how well they discriminate between children who are displaying clinically significant behaviors and those who are considered in the typical range (Achenbach, 2009, 2013; Achenbach & Rescorla, 2001a, 2001b). Factor analyses are used to identify sets of behaviors that occur together and are identified as syndromes, such as aggressive behavior or social problems. Data from the normative samples provide a frame of reference for judging problems reported for individual children. Standard scores or percentiles are used to determine whether a child’s scores on each syndrome are relatively low, medium, or high compared to nonreferred peers and as reported by each of the different informant sources.

Different types of questionnaires help to capture different problem behaviors. *Broadband* questionnaires include a wide range of problem behaviors that children might exhibit, then use factor analysis to form groups with similar behaviors. This range often incorporates internalizing and externalizing child symptoms (Sattler, 2014). Internalizing symptoms are directed inward to feelings of the child, such as depression, anxiety, and/or withdrawal. Externalizing symptoms are directed outward and are usually more disturbing to others, such as hyperactivity, disruptive behaviors, or aggressive behaviors. Examples of broadband dimensional systems include the Child Behavior Checklist (CBCL; Achenbach, 2013; Achenbach & Rescorla, 2001a, 2001b) and the Behavior Assessment System for Children, Third Edition (BASC-3; Reynolds &

Kamphaus, 2015). Each of these questionnaires include behaviors that address a range of symptoms for depression, anxiety, inattention, aggression, and other acting-out behaviors. *Narrowband* instruments are used to assess a more narrowly defined class of problems or diagnoses. For example, the Children's Depression Inventory, Second Edition (CDI-2; Kovacs, 2011) is an example of a short, narrowband instrument that includes several behaviors focusing on depression in children.

Thus, a dimensional system of classification allows description of multiple behavior patterns for an individual child, using cutoff scores to determine the clinical significance of specific behaviors for different age groups as rated by different respondents. The use of a dimensional approach has some advantages, in that it takes into account a full range of child behavior versus just categories of disorders. It may also provide information about prevention and early intervention for emerging problems, such as depression. Moreover, it considers deviant behavior as a matter of degree rather than as being present or absent, and the inclusion of adaptive scales gives information about protective factors and optimal development (McLeod et al., 2013).

Categorical versus Dimensional Approaches

Research studies indicate that both the categorical and dimensional approaches to classification have their strengths and weaknesses, which should discourage exclusive reliance on one versus the other (Frick et al., 2010; McLeod et al., 2013). For example, the diagnosis of autism spectrum disorder (ASD) in DSM-5 still has not only a categorical approach, with specific symptoms to meet the diagnosis, but also a more dimensional perspective, after eliminating the categories of Asperger's disorder and child disintegrative disorder, and including the symptoms of those disorders within the autism spectrum (APA, 2013). This change was made after research findings indicated that it is very difficult to differentiate between the different categories of autism disorders across professionals and settings, and that it is more appropriate to use a continuum of core symptoms to make this diagnosis (Lord et al., 2012a; Rondeau et al., 2011). In addition, the dimensional questionnaire, CBCL (Achenbach, 2013; Achenbach & Rescorla, 2001a, 2001b) now includes DSM-oriented subscales that display *T*-scores and percentages for possible disorders, such as depressive problems, anxiety problems, or oppositional defiant problems. The comparison of dimensional versus categorical scales of the CBCL has shown some consistency in identifying children with problems, but each also independently identifies children, showing that there is meaningful information derived from both methods (de Wolff et al., 2014; Ferdinand et al., 2004).

In addition to categorical and dimensional approaches, clinical judgment regarding the presence of a significant problem is enhanced when information is gathered through multiple methods, from several sources, and across situations. Both the authors of DSM-5 and the developers of dimensional approaches stress the importance of including different types of data in the assessment process, such as a medical evaluation, cognitive assessment, physical assessment, parent and child interviews, and direct observation of a child's behavior (e.g., APA, 2013; McLeod et al., 2013).

ESTIMATES OF PREVALENCE

The prevalence of behavioral and emotional problems among children is difficult to determine because of the various nonstandardized criteria used to identify the presence of a particular problem, as well as the varying labels and definitions of problem behaviors. In addition, the wide developmental and behavioral variability among children from infancy to adolescence makes it difficult to say that a certain behavior or set of behaviors represents a clinical disorder except in extreme cases. Moreover, many behaviors that might be considered symptoms of psychiatric disorders are surprisingly common in nonclinical samples of children, such as aggression (Keenan & Wakschlag, 2004; Sanders, Markie-Dadds, Rinaldis, Firman, & Baid, 2007). DSM-5 has taken a developmental and lifespan approach to disorders and has arranged diagnostic sections based on those disorders thought to begin earlier in life and those that manifest later in adolescence and adulthood (APA, 2013). Table 2.1 indicates prevalence rates for the DSM-5 disorders that often have their onset during infancy, childhood, or adolescence.

TABLE 2.1. DSM-5 Disorders Usually First Diagnosed in Infancy, Childhood, or Adolescence

Disorders	Age of onset	Prevalence
	Neurodevelopmental disorders	
Intellectual disabilities	Birth	1%
Communication disorders		
Language disorder	4 years	3–5% of school-age children
Speech–sound disorder	3 years	2–3% of 6- to 7-year-olds; 0.5% of 17-year-olds
Child-onset fluency disorder	2–7 years	1% of preadolescents; 0.8% of adolescents
Social (pragmatic) communication disorder	4–5 years	Unknown
Autism spectrum disorder	Before 2 years	1%
Attention-deficit/hyperactivity disorder	Before 12 years	5% of children
Specific learning disorders		
Specific learning disorder with impairment in reading with impairment in written expression	Elementary school years	5–15% of school-age children

Specific learning disorder with impairment in mathematics	Elementary school years	5–15% of school-age children
Motor disorders		
Developmental coordination disorder	5 years	5–6% of 5- to 11-year-olds
Stereotypic movement disorder	All ages (typically develops before 3 years)	4–16% of individuals with intellectual disabilities; 10–15% of individuals with intellectual disabilities living in residential facilities; 3–4% of individuals develop complex stereotypic movements
Tic disorders		
Tourette's disorder	Before 18 years (typically develops by 4–6 years)	3–8 per 1,000
Persistent (chronic) motor or vocal tic disorder		4.5% boys; 2.7% girls
Provisional tic disorder		
	Anxiety disorders	
Separation anxiety disorder	Before 18 years; typically develops during preschool years	In children, the 6- to 12-month prevalence is 4%; in adolescents, the 12-month prevalence is 1.6%
Selective mutism	Before 5 years	0.03–1%
	Trauma- and stressor-related disorders	
Reactive attachment disorder	Before 5 years	Very rare
	Feeding and eating disorders	
Pica	Most common in childhood	Among individuals with intellectual disabilities, prevalence increases with severity of condition
Rumination disorder	3–12 months	Higher prevalence among individuals with intellectual disabilities
Avoidant/restrictive food intake disorder	Infancy to early childhood	Unknown
	Elimination disorders	
Enuresis	5 years (primary type); 5–8 years (secondary type)	5–10% among 5-year-olds; 3–5% among 10-year-olds; 1% of individuals 15 years or older

Encopresis	At least 4 years	1% of 5-year-olds
	Disruptive, impulse-control, and conduct disorders	
Oppositional defiant disorder	Preschool years; no later than early adolescence	1–11%; 3.3% average prevalence
Intermittent explosive disorder	Late childhood or adolescence	2.7%
Conduct disorder	Preschool years (typically before 16 years)	2% to more than 10%, with a median of 4%

Note. Data are from American Psychiatric Association (1994, 2013).

According to a range of population studies, approximately 25% of children met criteria for a DSM diagnosis over the past year, and 33% of children will meet the DSM lifetime criteria for diagnosis (Merikangas, Nakamura, & Kessler, 2009). In addition, 10% of children will meet national criteria for a *severe emotional disturbance* (SED), defined as youth under age 18 who meet criteria for a diagnosable disorder that significantly affects functioning in at least one setting, such as home, school, and/or community environments (Smith-Boydston, 2005). Depending on the samples studied, anxiety and behavior disorders are the most frequently diagnosed problems for children, followed by depression and substance use. Girls show greater rates of internalizing disorders and boys show greater rates of externalizing disorders (Merikangas et al., 2009, 2010). Mood disorders may tend to be more prevalent in older adolescents than in younger children, and conduct disorder is more prevalent among early adolescents. In addition, children from lower socioeconomic status (SES) have been shown to have higher overall rates of disorders (Merikangas et al., 2010).

Prevalence rates for DSM diagnoses of preschool children (ages 2–5) are consistent with those for older children, although developmental differences, such as separation anxiety and oppositional behavior, are more prevalent among younger children, and generalized anxiety and conduct problems in older children. Egger and Angold (2006) reported that across several studies, the prevalence of disorders ranged from 14 to 24% (with a mean of 19%) and from 9 to 12% for young children with SED. Prevalence rates for infants and toddlers have only recently received attention from the research community, most likely because few reliable and valid methods for assessment are available for this age group (DelCarmen-Wiggins & Carter, 2000; Skovgaard et al., 2007). A survey of a representative sample of healthy births indicated that about 11.8% of parents of 2-year-olds reported clinical or subclinical levels of problems as measured by the CBCL/2–3 (Briggs-Gowan, Carter, Skuban, & Horwitz, 2001). In addition, a study of 211 children in a general population from the Copenhagen Child Cohort study found that 16–18% of 1½-year-olds met criteria for ICD-10 or DC:0–3R diagnoses, comparable to studies of older children (Skovgaard et al., 2007). A range of problems was identified, including disorders of conduct and emotions, developmental disorders, eating disorders, and ADHD. They also found that parent–child relationship disturbances were found in 8% of the children and were significantly associated with the child's mental health problems.

It is important to look at the prevalence of mental health issues in childhood, because studies have shown that childhood disorders predict mental health problems in adolescents and adults (Kessler et al., 2005). Therefore, treating issues in childhood may help prevent future mental health disorders. Costello, Angold, and Keeler (1999) reported that children with a severe behavior disturbance in childhood were eight times more likely than typically developing children to have a severe disturbance in adolescence. For children with subclinical disturbances, the risk of problems in adolescence was five times greater than that for healthy children, but only when the disturbance was accompanied by significant impairment in functioning. Similarly, later externalizing problems in adolescence have been predicted by toddler–parent interactions characterized by low warmth and parent's negative perceptions of their children. In addition, the toddler's difficult behavior and resistance to control predicted later problems (Olson, Bates, Sandy, & Lanthier, 2000). Childhood problems have also been shown to predict adult disorders 24 years later (Reef, van Meurs, Verhulst, & van der Ende, 2010).

Taken together, the research on prevalence of childhood problems indicates that rates of serious disorders are relatively low. Problems in the early years can be transitory and associated with a specific developmental period, but children whose symptoms are severe, and especially those who have difficulty with disruptive behaviors, are highly likely to continue to have problems as they grow and develop. Biological vulnerability, environmental instability, frequency and severity of problems, and the type of disorder all appear to contribute to the stability of these problems.

PLANNING AN ASSESSMENT

The intended purpose(s) of an evaluation, including clearly specified goals and objectives, should be articulated before the assessment process begins. This will determine whether a psychiatric diagnosis is needed, what tests (if any) should be administered, who should be interviewed, whether direct observation is necessary, and whether there is a need for collaboration with health care providers. If the person requesting the assessment is not sure whether there is a problem, then the goal should be to determine the nature and source of the child's difficulty, as well as to make recommendations regarding the need for treatment. In clinical practice, assessment can have multiple purposes, and these are often interrelated. The goals of assessment are generally to (1) determine whether there is a problem (i.e., to differentiate between typical and abnormal behavior); (2) delineate the child's strengths and deficits; (3)

predict future behavior or the course of the disorder; (4) classify the problem; and (5) provide guidelines for intervention.

In addition to understanding the purpose(s) of an assessment referral, it is also important to describe the problems that have led to the referral. Enough preliminary information on the child's functioning should be gathered to permit some initial hypotheses about what the problem is, whether it warrants an evaluation, and who is the most appropriate person to do the evaluation. We have found that brief phone contact at the time of the referral helps determine whether an evaluation should proceed, and if so, what information should be gathered prior to the initial appointment. If a parent or agency is seeking an evaluation for possible sexual abuse of a child, for example, and it emerges that the child has already been interviewed about the event, it may not be appropriate to do another interview. Likewise, if the clinician has no expertise in the area of sexual abuse or feels that he or she could not do an objective evaluation in a particular case, then the case should be referred to someone else. Cultural issues, such as language barriers, may also indicate the need for a referral to another clinician, or at least the need for an unbiased interpreter. The nature of the problem, such as a 4-year-old's sleep "problems" described as one episode of a sleep terror (see Chapter 5), may indicate that a full evaluation is not necessary. It is also important to talk with the parent about how to prepare the child for seeing the clinician. Often parents have not said anything to the child and look to the clinician to guide them on how to approach this issue.

A number of other issues should be considered before embarking on an evaluation. First, as we discussed in Chapter 1, knowledge of typical development and developmental psychopathology helps the clinician place the child's emotional and behavioral functioning within a developmental context. Hence, it is important to consider developmental issues in planning the assessment process. For example, self-reports may be considered unreliable prior to age 9, and younger children may give more extreme responses on a self-report measure (Chambers & Johnston, 2002). The tests used should have good normative data for the age group of the referred child, and the assessment method should be appropriate to the child's developmental level. Certain behaviors occur more frequently at one age than at others, so it must be determined whether the referred behavior is an exaggeration of a typical developmental pattern or is a clinically significant problem requiring treatment. A second issue to consider is that children who have a problem in one area of emotional or behavioral functioning are likely to have problems in other areas, particularly in the social and cognitive areas (Frick et al., 2010). This means that the evaluation must be comprehensive enough to consider the problems most likely to be comorbid, or associated, with the referred behavior. As an example, if the referral is for an 8-year-old's poor reading and written language achievement, then a developmental language disorder should also be considered. Similarly, if a 7-year-old is referred for problems in school that center around being overactive, disorganized, and impulsive, then learning problems should also be considered. Asking the parent about these areas in the initial interview can often give the clinician information to determine whether or not to pursue other hypotheses.

Another area that should be considered in planning the evaluation is the context of the problem. Because children's behavior is influenced by the psychosocial environment, it is important to determine what aspects of the environment should be assessed (e.g., parenting strategies, peer influences, or sibling relationships) and how they should be assessed (e.g., direct observation, rating scales, or family interview). Given that environmental contexts vary from child to child, the intake information should give the clinician enough information to determine what significant people in the child's life should be asked to provide information on the problem, what context of the child's life has the greatest impact on his or her functioning, and what is the best way to structure the assessment of family influences. If the intake information indicates that the problem is occurring only at school, for example, then gathering information from the teacher may be indicated before the initial parent or child interview. Likewise, if a child spends significant time with another parent, such as a stepparent, then the stepparent's input should be considered.

In summary, evaluation of childhood problems should be viewed as a hypothesis-testing procedure that takes into account developmental psychopathology, the influences of context, and what will be best for the child's development (Frick et al., 2010). Amount of time needed for the assessment and cost, including insurance coverage, are also important considerations, so one must determine the most efficient means of obtaining the essential information without compromising the usefulness of the information. The assessment process is an evolving one, so that hypotheses are made, changed, or confirmed as new information is gathered.

ASSESSMENT CASE EXAMPLE

Before discussing the assessment to treatment process, the importance of gathering a range of information is highlighted by a case example. A 6-year-old girl, referred by her parents, was described as impulsive, moody, and having difficulty in school. The parents sought not only an understanding of the problem, but specific guidance to help their daughter make a better adjustment in the home and school, as well as with her peers. On the General Parent Questionnaire, the parents reported that several male relatives on the maternal side of the family were diagnosed with intellectual disabilities. One of these relatives had also recently been diagnosed as having a fragile X chromosomal disorder. Prior to the initial interview, the clinician reviewed the research literature on this disorder and learned that females are carriers of the defective gene for fragile X syndrome, and that there is a phenotype for these females. Given the description of the phenotype and the initial description of the child's behavior, the clinician hypothesized that the child might be a fragile X carrier. It was also hypothesized, due to the referral symptoms, that she might have ADHD and/or a learning disability. Information was gathered from the parents (interview, rating scales, daily behavioral logs, observation of parent–child interaction during interviews), the teacher (rating scales, achievement and test scores), and the child (interview, direct observation, psychoeducational testing).

As the assessment progressed, the child's profile of behaviors was found to have many characteristics of the female fragile X carrier. After discussion with the parents, the child was referred to her health care provider for a genetic evaluation, which indeed indicated that this was the case. The assessment data showed that her inattention and impulsivity/hyperactivity symptoms were significant and caused enough impairment to meet the criteria for a diagnosis of ADHD. In addition, she was functioning cognitively in the average range but had achievement scores significantly below grade expectations, indicating a specific learning disorder. Socially, she had many friends and engaged successfully in age-appropriate activities. Emotionally, she felt loved but recognized that her impulsive behavior often created problems for herself and her family. Her parents were warm and supportive, and provided a structured yet stimulating environment. Thus, the nature of the child's problems was determined and classified (fragile X carrier status, ADHD, and a learning problem); her strengths were delineated (a desire to please, good social skills, and supportive environments at home and school); and the assessment process gave specific recommendations for intervention strategies to address her present difficulties.

Although it was predicted that the child would probably have some difficulties in the future, her many strengths made it likely that she would adapt and continue to develop successfully. Intervention strategies derived from the assessment data included changes in class placement and resource support; psychoeducation with the family in regard to the diagnoses; referral to a parent association for children with fragile X syndrome; specific behavior management techniques for the parents; and brief individual work to help the child recognize her strengths and cope with her weaknesses. It was also understood that further assessment and intervention might be needed as the child encountered new challenges.

A COMPREHENSIVE ASSESSMENT-TO-INTERVENTION SYSTEM

Given the many factors that must be taken into account in identifying the emotional and behavioral problems of children, some method of systematically collecting and organizing information during the assessment process is critical. We describe a behaviorally oriented system for assessment of children's problems that is based on Rutter's (1975) work. This system, referred to as the Comprehensive Assessment-to-Intervention System (CAIS) and summarized in Table 2.2, focuses on the specifics of the behavior of concern and takes into account other characteristics of the child, family, and environment that influence the child's behavior. The CAIS also provides a framework for choosing tests and other information-gathering methods, for summarizing the assessment data, and for planning areas of intervention.

TABLE 2.2. Comprehensive Assessment-to-Intervention System (CAIS) for Child Behavior Problems

I. *Clarifying the referral question.*

After the parent has described the problem, the clinician should be certain that he or she and the parent are seeing the issue in the same way. This can be done by simply reflecting what the parent has said: "It sounds like you are concerned about your child getting up in the night, as well as the different ways you and your husband are handling the situation."

II. *Determining the social context.*

A child is referred because someone is concerned. This does not mean that the child needs treatment or that the child's behavior is the problem. The clinician should ask, "Who is concerned about the child?"; "Why is this person concerned?"; "Why is this person concerned now as opposed to some other time?" The parents' affect in describing the problem is significant: Are they overwhelmed, depressed, nonchalant?

III. *Assessing general areas.*

- A. Developmental status
  1. Physical/motor
  2. Cognitive
  3. Language
  4. Social
  5. Personality/emotional
  6. Psychosexual
- B. Parent and extended family characteristics
  1. Personality characteristics
  2. Psychopathology
  3. Marital status
  4. Availability and use of social support
  5. Parenting styles and techniques
  6. Sibling relationships
- C. Environmental characteristics and events
  1. Recent stressful life events
  2. Socioeconomic status
  3. Subcultural norms and values
  4. Specific antecedents or triggers of behavior
- D. Consequences of the behavior
  1. Past and present management strategies
  2. "Payoff" for child
  3. Impact of behavior on child, parents, and environment
  4. Prognosis with and without treatment
- E. Medical/health status
  1. Family history of medical/genetic problems
  2. Prenatal history, birth history, and early medical issues

        3. Medications
        4. Chronic illnesses (e.g., otitis media, diabetes)

IV. *Assessing specific areas.*
    A. Persistence of the behavior
    B. Changes in the behavior
    C. Severity of behavior
    D. Frequency of behavior
    E. Situation specificity
    F. Type of problem

V. *Determining the effects of the problem.*
    A. Who is distressed by the behavior?
    B. Interference with development

VI. *Determining areas for intervention.*
    A. Development
        1. Teaching new skills to the child
        2. Providing appropriately stimulating environment
        3. Changing the behavior by increasing or decreasing it
    B. Parents
        1. Developing new parenting techniques
        2. Changing the emotional atmosphere
        3. Treating marital problems or parent psychopathology
        4. Changing parental expectations, attitudes, or beliefs
    C. Environment
        1. Changing the cues that trigger the behavior or prevent it from occurring
        2. Helping parents build support networks and deal with daily living problems
        3. Helping child/family cope with stressful life events
    D. Consequences of the behavior
        1. Changing parents' responses to the behavior
        2. Changing others' responses to the behavior
        3. Changing the reinforcement for the child
    E. Medical/health status
        1. Intervening in the cause of the problem
        2. Treating the effects of the problem

Clarifying the Referral Question

Although the need to clarify the referral question may seem obvious, its importance cannot be overemphasized. The referral source may be a teacher or an agency, but it is most often a parent. After the parent has described the child's symptoms that have led the family to seek services, the clinician should be certain that he or she has a good idea about the referral issue. Parents often have questions or concerns that are not well articulated or initially stated. For example, a parent may initially say that his or her child is anxious going to school, but after gathering more information it becomes clearer that marital conflict is highly related to the anxiety. A parent's concerns can be clarified by simply reflecting what the parent has said: "It sounds like you are worried about your child refusing to go to school, as well as the different ways you and your husband are handling the situation." This gives the parent the opportunity to restate his or her concerns until a mutual understanding is reached. For example, a parent may state that the school has sent them for an assessment but the school and parent have different ideas of what is causing the current issue. Once the issues to be addressed are clarified, the clinician must then decide which referral questions he or she can adequately or appropriately address, and discuss these with the parent. The information gathered in the assessment process will be useful only to the extent that there is agreement on the questions to be addressed throughout the process.

Determining the Social Context of the Problem

Children's behavior is greatly influenced by their psychosocial environment and may vary within and between contexts (e.g., with one parent vs. another, at school vs. home, in structured vs. unstructured activities). A child is referred because someone is concerned; however, this does not necessarily mean that the behavior of concern is deviant, that the child's functioning is impaired, or that the child needs treatment. The clinician should clarify, "Who is concerned about this child? Why is this person concerned? And why is this person concerned now, as opposed to some other time?" This information not only clarifies the parent's perception of the problem but may also alert the clinician to other people who should be contacted or other contexts in which the child's behavior should be assessed. If a child began having a problem when a new teacher was assigned to the class, for example, or if the child is nervous and physically sick only when he or she goes to an afterschool program or visits a noncustodial parent, then these contexts should be assessed.

The parents' affect in describing the problem is also significant. Are they overwhelmed, anxious, depressed, or nonchalant? Garcia-Coll and Meyer (1993) note that questions such as the following can help the clinician get a better understanding of the parents' perspective:

"What do you think caused your child's problem?" "Why do you think the problem started when it did?" "How does the problem affect you or your child?" "How severe do you think your child's problem is?"
"Do you expect it to have a short- or long-term course?"
"What kind of treatment do you think your child should receive?" "Who can help you with treatment?"
"What are the most important results that you hope your child will receive from

treatment?"
"What is your greatest fear about your child?"

Asking parents about their expectations, hopes, and fears in coming to a mental health professional helps in gathering and interpreting the material, especially if the clinician's recommendations are contrary to the parents' expectations or confirm their worst fears. This information can also help the clinician develop a culturally sensitive treatment program. In some cultural contexts, for example, infants and children sleep with their parents at night, and this is seen as typical behavior; yet co-sleeping may be viewed as a major concern in another culture.

Assessing General Areas

In assessing a child's behavioral problems, the clinician should keep in mind the general areas that influence the occurrence of behavior problems: (1) the child's developmental status; (2) characteristics of the child's parents or extended families; (3) environmental characteristics and events; (4) the consequences of the behavior in both a narrow and a broad sense; and (5) the child's medical or health status. These areas are summarized in Section III of Table 2.2.

Developmental Status of the Child

Knowledge of the child's developmental status allows the clinician to compare the child's behavior to that of other children of the same age or developmental level. The clinician's job is to judge whether the behavior of concern is more or less than one would expect of a child at that age and in that environment. Knowing typical developmental milestones is critical in making these determinations (see Chapter 1) and should include the areas of physical/motor, cognitive, language, social, personality/emotional, and psychosexual development. A 3-year-old child who wets the bed, for example, has a behavior that may be considered "typical" or "common" for that age, whereas a 10-year-old who wets the bed is viewed as having a more significant problem. Also, the frequency of problem behaviors changes developmentally, and some behaviors improve without any intervention. Although physical aggression may be considered a problem at any age, its clinical significance increases with age. Thus, the time when this behavior first occurs in a child's life is as important as the behavior itself. Furthermore, the preschool years are a critical time for the identification of and early intervention with children with developmental delays.

Characteristics of Parents and Extended Family

Although it is difficult to identify causal mechanisms in the development of childhood disorders, and equally difficult to delineate the specific factors contributing to or mediating outcome, the developmental and child clinical literature provides evidence for certain parental characteristics and parenting practices that facilitate development, as well as those that make a child more vulnerable to difficulties. We discussed these factors in Chapter 1 and the way they affect how parents view their children. For example, low parental tolerance, unrealistic expectations for child behavior, marital stress, and family dysfunction may each influence parents' perceptions of their child's behavior. In fact, adult psychopathology, such as depression and adult ADHD, and lack of social supports, can predict parenting distress above and beyond child behavior symptoms, and may impede the parents' ability to interact appropriately with their child (Theule, Wiener, Rogers, & Marton, 2011). Thus, the perspective of the referral source and parents must be taken into account. The parents may lack information about typical child development, may have emotional problems, or may be experiencing life stressors, all of which can distort their perception of the child's behavior. Areas that are especially important to assess include parenting styles and techniques; marital status; the presence of psychopathology in parents and other family members; sibling relationships; and the availability and use of social support, including extended family members, friends, neighbors, and/or acquaintances.

Environmental Characteristics

Recent stressful life events, SES, and subcultural norms and values provide important information about problems the child is experiencing and the intervention strategies that may be helpful. The child's environment provides the setting conditions for the behavior, and in some cases may be a more appropriate focus for intervention than the behavior itself. The setting conditions may include very specific antecedents, or possible triggers to the behavior (e.g., repeated commands or criticism from parent, teasing from sibling, or hunger), SES, and other relatively stable characteristics or major events (e.g., parental divorce, a death in the family, chronic illness, or an impending move). So, if a parent tells the clinician that the behavior "comes out of nowhere," it is important to gather more information regarding the circumstances under which the behavior occurs. A functional behavioral assessment examines the relationship between the observed behavior and environmental events that happen before and after the event (Sattler, 2014). Carefully observing the environment can help identify these antecedents even if others do not notice them. This helps the clinician ascertain under what conditions (e.g., after the child is told to clean his or her room) the problematic behavior occurs, which then leads to the consequences of the behavior (e.g., how the parent responds to the child).

Consequences of the Behavior

Information to be gathered about consequences includes the ways in which parents are currently handling the behavior or emotional problem; the techniques they have tried in the past; the impact of the behavior on the child, parents, family, and environment; and the prognosis for the child, with and without treatment. This can also help identify what might be maintaining the behavior in this environment. A consequence is not always a punishment administered to the child (Sattler, 2014). The clinician should ask the parent, "What things have you used to try to change the behavior, and what has and has not worked?" In getting this information, there should be an assessment of factors that were more highly related to consequences (e.g., Dad gave consequences vs. Mom) to lessen or increase the problem behavior. Lack of careful assessment of these factors may lead to the parent responding to suggestions by saying, "Yes, but we have tried that, and it doesn't work."

Medical/Health Status

Assessment of medical/health status should include gathering information on the immediate and extended family's history of medical or genetic problems, the child's prenatal and birth history, early medical issues, any chronic illnesses, and current health and medications. Much of this information can be gathered in an intake interview or with a general parent questionnaire, and specific areas of concern can be followed up in the interview. For example, knowing whether a mother drank alcohol during pregnancy may help to identify fetal alcohol syndrome as a reason for a child's hyperactive behavior or learning issues. Children with thyroid issues may also evidence inattention, hyperactive, and irritability symptoms that look like ADHD.

Assessing Specific Areas

Given that many behaviors cannot be directly observed by the clinician, it is important to get a descriptive, detailed analysis of the problem(s). Information should include the persistence of the behavior ("How long has it been going on?"); changes in behavior ("Is it getting worse?"); severity ("Is the behavior very intense or dangerous, or low-level but 'annoying'?"); frequency ("Has the behavior occurred only once or twice, or many times?"); situation specificity ("Does the behavior occur only at home or in a variety of settings? If it occurs at school, what time of day does it occur and in which classes?"); and the type of problem ("Is the problem a discrete behavior or a set of diffuse problems?”).

Determining the Effects of the Problem

It is important to note who is distressed by the referral problem(s). It may be that the child’s behavior is bothering one parent but not the other, or that it is a problem in school or with peers but not with the parents. In other cases, although the behavior may be interfering with the child’s development, it may not be seen as a problem by the parents or other adults; without intervention, however, it may lead to a poor outcome for the child. A learning disability, for example, may not be viewed as a problem by the parents, but the child is likely to suffer negative consequences in school and in future opportunities if it is left untreated.

Determining Areas for Intervention

After assessing each of the areas described earlier, the clinician should have a good idea of the problem and what additional information is needed for the *case conceptualization,* which is the clinician’s hypotheses about the causes, antecedents, and maintaining factors of the problem behavior (McLeod et al., 2013). A good case conceptualization grounded in empirical findings provides a guide to assist in formulating plans for intervention and evaluation of the effectiveness of the intervention. Intervention strategies follow naturally from the assessment process if the child’s development and behavior, and the physical and sociocultural context in which he or she lives, have been examined systematically. Section VI of Table 2.2 describes possible intervention strategies relevant to the general areas assessed, including the child’s development, the parents, the environment, the consequences of the behavior, and the medical/health status of the child. For example, targets for change may be the child’s behaviors, feelings, thoughts, or some combination of these, with cognitive and emotional developmental areas guiding the choice of treatment method. The focus for treatment in the preschool years is usually the child’s behavior, and parenting skills training is the typical mode of treatment. As the child’s cognitive skills develop and he or she is better able to reflect on inner emotions, thoughts and feelings become targets for intervention, with a greater reliance on cognitive-behavioral treatments. Parenting skills also may be a focus for change, but the types of skills will change with the age of the child—from contingency management techniques, or rewards and consequences, in the preschool and school-age years to negotiation techniques and communication skills in adolescence. Environmental targets for change also vary from changing the daily routines of the child or family to changing the emotional atmosphere in the home.

The CAIS framework should not be seen as rigid. Rather, it is offered as a systematic way to gather and organize information, to generate and test hypotheses, and to plan interventions for children's problems. The data can be obtained from a variety of sources and different methods. The CAIS is useful for simple or complex cases; it also works well to assist the clinician in gathering and organizing essential information very quickly. A case example taken from a parent call-in service in a pediatric primary care setting demonstrates a brief (15- to 20-minute) assessment-to-intervention process involving a 6-year-old girl who was disrupting her class in school (Schroeder, Gordon, Kanoy, & Routh, 1983). As illustrated in Table 2.3, most of the necessary information was gathered quickly by listening carefully and asking specific questions.

TABLE 2.3. The Assessment Process in a Brief Case Example

I. *Clarifying the referral question.*

A father called at the request of his daughter's first-grade teacher, who was concerned that the 6-year-old girl, once or twice a week, became distraught, walked in circles, and cried inconsolably. The clinician stated, "It sounds like Jane is disrupting the class and her teacher is not able to give her or the other children the attention they need. You're also wondering why she seems so genuinely distraught one or two times a week."

II. *Determining the social context.*

The father indicated that he and his wife were separated and that Jane was living with him.

A. Listening to affect

"I had so hoped this wouldn't happen again in Jane's new school. I don't know what I can do to help her."

B. Who is concerned?

The teacher was concerned for both Jane and the other children. The father stated, "I have been worried about Jane for the last 2 years, but generally her teachers and I have been able to calm her down."

C. Why now?

Jane just started in a new school.

III. *Assessing general areas.*

A. Developmental status

"Jane is a very bright child who rarely gives any problem at home. She has friends in the neighborhood and generally likes going to school. She met her developmental milestones on time; however, recently she started wetting herself during the day and having nightmares."

B. Parent and extended family characteristics

"Her mother and I have been divorced for 3 years and went through a terrible custody battle. We still fight a lot about Jane."

C. Environmental characteristics and events

Jane visited her mother every Wednesday and every other weekend. She hated to go, reported being left alone, and was afraid of some of her mother's friends.

D. Consequences of the behavior

The father described the ways in which he had tried to deal with Jane's upset:

"I tell Jane that the court says she has to visit her mother, that she should love her mother and have a good time. I also have told her not to act up in school because it gets me in trouble."

E. Medical/health status

"Although Jane has generally been healthy, in the last 3 months she has been to the doctor because of her wetting. She has complained of stomachaches and has had nightmares. I also should tell you that the department of social services investigated my ex-wife's charges against me for sexual abuse, which were not substantiated. Recently, Jane's doctor called the department because Jane had a number of bruises when she came home from a visit with her mother."

IV. *Assessing specific areas.*

A. Persistence of the behavior

"Jane has been upset since the divorce, 3 years ago."

B. Changes in the behavior

"She has never liked to visit her mother, but in the last 3 months it has gotten to the point where I have to force her to go."

C. Severity of behavior

"The night before she goes to visit her mother, she becomes very upset, doesn't listen to me, and has a very hard time getting to sleep. Sometimes she has nightmares."

D. Frequency of behavior

"These problems only seem to occur when she has to visit her mother."

E. Situation specificity

"She used to be upset only at home, but now it's happening at school too. I also think she looks sad a lot of the time."

F. Type of problem

This child's behavior was indicative of significant emotional distress. She was beginning to exhibit a variety of problematic behaviors both at home and at school. The extent of her upset was likely to have serious consequences for her functioning and development unless immediate intervention took place.

V. *Determining the effects of the problem.*

A. Who is distressed by the behavior?

The child, the parents, the teacher, and other children in school.

B. Interference with development

The behavior was already interfering with Jane's adjustment at school. Most importantly, the child's emotional needs were not being met. Furthermore, she had few appropriate alternatives available to express her feelings.

VI. *Determining areas for intervention.*

The severity of this child's behavior and the complexity of the situation warranted further evaluation and treatment. In the meantime, the father and teacher were advised to work together to provide more emotional support within the school environment on the days Jane visited her mother. The father was also advised to tell the child, "It's OK for you to express your emotions if you're feeling bad on those days." The father and teacher were told to give her specific ways to express her feelings, such as drawing, working with clay, or simply talking to them.

METHODS FOR GATHERING INFORMATION

Given the complexity of children's behavior and the potential contributing factors to emotional and behavioral problems, it is important to use several methods for gathering information from different informants and across settings. Psychological assessment should be seen as "construct-driven" rather than "test-driven" (Frick et al., 2010).

Therefore, it is important to be familiar with the research literature on psychological constructs that describe children's emotional, behavioral, and social functioning. Given the uniqueness of each child and family, there is no one battery of assessment methods or tests that can be used for every case. The chosen assessment methods depend on the purpose of the assessment, the nature of the behavior problem, the characteristics of the child and the family, the assessment setting, the characteristics of the assessor, and the characteristics of the available methods (Sattler, 2014). Methods can include interviews, behavioral checklists and questionnaires, self-monitoring procedures, analogue methods, direct observation of behavior, psychophysiological recordings, social competence measures, developmental measures, anxiety hierarchies, role playing, simulated problem situations, projective tests, tests of perceptual–motor functioning, sociometrics, and ecological assessment, as well as standardized tests of ability, achievement, and personality. In choosing assessment methods, the clinician should be aware of a particular method's empirical validity and developmental sensitivity.

It is beyond the scope of this book to review all of the various methods used in the assessment of children. The interested reader is referred to Sattler (2014) and Frick et al. (2010) for in-depth discussions of interviewing techniques, rating scales, standardized tests, and assessment methods for specific disorders. Descriptions of assessment instruments we have found most useful are provided in Appendix A. We outline in the next section the order in which we gather the information described in the CAIS framework, with special emphasis on parent and child interviews, integration of information across informants, and the feedback session.

Step 1: Initial Contact

The initial contact is most often a telephone conversation, during which the behavior or behaviors of concern are described and the referral question is clarified. Knowledge gained from this contact should guide the type of information that is gathered prior to the initial or intake interview, as well as who will be seen in that interview. We have found that it is essential to have the parents complete and return two items before or during the initial interview: (1) a general parent questionnaire, and (2) a norm-referenced behavior rating scale. The General Parent Questionnaire we use (see Appendix B) provides information on (1) the family's SES; (2) the child's developmental milestones, day care history, and school history; and (3) the parents' perception of the child's problem, its causes, and what they have done about it thus far. The parent rating scales that we use most frequently are the CBCL (Achenbach, 2013; Achenbach & Rescorla, 2001a, 2001b); the BASC-3 (Reynolds & Kamphaus, 2015), the Eyberg Child Behavior Inventory (ECBI; Eyberg & Pincus, 1999), the Conners 3rd Edition (Conners 3; Conners, 2008) and/or the Parenting Stress Index, Fourth Edition (PSI-4; Abidin, 2012). Rating scales provide a broad assessment of problems, foster objectivity through the specificity of the individual items, and allow assessment across settings in a time- and cost-efficient manner. Other more specific symptom questionnaires are added, depending on the referral issue.

Rating scales are not interchangeable, and the clinician should be aware of the purposes, strengths, and weaknesses of individual scales. The CBCL, for example, is the most widely used parent rating scale. It covers a broad range of emotional and behavioral functioning for ages 1½–5 years and 6–18 years, but it combines the constructs of anxiety and depression, and of hyperactivity and inattention into single scales (although now it also includes Diagnostic Scales to address these issues). On the other hand, the BASC-3 takes a broad sampling of behavior at home and in the community for the preschool (2–5), child (6–11), and adolescent (12–21) age ranges; it has single scales for Anxiety, Depression, Hyperactivity, and Inattention, as well as an Adaptive Behavior scale. The CBCL and the BASC-3 parent rating scales are both part of larger assessment systems that include ratings from teachers, parents, and the youth, as well as direct observation. This allows similar information to be gathered from multiple informants in a reliable and valid manner.

The ECBI assesses the intensity and generality of conduct problem behaviors for ages 2–18 years, as well as parent tolerance for these behaviors. The PSI-4 assesses the child-rearing environment of children between 1 month and 12 years of age. It includes a Child Domain, which assesses the qualities of the child that make it difficult for the parents to fulfill their parenting role, and a Parent Domain, which assesses sources of stress and disability related to parent functioning. This measure is one of the few ways of assessing problems in infancy. The Conners 3 (Conners, 2008) is another well-known battery that has a range of problem behaviors, but it has been used primarily for its Hyperactivity Index. In addition, the Child and Adolescent Symptom Inventory–5 (CASI-5; Gadow & Sprafkin, 2013) is a questionnaire for children ages 5–18 that lists symptoms from the DSM and may help clinicians hone in on particular problem behaviors about which to ask more questions during diagnostic interviewing.

Other information may also be requested prior to the first session, depending on the presenting problem. We may ask parents to provide daily records of the child's behavior, for example. Although the information requested will vary depending on the behaviors of interest (e.g., sleep diary, feeding diary, habit diary), we have developed a general Daily Log (see Appendix B) on which parents record appropriate and inappropriate behavior and give their child a rating from 0 ("dreadful") to 10 ("fantastic!"). On the reverse side of the form, parents record the antecedents and consequences of behaviors identified as specific problems. This record helps parents document what the child is *actually* doing on a daily basis (in contrast to what they *think* the child is doing). The Daily Log can also be used during treatment to help parents and the clinician monitor progress. As an example, a mother called with a concern about her 3-year-old's disruptive behavior, which she felt was "not really bad," but which her parents had told her was a significant problem. Recordings on the Daily Log during the week prior to the initial interview included behaviors such as “Kicked his grandfather in the shin,” “Scraped the new kitchen wallpaper with a knife,” and “Bit several children at day care!” Collecting the information on the Daily Log helped to show the severity level of the problems and validated the need for the mother to come for the initial assessment.

At the time of the initial contact, we inform parents that several questionnaires or rating scales will be sent for them to complete and return to the clinic prior to their appointment We describe the various questionnaires and forms, and discuss the importance of this information in helping us to understand the problem (e.g., “The general behavior questionnaire will give us information regarding how your daughter’s behavior compares to other children her age,” or “The Parenting Stress Index will help us understand how your son responds and interacts in his environment, as well as any stresses you are currently experiencing”). Parents are always given the option of not completing the questionnaires at this point in the assessment process if they are uncomfortable doing so. This information, however, helps the clinician plan for the initial interview by developing various hypotheses as to the nature of the problem. With time pressures related to managed care, or increased management of treatment by insurance companies, many clinicians may feel that this is an unnecessary, time-consuming, and expensive process that is best left until after the initial interview. We have found, however, that having this information prior to the interview not only decreases the time required for assessment but also facilitates rapport with the parents, because we are able to focus more quickly and specifically on their concerns. Another option is to have the parents come 45 minutes to 1 hour before the scheduled appointment to complete the forms and have them scored. The clinician then reviews them prior to the interview. If parents do come early and the child accompanies them, it is important to have age-appropriate activities for the child while the parent is completing forms.

Step 2: Initial Intake Interview

There are several ways that clinicians can gather information in the initial interview. An *unstructured interview*, or an interview in which the clinician follows the client’s lead about gathering information with follow-up prompts, is often the standard assessment tool in community settings for determining emotional and behavioral disorders of childhood, despite the fact that it is fraught with a number of problems (McClellan & Werry, 2000; McLeod et al., 2013). According to McClellan and Werry (2000), these problems include (1) determining diagnoses before enough information is gathered; (2) being selective about information collected to confirm a diagnosis and/or ignoring information that rules out a diagnosis; (3) inconsistently combining different types of information; (4) making diagnoses or judgments based on what is familiar to the clinician; and (5) making inaccurate correlations or missing real correlations.

As the criteria for diagnosis have become more detailed in the DSM, *structured interviews* designed to give "yes" or "no" answers about particular symptoms have become more popular but are still mostly used in research settings (McClellan & Werry, 2000; Rettew, Lynch, Achenbach, Dumenci, & Ivanova, 2009). Structured interviews involve a prearranged set of questions to be asked in sequential order usually to gather information about specific DSM disorders. These interviews can vary in the degree of flexibility (e.g., the interviewer can follow up on questions or not ask all of the questions), but greater freedom decreases their reliability. Although providing a more standardized format, structured interviews generally give global information about the existence of a DSM disorder rather than specific details about a particular child, family, or peer group that are needed for planning an intervention program (Frick et al., 2010). In addition, they may seem more mechanical to families, which does not encourage rapport building, and parents have less ability to give their perspective or description of the problem. Structured interviews can also be very time-consuming, with less depth of information about the function of the problem behavior. Given the limited time clinicians often have for initial/intake assessments, structured interviews may be more difficult to use. However, it may make sense to follow up with particular sections of structured interviews to focus on specific disorders after the clinician has screened for broad areas of symptoms with initial questionnaires.

In contrast to the structured interview, the *semistructured interview* requires prior knowledge about the nature of the specific presenting problem, which guides both the question content and the process of the interview. On the basis of this knowledge, the interviewer determines what questions and follow-up questions will be asked, and what responses from the client need clarification. The semistructured interview allows the clinician more freedom to explore the nature and context of the problem, as well as the opportunity to investigate potential contributing factors, such as stimuli that may elicit the problem behaviors. Moreover, this type of interview allows the clinician to begin to delineate acceptable behavioral alternatives, as well as other potential problem areas for the child or family.

All three types of interviews may play a role in the assessment of children (Sattler, 2014). Unstructured interviews may be preferred in some settings, such as crises, when information needs to be gathered quickly and immediate decisions must be made. Structured interviews can be used more effectively when there are several comorbid issues that need to be systematically explored. However, we feel that the semistructured interview gives the most flexibility to tailor questions to particular problem areas and elicit unique client information. We use such an interview within the CAIS framework along with other, empirically derived methods as needed for the assessment of childhood problems. This also allows the clinician to build rapport and get more detailed information and concrete examples, including antecedents and consequences, of the problem behavior.

Parent Interview

The parent interview has many purposes: (1) obtaining informed consent; (2) gathering information about the child, family, and environment that is outlined in the CAIS framework (see Table 2.2); (3) establishing a collaborative and supportive relationship; (4) gathering information about parent concerns, expectations, and goals; (5) assessing parent perceptions and feelings about the child's problems and concerns; (6) setting realistic goals for assessment and intervention; (7) communicating about procedures that are to be used; (8) educating parents with respect to the nature of the child's problem, its prevalence, its prognosis, and its possible etiologies; (9) assessing parent affective state, motivations for changing the situation, and resources for taking an active role in the change process; and (10) providing an adequate rationale for proposed follow-up and/or interventions (Frick et al., 2010; Sattler, 2014).

The initial contact should help determine who should attend this first interview. It is important to include both parents if both are actively involved in the child's life. If a parent calls about an impending marital separation, for example, it is critical that both parents be included in the initial interview; if one parent objects, the reasons for doing this should be explained (see Chapter 13). If the child is referred for an evaluation by someone other than the parent (e.g., courts, social service, school), it is particularly important that both parents have an opportunity to express their views on the need for the assessment and what they expect will be the result of the evaluation. If parents are unable or unwilling to participate in a joint interview, an attempt should be made to interview them separately, even if this is done by telephone. Each parent brings his or her own perspective on the problem and also provides information about his or her willingness to support the child's treatment. In addition, if a person other than the parent is the child's guardian, it is important that person brings legal documentation of his or her ability to sign consent for services for the child.

After a short overview of the reason for referral, the clinician should review the administrative and privacy policies of the clinic (e.g., Health Insurance Portability and Accountability Act; HIPAA), consent for services, and confidentiality and limits to confidentiality. It is important the clinician inform the parent that the clinician is a legally mandated reporter, so that statements of abuse to children would need to be reported to the appropriate authorities (e.g., child protective services). The clinician should be very familiar with the reporting laws of the state in which he or she practices (see *www.childwelfare.gov* for resources and state statutes). See the next section for more details about reporting maltreatment. Of the professionals mandated to make a report, most reports are made by education (17.5%), law enforcement (17.5%), mental health/social services (16.5%), and medical personnel (9.0%), according to data through 2013 (U.S. Department of Health and Human Services, 2015).

Most community settings in which insurance is used require that the client, in this case, the child, be present for the initial interview. Therefore, the clinician can set up the meeting in which the child is present when the family members are interviewed about referral issues. The child's age and developmental level will help to determine how much the child is involved. When the referral involves a preschool-age child, it is most helpful for the child to have age-appropriate activities available while the clinician talks with the family members. Older children may be able to participate more in the information gathering. Also, this is a good opportunity to observe the child and the parent–child interactions during the interview. Who answers more of the questions? Do the child and parents disagree about information, and if so, do they argue about it? Is the child quiet during the whole interview with parents but discusses issues when interviewed separately? Is it very difficult for the child to stay in one place and focus on questions asked? If there is sensitive information to be discussed with parents, this could possibly be done at the end of the session, without the child present, or during a follow-up phone call. It may be helpful to interview older children separately first, to help establish rapport with them, then bring in their parents to collect information from everyone.

Interviewing parents/families is an interactive process that sets the tone for future intervention efforts. To promote collaboration, it is important for the clinician to create an atmosphere that puts parents at ease in discussing their child's problems and gives them a sense of optimism that their lives can improve as a result of professional help. Characteristics of a good interview can contribute to a positive tone and provide a model for the family about discussing difficult issues. These include warmth, empathy, a nonjudgmental approach to emotions and cultural differences, and an ability to keep the interview moving along in a smooth, purposeful fashion (Sattler, 2014). The ability to listen is also an essential skill. Listening helps parents focus on the problem, and reflecting and paraphrasing lets parents know they have been heard (Rosengren, 2009). Recognizing parents' distress as they discuss areas of concern encourages them to share their fears and beliefs about a problem.

It is helpful to begin the interview by briefly summarizing what is known about the situation, explaining the purpose of the interview (e.g., to get a better understanding of the parents' concerns in order to help determine what, if any, intervention is necessary), and obtaining informed consent (e.g., limits of confidentiality, details of any assessment procedures that will be used). This gives parents some initial information about what is expected of them, as well as what they can expect from the clinician. Furthermore, it helps them to start talking about their concerns. Whereas it is important to get a thorough understanding of the nature and context of the problematic behavior, it is not possible or advisable to assess everything in the child's or family's background at this time. Background information is important, but the goal is to be selective in pursuing areas with particular relevance to the presenting problem. It also should be remembered that working with children almost always involves an ongoing relationship with the parents, so if a relevant area is missed initially, it is very likely to be discussed in future meetings. Some possible difficulties with the information collected during parent interviews include inaccurate recall, parents' conflicting perceptions of the child, and a tendency to describe the child in unrealistically positive or negative terms (Kanfer, Eyberg, & Krahn, 1992). Focusing on the current situation—that is, current behavior, current child management techniques, and current family strengths and weaknesses—can help increase the reliability of parent reports. Asking for examples may also help the parents describe the problem in more concrete behavioral terms.

Time should be allowed at the end of the initial interview to summarize and integrate the information gathered. A comprehensive summary lets the parents know that their concerns have been accurately heard and gives them feedback on the clinician's initial conceptualization of the problem. An explanation should be given for why any additional information is needed (e.g., school visit, home visit, behavior rating scales, psychometric testing of the child, observations of parent–child interactions, medical evaluations) and how this information will be gathered. If possible, potential treatment strategies should be discussed, as well as the estimated length of time and cost for treatment. Although it may not be possible to give all of this information without further assessment, it is important that the parents have some understanding of what is going to happen next and a sense of hope that something can be done to help them and their child. The clinician can develop a collaborative relationship with parents by sharing information with them and allowing them choices in how to proceed. Asking the parents what they think (or feel) about what they have heard, and engaging them in the process of determining the next step in the assessment process and setting treatment goals, encourages them to be part of this process and maximizes the chance that they will support the child's treatment.

Reporting Maltreatment

When families report behavior that is possibly harmful to children, there is a likelihood that clinicians will need to report these events to child protective services (CPS), particularly when there is violence toward children. Although there is not a commonly agreed-upon definition of child abuse and each state has its own definition, each generally reflects a definition by the federal Child Abuse Prevention and Treatment Act Reauthorization Act of 2010 (CAPTA): "Any recent act or failure to act on the part of a parent or caretaker which results in death, serious physical or emotional harm, sexual abuse or exploitation; or an act or failure to act, which presents an imminent risk of serious harm." The general areas recognized by most states are neglect, physical abuse, psychological maltreatment, and sexual abuse (U.S. Department of Health and Human

Services, 2015). The clinician should be aware that societal attitudes toward child discipline and sexual contact influence the behaviors that are defined as abusive. From a practical perspective, when determining whether something is reportable, clinicians should focus on understanding the specific behavior that is reported, the context in which this behavior occurs, the intent of the participants, and the harm that occurs to the child.

All 50 states have child abuse and reporting laws based on standards set by the federal government. Clinicians are listed as mandated reporters who need to report suspected maltreatment to a CPS agency. Since each state has different reporting laws, it is important for clinicians to be cognizant of the laws in their particular state (state statutes and resources can be found at *www.childwelfare.gov*). When a clinician determines the need to make a report, there are several things to keep in mind. Much of the time, families have come to the clinician because they are having difficulties with child behaviors, their present strategies to lessen the behaviors are not working, and they are looking for more effective strategies to solve the problem behavior. During the interview (or treatment process) the parent or child may describe to the clinician parenting practices that prompt the need to report. Clinicians who are unsure whether information is reportable can consult with CPS for advice on the issue before moving forward (Pietrantonio et al., 2013). For many cases, the clinician can be very clear to the parent about the reason and need to report to CPS (e.g., "I'm worried about the safety of your child with the present way you are correcting his or her behavior and since I'm a mandated reporter I need to report this to CPS"). The clinician should have already told the family at the initial appointment about being a legally mandated reporter, so this should not be a surprise to the family. If there is not an immediate safety risk to the child (e.g., severe bruises found on the child and/or the parent appears very angry and may retaliate against the child for the report), the clinician can discuss with the family the process of the report (e.g., the clinician making the report separately or the family being a part of the report) and possible outcomes (Pietrantonio et al., 2013). The clinician can also explain to the family that the goal of CPS is safety of the child and providing resources for the family to manage the child. This can be a very emotional subject for the family, and parents may feel that the clinician is purposely making it difficult for them and that the child will be taken out of the home. However, the clinician can discuss the purpose of treatment to learn new strategies to address the problem behavior, the caregiver's willingness to come to treatment, and other strengths of the family that can also be shared with CPS. Validating the parent's emotions particularly about trust of the clinician and maintaining amicable interactions through this process can help the family and clinician continue the treatment process after the report. Unfortunately, mandated reporting leads families to disrupt treatment services approximately 25% of the time (Steinberg, Levine, & Doueck, 1997). Predictors of continuing treatment include a strong therapeutic alliance before the report was made, the clinician being open about the process and his or her role as a mandated reporter, and the clinician appropriately managing his or her own discomfort about the reporting role.

After a referral is made to CPS, it is either screened in for further inquiry or screened out. Clinicians are informed of this decision, usually in writing. Most reports that are screened in are then followed by investigations that may include follow-up with the clinician to clarify information, interviews with family members, and/or school information. Each state lists the amount of time that should be taken and what types of dispositions or results may come from the investigation. The investigation should make a determination of maltreatment or risk of maltreatment and establish next steps, which may include treatment and/or legal interventions (U.S. Department of Health and Human Services, 2015). Referrals to CPS increased by 12% from 2009 to 2013. During 2013, approximately 3.5 million referrals were made to CPS involving 6.4 million children, with 60.9% of these reports screened in. The two most prevalent dispositions are *substantiated,* in which the allegations of maltreatment or risk are supported, or *unsubstantiated,* in which the investigation concludes that there is not sufficient evidence for the allegations. Perpetrators of maltreatment are most often one or both parents (91%) and within nonparents, the largest categories are male relatives and male partners of parents (U.S. Department of Health and Human Services, 2015). Of those children designated as victims of maltreatment, approximately 36% received foster care services, and 5% of victims were reunited with their families within 5 years.

Child Interview

Although self-reports by children prior to age 9 (Chambers & Johnston, 2002; Edelbrock, Costello, Dulcan, Kalas, & Conover, 1985) may be seen as more unreliable, particularly for children with externalizing problems (McMahon & Frick, 2005), we have found that interviewing children at almost any age can provide useful information about the child's interests, perception of him- or herself (e.g., wishes, fears, interests, self-concept), the environment (e.g., peers, school, family), the presenting problem, and the child's attempts to cope with and solve personal and interpersonal problems. Other purposes of the child interview are to develop rapport (in order to facilitate the child's engagement in and cooperation with further assessment or treatment), and to informally assess his or her cognitive, social, and perceptual–motor skills. Building rapport with a child can be difficult, because children usually are not very motivated to cooperate in the interview process. Children typically do not refer themselves, and they may be worried that they are being blamed for the referral problem. Furthermore, the assessment process is unique for most children, so they have no idea what to expect. Thus, the interview must be tailored to the individual child's developmental level and needs (Frick et al., 2010; Sattler, 2014).

Various things can be done, beginning at the first contact with the child and continuing throughout the interview, to facilitate establishing a relationship with the child and gathering the needed information. Meeting the family in the waiting room gives the clinician the opportunity to observe the child's physical appearance, mood, activity level, and parent–child interactions. Greeting the parent and child by name, with a friendly and interested tone of voice, conveys to the child that the clinician is interested in him or her and glad that the child is present. It is also important for the clinician to introduce him- or herself to the child by title and full name (e.g., "I am Dr. Carolyn Schroeder, a psychologist, and I will be talking with you and your parents today"). Inviting both the child and parent to accompany the clinician to the interview room gives the child an opportunity to see where he or she is going while with the parent. It is often helpful at this point to comment on something the child is wearing, is doing, or has brought to the session (e.g., "I see that you have a stack of baseball cards. I hope that you will show them to me"). A good time to clarify the reason for the interview is while the parents are with the child—for instance, "I am glad to talk with you today, John. Your mother and dad have told me that you play on the soccer team and that you recently got a badge in Scouts. That is great. Do you know why you are here today?" Children usually say "no" or decline to answer this question, and parents can be asked what they have told the child. The clinician can then continue, "Your mother and dad also told me that things have not been going well for you in school, and they would like to help make things better for you. I talk to many children who have had problems in school, and I would like to help you and your parents find ways to make things better." At this point, the parents can be asked to go to the waiting room, which lets the child know where they will be during the interview.

It is important to orient the child about what to expect in the interview, including the length of the session, what the clinician and child will be doing and talking about (e.g., school, friends, what the child likes to do), and issues of confidentiality. Providing the child with age-appropriate, unstructured materials (e.g., crayons, Legos, Play-Doh) to play with while talking may help a child feel more comfortable. We may also begin with an activity, such as a sentence-completion or Draw-a-Person task, to help the child feel more comfortable. There are several communication techniques that facilitate rapport building (Querido, Eyberg, Kanfer, & Krahn, 2001). The clinician should (1) use language at or just above the child's cognitive/language level (shorter, less complex words and sentences); (2) be responsible for keeping the conversation going given that most children interpret silences as disapproval; (3) avoid asking many direct questions (these can be seen as demanding), leading questions, or blaming questions (e.g., "why" questions); (4) introduce topics of interest to the child that are developmentally appropriate (e.g., TV shows, games, activities); (5) use descriptive statements about the child's clothing, demeanor, or activity; (6) use reflective or summary statements to help convey genuine interest in the child; (7) verbally praise the child; and (8) use structured, concrete questions ("Can you tell me one thing you like about school?" vs. "What do you like about school?”). It is also important to let children know that it is OK if they do not know the answer to a question the clinician asks them.

At the end of the interview, the clinician should summarize for the child what they have just discussed, and ask the child if he or she has any other information or questions. Letting the child know what will happen in future meetings is also important. If testing is to be done, then this should be briefly described for the child.

Play

Play has an important role in the development of cognitive skills, creativity, and adjustment, and therefore can provide information about these areas (Valentino, Cicchetti, Toth, & Rogosch, 2011). Observation of independent and interactive play can provide information about young children’s perceptions of their world, intellectual and language development, feelings, thoughts, social relationships, and current concerns and anxieties. A variety of age-appropriate toys should be available, and the degree of structure provided during the play observation should also be varied, to determine the child’s response to demands and ease in changing activities. Legos or other building materials, for example, provide an opportunity to observe fine motor skills, frustration level, distractibility, persistence, creativity, and the use of help. Puppets allow observation of language skills, symbolic and pretend play, emotional expression, and coping skills. A doll house allows the child to demonstrate organizational skills, perceptions of family interaction, and role play. Simple rule-governed games such as Sorry, Uno, and Candyland reveal cognitive skills, compliance, frustration tolerance, and interactive play skills. The overall patterns of behavior in play are more important than any specific behavior (e.g., aggression only during puppet play vs. aggression with all types of material).

Step 3: Observation of Behavior

The direct observation of behavior is an important part of the assessment process, because it provides an objective view of the nature, antecedents, and consequences of the child’s behavior (McLeod et al., 2013). Given the time and expense involved in doing direct observations outside of the clinic, however, they are often excluded from the assessment process. In addition, it is often difficult to get an adequate sample of some behaviors; the recordings can be unreliable; and behavior can change when children are aware that they are being observed. Even with these difficulties, direct observations are often necessary to help the clinician understand and delineate the problem in its natural environment, as well as monitor the progress of treatment.

Direct observations require explicitly defining the concrete target behaviors to be observed (what); selecting the most appropriate setting in which to observe the behavior (where); determining how the target behaviors will be coded (how); and deciding who will observe the target behaviors (who). Observations can be done either in the child's natural environment (e.g., home, school), in the clinic, or in a research laboratory. Although the latter settings can be more controlled and reliable, the ecological validity of observing in a natural setting cannot be overestimated. The way in which a behavior is recorded depends on the target behavior (e.g., tics, sleep, on-task behavior). Methods include counting the number of times it occurs (event recording), noting the length of time the behavior occurs (duration recording), and indicating whether or not the behavior occurred during a preset time interval (time sampling). The observational recordings can be made by the child, a parent, a teacher, or an outside observer (e.g., the clinician or someone unknown to the child).

Given the significance of the parent–child relationship, observations of parent–child interactions are extremely important. Several systems have been developed for structuring and recording these interactions (Eyberg, Nelson, Ginn, Bhuiyan, & Boggs, 2013; for a list of measures, see Sattler, 2014). The clinic version of the Dyadic Parent–Child Interaction Coding System, Fourth Edition (DPICS-IV; Eyberg et al., 2013) can be readily used by clinicians. Although the DPICS is typically used to code the behavior of parents and preschool children, we have also found it useful for older children. The value of this coding system is that it recreates typical everyday situations for families and codes how often they respond to each other in certain ways: (1) Child-Directed Interaction, in which the parent is instructed to allow the child to choose any activity and to play along with the child; (2) Parent-Directed Interaction, in which the parent is instructed to select an activity and to keep the child playing according to parental rules; and (3) Cleanup, in which the parent instructs the child to clean up the toys. Within each of these 5-minute interaction periods, the clinician can code the parent's response to child compliance, noncompliance, and misbehavior and the child's response (e.g., complies, noncomplies, or no opportunity) to parental commands. This system may be used not only in assessing a family but also throughout treatment to show how parents have increased their skills. Two other commercially available observational systems for recording classroom behavior are the BASC Student Observation System (BASC-SOS; Reynolds & Kamphaus, 2015) and the CBCL Direct Observation Form (CBCL-DOF; Achenbach, 2013; Achenbach & Rescorla, 2001a, 2001b). Both of these systems can be used in conjunction with other components of the BASC-3 and the CBCL, and with summary descriptions of the observer. The BASC-SOS is a 15-minute observational system that specifies 65 target classroom behaviors, and the CBCL-DOF is a 10-minute observational system that specifies 96 possible behaviors. See Appendix A for further descriptions of each of these observational systems.

An individualized observational system can also be developed for a particular child or type of problem. Given an appropriate developmental level and ability, a child may also be asked to self-monitor his or her behaviors, such as aggression, talking out in class, room cleaning, going to the bathroom, fighting with siblings, and/or eating (Bloomquist, 2005). Children have been shown to self-monitor their behavior accurately if they have a clear and simple system to record their observations, are reinforced for accuracy by parents, and have another person to monitor their recordings (DuPaul & Stoner, 2014). Research has also shown, however, that children change their behavior as they become more aware of it through self-monitoring. This may be beneficial in a treatment program but more problematic for finding a baseline, or the initial amount of problem behavior.

Step 4: Further Assessment

The data from the parent questionnaire, parent rating scales, parent and child interviews, and informal or formal observation of the child should give the clinician information on the nature of the problem and indicate what other information is needed to complete the assessment process. Information from the school and other areas of child functioning are most often the foci at this stage in the assessment process.

Child Assessment

Further evaluation of the child may include a psychoeducational or neuropsychological evaluation to assess intellectual, achievement, or organic functioning. According to a review of child assessment practices (Cashel, 2002), managed care and other constraints have limited the number of hours approved for assessments. Therefore, testing needs to focus more on the specific assessment questions with clear links to treatment goals. For example, the use of intelligence tests such as the Wechsler Intelligence Scales for Children, Fifth Edition (WISC-V; Wechsler, 2014) or the Stanford–Binet Intelligence Scales, Fifth Edition (SB-5; Roid, 2003) has decreased unless there is a clear need for it, as with the question of intellectual disability, which would also include an adaptive functioning evaluation such as the Vineland Adaptive Behavior Scales, Third Edition (Vineland-3; Sparrow, Cicchetti, & Saulnier, 2016). In addition, the Woodcock–Johnson Tests of Achievement, Fourth Edition (WJ-IV; Schrank, Mather, & McGrew, 2014) and the Wechsler Individual Achievement Test, Third Edition (WIAT-III; Wechsler, 2009) are examples of achievement tests to use if the referral question concerns a possible learning disability. The more limited use of intelligence and achievement testing suggests that it is important for clinicians to recognize assessment requirements in their community and especially in schools for children to receive specialized services. At times, if other academic information is not available, it may be important to have some estimate of the child's level of cognitive functioning in order to tailor treatment for that child, especially when cognitive-behavioral or problem-solving therapy is being considered. The Peabody Picture Vocabulary Test, Fourth Edition (PPVT-4; Dunn & Dunn, 2007), the Kaufman Brief Intelligence Test, Second Edition (KBIT-2; Kaufman & Kaufman, 2004), and the Wechsler Abbreviated Scale of Intelligence, Second Edition (WASI-II; Wechsler, 2011) are briefer methods to gather this information.

As the use of other, more traditional tests have lessened over time, the use of broad-based and narrowband rating scales has increased with children (Cashel, 2002). There are several helpful self-report inventories for children, including the BASC Self-Report of Personality (BASC-SRP; Reynolds & Kamphaus, 2015), which has forms for ages 8–11 (SRP-C) and 12–21 (SRP-A); the Child Behavior Checklist Youth Report for ages 11–18 (Achenbach, 2013; Achenbach & Rescorla, 2001b); the Revised Children's Manifest Anxiety Scale, Second Edition (RCMAS-2; Reynolds & Richmond, 2008) for ages 6–19 years; the CDI-2 (Kovacs, 2011) for ages 6–17 years; and the Multidimensional Anxiety Scale for Children, Second Edition (MASC-2; March, 2013) for ages 8–19 years. These measures are described in more detail in Appendix A.

The use of behavior ratings with children has almost supplanted the use of projective tests, or tests that use more subjective interpretation, such as the Rorschach Test (Meyer, Viglione, Mihura, Erand, & Erdberg, 2011) and the Thematic Apperception Test (TAT; Murray, 1971), particularly since projectives have more questionable validity and reliability, and often take much longer to administer and score (Cashel, 2002). However, there can still be a clinical need for projective tests in gaining information about children. Kinetic family drawings in which children are asked to draw their family and/or their family doing something together may help to build engagement with children and explore family relationships. In addition, the Roberts–2 (Roberts & Gruber, 2005) is a storytelling task designed for children ages 6–18 that has shown good validity in examining children's views of themselves, others, and the world. Such projective tests may also be more helpful if children are unwilling or unsure about giving information about their difficulties, since the purpose of the test is less obvious than behavioral measures.

School Interview

Children who have a problem in one area of functioning are likely to exhibit problems in other areas. Since children spend much of their time at school, it is not uncommon for them to exhibit difficulties in academic performance, classroom behavior, and/or interactions with classmates. The school environment places a variety of demands on children (e.g., sitting quietly, keeping focused, following directions, and interacting with peers) that change as they progress through school. Their adaptation to this environment can have a dramatic impact on their overall psychological adjustment. The details of these difficulties can be obtained through teacher interviews, teacher questionnaires and rating scales, and direct observation in the school setting. Although teachers can provide valuable information on externalizing behaviors such as sustained attention, activity level, or disruptive behaviors, they may be less helpful in identifying internalizing problems such as anxiety and depressive symptoms (Youngstrom, Loeber, & Stouthamer-Loeber, 2000), since those behaviors may not be as disruptive in the classroom.

After the clinician has obtained permission, or a Release of Information (ROI) form, to gather information from the school, a brief phone contact with a teacher can set the stage for establishing a collaborative relationship. Moreover, this conversation helps determine what information should be gathered, as well as what school resources are available to the child. Having a teacher and/or other school professional who has known the student for a while and/or across contexts complete a general school questionnaire (see Appendix B for an example) that provides information on demographics, academic progress, and behavior problems, plus a broadband teacher rating scale, is a time-efficient way to gather a great deal of information. Examples of broad-based measures are the BASC Teacher Rating Scale (BASC-TRS; Reynolds & Kamphaus, 2015), the CBCL Teacher's Report Form (CBCL-TRF; Achenbach, 2013; Achenbach & Rescorla, 2001a, 2001b), and the Sutter–Eyberg Student Behavior Inventory—Revised (SESBI-R; Eyberg & Pincus, 1999). Each of these scales assess the emotional and behavioral functioning of children in school, and, since the CBCL and BASC-3 are multi-informant systems, they permit comparison of behavior across informants. In addition, the Social Skills Improvement System (SSIS) Rating Scales (Gresham & Elliot, 2008) is a comprehensive measure of social skills, with teacher, parent, and student forms measuring a variety of social skills across settings from preschool to grade 6. Although the SSIS measures externalizing, internalizing, and hyperactivity problem behaviors, and the teacher form includes a rating of academic competence, the focus of this measure is on social skills. These ratings help in prioritizing behaviors for intervention (see Appendix A). After a clinician has gathered information from teachers and other school personnel, it is particularly important to give them feedback on the findings and recommendations.

Integrating Information across Informants

Information gathered from the child, parent, and teacher are often not in agreement on the type, frequency, and severity of the child's problems (Achenbach, 2011; Youngstrom et al., 2000). How should the clinician handle this discrepant information in trying to determine the presence of a problem? There is evidence that a simple combining scheme in which information from all sources is weighed equally (i.e., if any informant says there is a problem, it is viewed as a problem) works as well as, and even better than, more complex schemes in which different sources of information are weighed more heavily than others (Offord et al., 1996; Piacentini, Cohen, & Cohen, 1992). Piacentini et al., however, report that the simple scheme works best if the informants are asked to report only on information that they would ordinarily be expected to know. This implies that one informant may have better knowledge of certain behaviors than another informant; for example, teachers know more about behaviors that occur in school (e.g., inattention) than about behaviors that occur outside of school (e.g., sleep problems) (Frick et al., 2010). In addition, clinicians and researchers tend to weigh the information from adults more heavily for observable externalizing behaviors, whereas more weight is given to children's self-reports of emotional or internalizing problems (Youngstrom et al., 2000).

In addition to the type of problem being assessed, the age of the child affects the quality of the information gathered by different informants, for several reasons: (1) As a child grows older, parents may have less knowledge of the child's emotions and behaviors (Youngstrom et al., 2000); (2) as a child moves from a single teacher to multiple teachers, teachers are likely to have less knowledge of the child's behavior; and (3) as the child develops cognitively, he or she is better able to describe emotions and thoughts. Thus, the importance of children's self-reports increases with age, as parent and teacher reports may decrease in importance (Frick et al., 2010). Other factors affecting the validity of reports of various informants include parent psychopathology such as depression (Youngstrom et al., 2000), marital/couple conflict, and the conditions under which the report is completed (e.g., rushed or tired). The motivation of the informant is also a factor (e.g., a parent is seeking custody or a child does not want to admit to a problem). Several rating scales include validity scales that help detect such invalidating response sets (Frick et al., 2010).

There are inconsistencies across different countries relative to how behaviors are seen and/or how rating scales are interpreted when asking parents and children about behavioral issues, so a clinician should not assume that patterns they find in European American families will also apply to diverse families (Rescorla et al., 2013). Some questionnaires, such as the CBCL (Achenbach, 2013; Achenbach & Rescorla, 2001a, 2001b) are beginning to apply multicultural norms to help clinicians address multicultural differences (Achenbach, 2011).

Step 5: Collaboration with Other Health Care Professionals

Effective Communication

The integration of medical and mental health care with Mental Health Parity legislation in 2008 and the Affordable Care Act (ACA) in 2010 has made it increasingly important for clinicians to collaborate with other health care providers. Being a part of a child's *medical home,* as termed by the American Academy of Pediatrics (Sia, Tonniges, Osterhus, & Taba, 2004), or *health home,* as recommended by the American Psychological Association (2009), helps professionals assess a range of potential medical and mental health issues that may coexist and devise a comprehensive treatment plan. For children, the pediatrician is often the first point of contact for problem issues and frequently is the source of referrals to community services (Schroeder, 2004; Stancin & Perrin, 2014). Clinicians can not only assess and treat behavioral/emotional disorders but they can also use behavioral interventions to assist children in complying with treatment recommendations for medical disorders (Smith-Boydston & Kirk, 2016).

In the same way, if the clinician suspects that the child's emotional and behavioral functioning is being affected by fine or gross motor deficits or by medical, language, or neurological problems, then a referral should be made to the appropriate health care provider. In order to establish greater continuity of care, the clinician should develop relationships with a variety of professionals from different disciplines who work with children. This involves understanding and appreciating the particular areas of expertise of these providers, as well as differences in training, experience, and expectations. For example, pediatricians have a fast-paced schedule and are used to "fitting" patients into these schedules, with limited time devoted to psychosocial problems. They are often dismayed to discover that a psychological assessment may not be scheduled for weeks and then takes several weeks to complete. To collaborate effectively with pediatricians, the clinician has to take these expectations into account without compromising standards of care. Communication is a key issue in collaborating with other health providers. It is important that both oral and written communications be timely, problem-focused, jargon-free, practical, concise, and action-oriented.

Step 6: Communication of Findings and Treatment Recommendations

Communicating the findings of the assessment process provides the critical link to the intervention process. This feedback session can motivate parents, teachers, and others to provide the interventions necessary for the child's optimal functioning, or it can overwhelm and immobilize them. Just as the clinician should have initiated a collaborative relationship with parents early in the assessment process, he or she should continue to foster this relationship during the meeting devoted to interpretation of the findings. This can be done by sharing information in jargon-free language, encouraging parents to ask questions and express feelings, and allowing them to make choices on how to proceed. If parents feel that their concerns and observations have not been taken seriously, then they will be less likely to accept the clinician's conceptualization of the problem and treatment recommendations.

The main purpose of the feedback session is to review findings from measures given and recommendations for next steps (Sattler, 2014). It is important to schedule adequate time for the meeting, with most meetings lasting about an hour. Whenever possible, it is important to have both parents attend this meeting, and to ask them whether they would like anyone else to be present (e.g., a relative or teacher). For most community settings that accept insurance, it is usually necessary for the client to attend the feedback session. If this is the case, it may be best to present the findings and recommendations first to the entire family, including the child. However, whereas some parents may want to hear the information first so they can help explain it to the child, other parents prefer that the child attend the whole session. Who attends the session and for how long will depend on the developmental level of the child.

At the beginning of the meeting, it is important to briefly review referral issues and family expectations for the assessment, as well as summarize collected data (e.g., parent and child interviews, parent and teacher questionnaires, achievement testing, and/or school observations). The findings should then be presented with a focus on both the strengths and the weaknesses of the child and family. It is often best to use percentile ranks when reporting test data, so that parents can understand how their child is functioning in relation to other children his or her age. Possible etiologies for the problem should also be discussed. It is important for the clinician to evaluate continually how the parents are understanding and receiving the findings, and to encourage questions or discussions.

After the findings of the assessment are presented, the recommendations should be given, along with possible alternative courses of action. The length of treatment and financial costs should also be discussed. Finally, the parents should be given an opportunity to express their understanding of and feelings about the findings and recommendations, as well as how they would like to proceed. It is particularly important to take into account how the ethnic or cultural background of the parents may affect their understanding or acceptance of the findings. They should be presented with the options to take time to think about the findings and recommendations, to schedule another meeting, and/or to call the clinician if they have further questions.

TREATMENT ISSUES

After an assessment is completed and treatment recommendations are reviewed, it is important that an appropriate intervention follow. Clinicians are often asked to treat children with a range of difficulties and impairment—some whose problems are age-related but persistent (e.g., thumb sucking, sleep problems), and others whose problems have multiple determinants and occur across multiple settings (e.g., anxiety, ADHD). Determining who should receive treatment, what treatment should be given, and how that treatment should be delivered is an ongoing clinical task. Various factors affect this decision-making process, including the availability of services, reimbursement for treatment, attitudes and perceptions of the parents, and training of the clinician. In addition, the clinician should match the targeted problem(s) with the least intrusive, most effective, and most efficient treatment method(s). In this section, we briefly review the current state of outcome studies for child treatment methods and some of the factors that can affect the success of treatment. We then discuss issues related to the pharmacological treatment of children. Specific treatment methods that show an empirical basis for effectiveness are covered in subsequent chapters that focus on particular problems.

Treatment Effectiveness Studies

The types of services and evidence-based treatment methods available to children and families have increased over the past several decades (Weisz, Ugueto, Cheron, & Herren, 2013). This increase reflects a growing understanding that children exist within a family, a peer group, a school system, a community, and a culture, and that their behavior is influenced by all of these contexts and social situations. Intervention has been increasingly directed to treating children within their environments rather than in more restrictive settings, with only about 2% of youth ages 12–17 using inpatient services over the past 10 years compared to about 11% using outpatient services (Substance Abuse and Mental Health Services, 2014a). As inpatient services have shifted to more crisis stabilization, focus has turned to the effectiveness of treating children in outpatient settings.

In 2006, the American Psychological Association defined *evidence-based practice* (EBP) in psychology as "the integration of the best available research with clinical expertise in the context of patient characteristics, culture, and preferences" (American Psychological Association Presidential Task Force on Evidence Based Practice, 2006, p. 273). As EBP has grown, the integration, or dissemination, of these treatments into community settings has been difficult (Garland et al., 2010; Hoagwood, Burns, Kiser, Ringeisen, & Schoenwald, 2001; Weisz, Jensen-Doss, & Hawley, 2006). Overall, studies of mental health interventions in "real-world" clinics are growing, but treatment has generally been found to be less effective in these settings than in research settings. Translating studies of *efficacy*, which are directed at determining whether a particular intervention works under tightly controlled conditions (i.e., clinical trials in academic settings), into studies of *effectiveness*, which are aimed at determining how well a particular intervention works under the conditions in which treatment usually occurs, is an important consideration and there has been much more focus on this in recent years (Weisz et al., 2013). However, there has also been some resistance from community settings to implementing EBP (Nelson, Steele, & Mize, 2006). Questions have been raised about the effects of manual use on the therapeutic relationship and on a clinician's ability to meet clients' emotional needs. There are also concerns about the extent to which manual-based treatments can effectively treat children with multiple problems, what additional training is required, and whether more frequent treatment sessions are required than standard practice (Nelson et al., 2006; Smith-Boydston & Nelson, 2008). To help address these concerns, Weisz et al. (2006) conducted a meta-analysis that contained both academic settings and real-world clinical settings, and found that EBPs outperformed usual care services, although showing small to medium effect sizes. In addition, there was not a difference in outcomes based on severity of problem behaviors or inclusion of minority children. Studies have also shown that comorbidity of problem issues is not a barrier to treatment success with EBP (Weisz et al., 2006). EBP is also more standardized and often more directive than usual services, which may account for some of the increased intensity of delivery and better clinical outcomes (Garland et al., 2010).

Incorporating feedback from community settings, EBP is becoming more flexible for a range of client referral issues (Smith-Boydston & Kirk, 2016). In order to make treatments more manageable for clinician use, there has been consolidation of effective aspects of programs called integrative or modular treatments, with examples for parenting programs (Kolko et al., 2009), anxiety disorders (Chorpita, 2007), and both internalizing and externalizing disorders (Chorpita & Weisz, 2009). In addition, larger state systems such as mental health and child welfare organizations are looking at dissemination and sustainability of EBP in community settings over time (Bond et al., 2014; Sedlar, Burns, Walker, Kerns, & Negrete, 2015) so it will be critical for clinicians to incorporate these concepts into their practice. For example, multisystemic therapy (MST; Henggeler & Sheidow, 2012) and Triple P (the positive parenting program; Sanders, 2012) have been tested for efficacy and exhibit good outcomes in community settings.

Treatment Integrity

An important issue to consider when parents and teachers actively participate in a child's treatment is *treatment integrity,* or adherence to the treatment protocol. That is, are the treatment procedures being implemented correctly and consistently? This is particularly important for children with disruptive behavior problems given the chronicity of these problems over time and the multiple settings in which they are typically exhibited. DuPaul and Hoff (1998) offered a number of suggestions to enhance treatment integrity: (1) The person who will implement the treatment program (e.g., parent, teacher) should be included in the intervention planning process; (2) the acceptability of the intervention strategy should be assessed prior to treatment; (3) the manipulation of antecedent conditions (e.g., allowing choices, making work periods shorter, peer tutoring) versus consequences (giving tokens) should be emphasized; (4) programs should be initially implemented for one period or part of the day; (5) behaviors that are already monitored, such as completed homework or household chores, should be targeted; (6) the entire class should be involved in school programs, rather than focusing on one student (e.g., classroom token system, peer tutoring); (7) available activities should be used as reinforcers; (8) regular feedback and reinforcement for accurate implementation should be provided; (9) the clinician should meet periodically with the teacher or parent to monitor progress and modify the program as needed; and (10) the clinician should work initially with the person who is most positive about program implementation and/or with behaviors that are of the greatest immediate concern. Other EBPs, such as MST, have more formal ways to monitor treatment integrity, and have found that adherence to the treatment protocol predicts improved outcomes for children and families (Schoenwald, Chapman, Sheidow, & Carter, 2009; Smith-Boydston, Holtzman, & Roberts, 2014). Linked to this outcome, MST incorporates therapist and supervisor adherence measures to the treatment protocol to be sure that people at all levels are intervening appropriately with the family.

Consumer Satisfaction

With the advent of managed care, another approach to treatment outcome evaluation that has become popular is consumer satisfaction (Martin, Petr, & Kapp, 2003). Within child treatment services, the focus is usually on parents completing the consumer satisfaction scale rather than children. Although satisfaction and service effectiveness are often equated, there are inconsistent results regarding this assumption, and some suggest that consumer satisfaction, rather than being used as an indicator of effective treatment services, is more about the family's engagement in the treatment process (Garland, Aarons, Hawley, & Hough, 2003). A study using a brief consumer satisfaction measure of parent training, parent–child treatment, and family therapy, for example, found that satisfaction with the treatment process was related to changes in parent behavior ratings, whereas satisfaction with treatment outcome was related to changes in observed child compliance (Brestan, Jacobs, Rayfield, & Eyberg, 1999).

A review of studies has shown that reported satisfaction with the way treatment services are offered generally tends to be high. However, parents tend to be more satisfied when they are actively involved in the treatment, and less satisfied when they feel their perspectives are being ignored and/or they have been forced to come to treatment (e.g., their child is in state custody) (Martin et al., 2003).

Determinants of Attrition

Another critical issue relevant to treatment effectiveness involves factors that influence treatment initiation and completion. Given that only about 20% of children with the most serious needs are receiving mental health services (Hoagwood et al., 2001), it is also concerning that 20-70% of individuals who initiate treatment discontinue prematurely, often after the first two sessions (Gearing, Townsend, Elkins, El-Bassel, & Osterberg, 2014). Many predictors of attrition for children are related to family factors, including single parenthood, low parental education attainment, low household income, and younger parental age. These demographic factors may also interact with other barriers for families, such as parents with child care issues, multiple children receiving treatment, and low social support (Fernandez & Eyberg, 2009; Gearing et al., 2014). In addition, parental stress, depression, and expectations about treatment and outcomes are related to treatment dropout (Gearing et al., 2014; Gordon, Antshel, Lewandowski, & Seigers, 2010). In a review of studies of parent cognitions and attributions in engagement in treatment, Morrissey-Kane and Prinz (1999) found that parents' beliefs about the causes of their child's problems, perceptions about their ability to handle such problems, and expectations about the ability of therapy to help them greatly influenced their engagement in treatment. Parents with an *external locus of control* (i.e., a belief that their children's problems were stable, unchangeable, and outside their influence) tended to use a more authoritarian parenting style, were more dissatisfied with treatment, perceived behavioral management strategies to be less relevant and acceptable, and had poorer treatment outcomes. Conversely, parents with an *internal locus of control* (i.e., a belief that they could exert control over their child) were more likely to remain in treatment and had more positive treatment outcomes.

A review of studies by Gearing et al. (2014) indicates that session attendance can be increased by interventions at several levels, including outreach to families by easier access to services, shorter wait times, reminder calls, and transportation assistance. In addition, positive interactions with support staff and the clinician, a collaborative treatment approach, and psychoeducation about the referral problem and next steps can also assist in positive engagement with the family. The bottom line is that the clinician must identify and assess barriers to participation and work to motivate families to sustain their commitment to treatment. The involvement of parents during the planning and treatment phases of therapy is essential not only to keep parents and children in treatment but also to ensure treatment effectiveness (Henggeler & Sheidow, 2012). In addition, although the use of electronic communications, such as e-mails and texting with families, is in its early stages, a growing literature suggests this format can increase treatment adherence (Gearing et al., 2014).

The Role of Technology

Advances in technology will shape the future of services with children and families. There are many ways that *telepsychology,* or services provided through technology media, may transform treatment to incorporate the use of e-mails, websites, smartphones, and teleconferencing (Smith-Boydston & Kirk, 2016). Applications ("apps") for use with smartphones have also exploded in popularity, and parents have been advised to choose evidence-based apps that promote active, unbiased, meaningful, and socially interactive learning (Hirsh-Pasek et al., 2015). There has also been research to indicate the helpfulness of apps relative to health behavior change in children, including physical activity and diet (Brannon & Cushing, 2015). A similar, positive research base already exists regarding outcomes of telemedicine and videoconferencing to in-person delivery of treatment, particularly with adults served in rural regions and other traditionally underserved areas (Gros et al., 2013). There has been less research on telepsychology with children, which is ironic, since younger generations are more immersed in media and use it more routinely for social interactions (Slone, Reese, & McClellan, 2012). A review of child services conducted with videoconferencing, Internet, and by telephone showed positive preliminary findings of these services instead of face-to-face (F2F), or as an adjunct to F2F treatment, across a range of disorders, including substance use, eating disorders, and emotional distress (Slone et al., 2012). The authors found that these modes of treatment were particularly helpful in providing education about disorders, supporting treatment, and hosting a forum of youth to interact on topics. Currently, Internet-based treatments are being studied for family-based treatment of early-onset obsessive–compulsive disorder (OCD; Comer et al., 2014a), parent–child interaction therapy (PCIT; Comer et al., 2014b), and anxiety/depression (Reyes-Portillo et al., 2014). Even with increased use of technology, there continue to be challenges, including greater need for high-speed Internet access, worries about confidentiality issues, and difficulties using this mode of communication during crisis situations, such as suicidal or homicidal ideation (Gros et al., 2013).

To summarize, successful treatment of children and their families involves developing a relationship with parents (and involvement in the system of care for the child); including them throughout the treatment process; and using effective treatment methods that target the child’s and family’s specific strengths, weaknesses, and needs. Treatment can focus on changing the child’s behavior, the parents’ behavior, the parent–child interaction, the environment, the consequences of the behavior, and/or medical issues. Therefore, it must be focused on multiple levels of interaction, with ongoing monitoring of progress.

Psychopharmacology Issues

A review of psychoactive medication prescribing practices for children and adolescents in the United States highlights the increased clinical use of these medications. There is limited data to support their short- and long-term efficacy and safety, however (Brown & Sammons, 2002; Vitiello, 2007; Weisz & Jensen, 1999). Furthermore, there has been an increase in the use of stimulants, antidepressants, and clonidine not only with schoolchildren but also with preschoolers, particularly for diagnoses of ADHD, bipolar disorder, and disruptive behavior disorders (Fontanella, Hiance-Steelesmith, Phillips, Bridge, & Campo, 2014; Zito et al., 2000). This finding is troubling given that psychiatric guidelines recommend medication use only after psychosocial treatment for preschoolers or for those children showing moderate to severe symptoms (Gleason et al., 2007), but studies show that psychosocial treatments are often not the first line of treatment for young children (Fontanella et al., 2014). Only stimulant drugs have adequate data to inform prolonged use with children. Although the number of efficacy and safety trials for psychotropic medications with children and adolescents is increasing, the rate of progress is slow (Hunkeler et al., 2005; Jensen et al., 1999; Vitiello, 2007). This is of particular concern given the lack of information on the long-term effects of these medications on developing children.

Clinicians should not only be knowledgeable about the efficacy and safety of psychotropic medications but also be aware of parent and child attitudes about such medications (Rappaport & Chubinsky, 2000). Some parents are apprehensive when it is recommended that medication be used to alter their child's mood or behavior, or they may feel that the medication should resolve all of their child's problems. A recommendation for medication may even cause some parents to feel guilty that their child has inherited a biological basis for the problem. Likewise, children often have concerns about the effects or meaning of the use of psychotropic medications. They may believe that it is proof that they are "defective," or that they are responsible for their family problems; they may also be frightened of the tests that monitor the medication (e.g., electrocardiograph). A careful assessment of these attitudes/concerns, and the provision of appropriate information on how the body works and why medication is thought to be needed in consultation with the medication provider, is important before drugs are prescribed.

To summarize, psychotropic medication should be prescribed cautiously by medical providers trained in the use of these medications for children and aware of the efficacy, effectiveness, and side effects. Medication use as the only treatment for children with psychiatric disorders is not warranted. To do so is to overlook the context in which a child lives and the psychosocial influences that place the child at risk for continuing problems. Much research still needs to be done on the efficacy, effectiveness, and safety of medication use with children. We discuss the use of psychotropic medications with specific disorders in later chapters.

RESOURCES FOR CLINICIANS

Frick, P. J., Barry, C. T., & Kamphaus, R. W. (2010). *Clinical assessment of child and adolescent personality and behavior* (3rd ed.) New York: Springer.

Sattler, J. M. (2014). *Foundations of behavioral, social, and clinical assessment of children* (6th ed.). San Diego, CA: Author.

RESOURCES FOR PARENTS

Braaten, E. (2011). *How to find mental health care for your child*. Washington, DC: American Psychological Association.

Wilens, T. E., & Hammerness, P. G. (2016). *Straight talk about psychiatric medications for kids* (4th ed.). New York: Guilford Press.

Center for Parent Information and Resources
www.parentcenterhub.org

National Federation of Families for Children's Mental Health
www.ffcmh.org

PART II

MANAGING COMMON PROBLEMS

CHAPTER 3

Feeding and Eating Problems

Feeding[1] and eating necessitates shared control between parents and children and may be conceptualized as an interactional issue (Davies et al., 2006). Parents control what food is served and when it is served, whereas children control what and how much they eat and how they eat it. Given the extent to which children control eating, it is not surprising that difficulties in this area are relatively common during childhood. In a study of typically developing children ages 9 months–7 years, 50% of the parents reported one problem feeding behavior and 20% reported multiple feeding problems, with younger children having more problems than older children (Crist & Napier-Phillips, 2001). Higher rates of feeding problems, 40–70%, are reported in children with developmental disabilities (Byars et al., 2003), up to 89% in children with autism spectrum disorder (Ledford, Gast, Luscre, & Ayres 2008), and 40–70% of children with chronic medical conditions (Davis, Bruce, Cocjin, Mousa, & Hyman, 2010). Many of these problems are transient and/or do not cause major physical or psychological problems, but persistent problems that compromise health and development are seen in 3–5% of children (Lask & Bryant-Waugh, 2007; Satter, 2000; Swanson, Crow, Le Grange, Swendsen, & Merikangas, 2011).

Feeding problems are usually identified in the first 2–3 years of age and may involve multiple aspects of functioning, including medical, anatomical, developmental, behavioral, temperamental, social, and environmental factors (Silverman & Tarbell, 2009). Thus, a biopychosocial approach is appropriate in the assessment and treatment of these problems. Difficulties in any one of these areas can lead to delayed or interrupted feeding development, which can result in poor nutrition, then impact physical and cognitive development, as well as emotional regulation (von Ranson & Wallace, 2014). There is a broad range of difficulties in terms of the nature and severity of problems; thus, feeding problems are best viewed on a continuum from normal variations of an appropriate developmental stage to persistent problems that compromise the child's health and/or psychosocial functioning. Most problems with feeding come to the attention of pediatricians, who then refer the family to pediatric or behavioral specialists. Given the complexity of feeding and eating problems and potential health risks, the majority of infants and children who are severely compromised are seen in tertiary settings such as pediatric clinics, children's hospitals, and programs for children with developmental disabilities. Feeding problems that cause functional impairments are better described as *feeding disorders.*

We describe in this chapter the normal development of feeding behavior, classify feeding and eating disorders, and briefly cover three feeding/eating problems that occur in infancy and childhood: colic, pica, and rumination. We then discuss avoidant/restrictive food intake problems and obesity in greater detail. The assessment and treatment of cases in which children are or have been medically compromised are included in the section on avoidant/restrictive problems. Obesity is not seen as a mental health disorder, but it is a major physical and psychosocial risk for children, and it is included at the end of this chapter, after we cover feeding and eating problems. Although reports of anorexia nervosa exist in children as young as 7–8 years of age (Bryant-Waugh & Watkins, 2015; Nicholls & Bryant-Waugh, 2009), there is general agreement that it is not common before puberty (American Psychiatric Association [APA], 2013). Thus, anorexia nervosa and bulimia nervosa, which also commonly begin in adolescence, are not covered here. It is important to note, however, that research has documented that there are precursors for adolescent eating disorders that are important in childhood (Micali, Simonoff, Stahl, & Treasure, 2011). For example, there is an association between mothers' eating disorders and their children's (especially girls') self-reported eating disturbances (i.e., feeling too fat and engaging in weight-control behavior) at age 8 years (Jacobi, Agras, & Hammer, 2001; Micali et al., 2011). Other studies of children and young adolescents have also focused on the prevalence of dieting and body dissatisfaction. Thomas, Ricciardelli, and William (2000) found in 8- to 10-year-old children that 46% of the girls and 26% of the boys wanted to be thinner, and almost half of the sample reported dieting. The reader is referred to Bryant-Waugh and Watkins (2015), Fonagy et al. (2015), and Lock (2015) for further discussion of these disorders.

TYPICAL DEVELOPMENT OF FEEDING AND EATING BEHAVIORS

Understanding typical development of feeding patterns is critical in diagnosing and treating feeding/eating problems in young children. Table 3.1 outlines physical and behavioral development related to feeding during the first year. There are enormous changes in children's diet and feeding behaviors during the first year of life. Children begin life eating only one food, milk, and must gradually learn to accept a wide variety of foods. By the end of the first year, most typically developing children are eating many different solid foods and are able to self-feed completely independently.

TABLE 3.1. **Typical Feeding Development in the First Year**

Age	Physical development	Behavioral development
Birth	Physiological distress brought on by hunger Preference for sweet, salty Aversion for sour, bitter	Feeding on demand Colic is common Breast-fed babies experience many new flavors
2–3 months	Sucking and rooting reflexes Extrusion reflex (tongue thrust) Stomach size = 10–20 ml	Nighttime feedings end Colic resolves
3–5 months	Sucking and rooting reflexes fade out New skills emerge: Reach and grasp Hand to mouth intentionally Munching	Begin solid foods Everything goes in the mouth
7–10 months	Lateralization of tongue Sitting up propped Teeth appear	Finger feeding Grabs for spoon Critical period for introducing solids
9–10 months	Pincer grasp Lateral chewing movements Can lick food from bottom lip Sitting up unpropped	Drink from spouted cup Spoon to mouth
12 months		Can use spoon and other utensils
15 months	Stomach size = 200 ml Weight gain decreases to 5 pounds per year	Entirely self-feeding

Infants double their weight during the first 5 months of life and triple it by the end of the first year, gaining about 12–18 pounds in this year (Grummer-Strawn, Reinold, & Krebs, 2010). Between 1 and 2 years of age, children’s weight gain slows and their appetite decreases substantially; during the next 3–4 years, weight gain is only about 5 pounds per year (Kuczmarski et al., 2002). This decrease in appetite, coupled with toddlers’ emerging drive for independence and autonomy, sets the stage for a variety of possible feeding problems. Although feeding problems do occur during the first year, they are much more common during the toddler and preschool years, and parents are often most worried about their children’s eating habits at this time.

Linscheid and Rasnake (2001) stress the importance of preventing feeding difficulties. They recommend that parents expose their children to many different developmentally appropriate foods that are varied in texture and taste. During the transition from milk to solids, acceptance of new foods is shaped by an inborn preference for sweet and salty, and an aversion to sour and bitter (Shelov, Altmann, & Hannermann, 2014). Infants are also born with a predisposition to reject novel foods, but an early experience with a wide variety of tastes and textures leads to easier acceptance of new foods later in life. In this regard, Menella and Beauchamp (1996) note that infants who are breast-fed may have an advantage over bottle-fed babies. Breast-fed babies experience a variety of tastes as a result of variations in their mothers' diets, whereas bottle-fed babies experience only one flavor—that of commercially prepared formula.

Between 4 and 6 months of age, infants eventually accept almost any new taste (Shelov et al., 2014). This is an ideal time to introduce solid foods, as children at this age tend to put everything into their mouths. Moreover, fine motor skills are developing to the extent that children can reach and grasp, and intentionally bring things to their mouths. By age 7–10 months, children who have not been exposed to solid foods that require chewing may have difficulty learning to eat solids later. Wren and Tarbell (1998) suggest that this may result from the lack of opportunity to develop adequate oral–motor skills. Thus, it is important for parents not to revert to pureed food if a child gags on solid food as it is being introduced; rather, they should continue presenting the child with various types of solid foods, especially "finger foods."

Parents should remain flexible while feeding their children during these early years, allowing them plenty of opportunities to exercise their developing skills despite the inevitable mess. Moreover, parents do not need to worry excessively about whether their children are getting proper nutrition. Based on early "cafeteria" studies, Rozin (1990) argued that an innate regulatory system for nutritional intake is probably operating during the first year of life to help ensure that children get adequate nutrition. That is, when presented with a variety of healthy foods and left to their own devices, children tend to eat what they need. In contrast, parental control in the feeding context (e.g., consistently feeding the child, coaxing) can override this regulatory system. A high degree of parental control is associated with eating problems (over- or undereating), weight fluctuations, and preoccupation with food later in life (Shelov et al., 2014). In order to ensure that a child's internal regulatory system continues to operate efficiently, Satter (2000) states that it is the parents' responsibility to provide a healthy array of food and a supportive eating context.

Rejection of various types of food is expected after the first year, as children begin to develop stronger food preferences and their appetites decrease. Repeated exposure to rejected foods, however, increases the chances that a child will try these foods and eventually even learn to like them (Budd & Chugh, 1998). Research has shown that during the preschool years, preferences for a novel food can be changed from rejection to acceptance by presenting the food to the child 8–15 times over a period of about 2 weeks (Sullivan & Birch, 1990). In contrast, removing the rejected food and substituting a preferred food only reinforces the child's refusal and can contribute to more significant problems in the future.

The importance of shared family mealtimes on children's nutritional health was reported in a meta-analysis that included 18,836 children, ages 2 years, 8 months to 17 years, 3 months (Hammons & Fiese, 2011). Overall, they found that children and adolescents who shared five or more family mealtimes a week were 25% less likely to have nutritional health issues than children who ate one or no meal with their family. The shared family meals reduced the odds of being overweight (12%), eating unhealthy food (20%), disordered eating (35%), and increased the odds of eating healthy food (24%). These results indicate that sharing meals can act as a protective factor for a number of eating issues. In addition, sharing meals may allow parents to recognize early signs of detrimental eating patterns and intervene to prevent major eating disorders.

Parents also must teach appropriate feeding and mealtime behaviors. Parents, for example, can be good models for their children by eating a variety of healthy foods in reasonable quantities, by demonstrating appropriate eating behavior, and by engaging in a variety of enjoyable physical activities to stimulate the appetite. It is also important for parents to provide children with healthy meals and snacks on a consistent schedule, and to arrange a pleasant, distraction-free (no screen time) and stress-free setting for family meals. Some mealtime rules for parents and children include (1) having a minimum of five family meals a week; (2) including fruits and vegetables; (3) serving age-appropriate portions to avoid overeating; (4) encouraging children to be aware when they are full; (5) chewing and swallowing food with the mouth closed; (6) using utensils when appropriate; (7) remaining seated until the meal is over (using a highchair or booster seat for young children); (8) rewarding appropriate eating behavior with praise and attention; (9) limiting meals to 30 minutes, then removing the food; (10) allowing between-meal snacks (including juice and milk) only if children have eaten a reasonable amount at mealtime; (11) including children in mealtime conversation, (12) using time out for breaking rules or engaging in other disruptive behaviors (i.e., throwing food, putting a child in a time-out place, then returning him or her to the table) (Christophersen & Hall, 1978; Hammons & Fiese, 2011).

CLASSIFICATION OF FEEDING AND EATING PROBLEMS

The inconsistencies in the use of terminology and diagnostic criteria, and the lack of a universally accepted classification system, have resulted in limited research and treatment efforts for feeding and eating disorders (Bryant-Waugh & Watkins, 2015; Keel, Brown, Holland, & Bodell, 2012). The fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5; APA, 2013) has tried to resolve some of these problems by adding more diagnoses and expanding on current diagnoses. The essential feature of feeding and eating disorders is a disturbance in eating and eating-related behavior that leads to significant distress or impairment in health status or psychosocial functioning. DSM-5 takes a developmental perspective on feeding and eating disorders that covers a range of eating-related problems including eating too little, eating too much, and unusual eating-related behaviors. These disorders include pica, rumination disorder, avoidant/restrictive food intake disorder, anorexia nervosa, bulimia nervosa, binge-eating disorder, other specified feeding and eating disorder, and unspecified eating and feeding disorder (APA, 2013).

The *Diagnostic Classification of Mental Health and Developmental Disorders of Infancy and Early Childhood, Revised* (DC:0–3R; Zero to Three, 2005) has six subtypes of feeding behavior disorders, three of which do not appear in DSM-5: (1) a *feeding disorder associated with a concurrent medical condition* (it does not meet criteria for a mental disorder); (2) a *feeding disorder of state regulation* (a disturbance in the infant reaching and maintaining a calm state during feeding, similar to disturbances of sleep or crying) and (3) a *feeding disorder of caregiver–infant reciprocity.* Together, these two classification systems indicate that the clinician has to distinguish between a feeding or eating disturbance as a symptom of a medical condition, a behavioral problem, or a mental disorder.

Colic

Colic is the most common problem related to feeding in early infancy. It is characterized by inconsolable crying for more than 3 hours a day after a feeding, for more than 3 days a week, and for longer than 3 weeks. It is accompanied by pain grimaces, abdominal distension, and leg extension (Wessel, Cobb, Jackson, Harris, & Detwiler, 1954). It affects approximately 10–40% of infants worldwide, begins during the second week of life, and peaks around age 6 weeks, with symptoms resolving by age 3–6 months (Lucassen et al., 2001). The cause of colic is not known, with proposed causes including intolerance to cow’s milk protein or lactose and gastrointestinal immaturity or inflammation (Johnson, Cocker, & Chang, 2015), and it has been associated with postpartum depression and shaken baby syndrome (Barr, Trent, & Cross, 2006; Radesky et al., 2013). The incidence is similar between sexes, type of feeding (breast vs. bottle), gestational age (full term vs. preterm), socioeconomic status, and the time of year the baby was born (Johnson et al., 2015). About 5% of cases of colic are estimated to have an organic cause (Freedman, Al-Harthy, & Thull-Freedman, 2009). There is no single effective treatment for colic: The first line of treatment is providing the parent with information on the benign and self-limited nature of colic, reassurance, and support. Some breast-fed babies have responded to probiotic *Lactobacillus reuteri* (strain DSM 17938), but it can increase crying in bottle-fed babies (Sung et al., 2013). A low allergen maternal diet (no cow’s milk, eggs, peanuts, tree nuts, wheat, soy, and fish) has also been found to decrease colic in some breast-fed babies (Hill et al., 2005). A review of 13 studies found that formula-fed infants had a significant decrease in crying when they were switched to partially, extensively, or completely hydrolyzed formulas (Iacovou, Ralston, Muir, Walker, & Truby, 2012). Treatments such as chiropractic and osteopathic manipulation, massage, acupuncture, herbal supplements, sucrose, and “gripe water” (dill seed oil, bicarbonate, and hydrogenated glucose) have been tried with inconsistent or potentially harmful results (Johnson et al., 2015). There are no apparent long-term negative effects of colic, although some mothers report feeling less competent as mothers due to this issue (Stifter & Bono, 1998).

Pica

DSM-5 defines the essential feature of pica as persistent eating of nonnutritive substances, which may be nonfood items or raw food ingredients, in large amounts for a period of at least 1 month that are severe enough to get clinical attention (APA, 2013). Substances ingested tend to vary with age and availability (e.g., clay, dirt, stones, hair, wool, strings, chalk, paint, metal, gum, talcum powder, starch, flour, ice). It is not usually diagnosed before a minimal age of 2 years or if the eating is an aspect of a socially normative or culturally supported practice such as eating dirt in some African communities (APA, 2013). Pica is differentiated from *mouthing* in that it involves actual eating of nonfood substances, rather than just tasting or chewing on objects that can result in some ingestion. Mouthing of nonfood substances is developmentally appropriate in infants at about 6–9 months of age and is a primary way of exploring the world. Pica is highly associated with intellectual disability and autism spectrum disorder, but it also occurs in typically developing children and adults (APA, 2013; Williams, Kirkpatrick-Sanchez, Enzinna, Dunn, & Borden-Karasack, 2009). Children with sickle-cell disease (SCD) are at high risk for pica, with an estimated 34% of children with SCD exhibiting pica; the greater the severity of SCD, the higher the prevalence rate (Ivascu et al., 2001; Lemanek et al., 2002). Pica can lead to severe medical complications such as poisoning and intestinal obstruction or perforations. Although prevalence studies are limited and some report that pica is rare over the age of 2 years in the United States (Marchi & Cohen, 1990), others cite prevalence estimates ranging from 27 to 50% of black children and from 17 to 30% of white children (Lacey, 1993). Pica is more common in developing versus developed countries, among the poor versus the affluent, among children versus adults, and among those with severe versus mild intellectual disability (Wren & Tarbell, 1998).

The etiology of pica is not well understood, but it is associated with an impoverished environment, lack of supervision, neglect, parent psychopathology, and family disorganization. Other possible factors that have been suggested include deficiencies in iron, calcium and zinc, but no specific biological abnormalities have been found and it does not appear to be caused by poor nutrition (APA, 2013; Lyons-Ruth, Zeanah, Benoit, Madigan, & Mills-Koonce, 2014). Intervention for children with pica typically involves parental education regarding the hazards of eating nonfood substances, increased social and environmental stimulation, closer supervision, and behavior therapy for persistent cases. The latter involves differential reinforcement (e.g., food treats) for incompatible behaviors (e.g., playing with toys), as well as overcorrection (e.g., brushing the tongue and teeth with mouthwash contingent on eating nonfood substances) (Benoit, 2009; Lyman & Himbree-Kigin, 1994).

Rumination

Rumination involves repeated regurgitation of food that is rechewed then reswallowed or spit out, and persists for at least 1 month and is not associated with a medical problem (e.g., gastroesophageal reflux, hiatal hernia), unless the severity exceeds that routinely associated with the medical condition (APA, 2013). Rumination is driven by a rise in intra-abdominal and intragastric pressure secondary to abdominal wall contraction, concurrent with a relaxation of the lower esophageal sphincter pressure. It can occur during or after a meal, be episodic or persistent, typically occurring daily. Rumination occurs occasionally in almost all infants, usually between ages 3 and 12 months, and usually disappears spontaneously. The prevalence of rumination disorder in the general population is not known, due in part to variability in diagnostic terminology, and regurgitation and rumination in older children and adults often occurs in secret (Hartmann, Becker, Hampton, & Bryant-Waugh, 2012). It can occur in cognitively normal children and adolescents (Chial, Camilleri, Williams, Litzinger, & Perrault, 2003), but is most common among children and adults with intellectual disabilities (6–10% of the institutionalized population; Wren & Tarbell, 1998). Although the etiology is unknown, it is hypothesized that predisposing factors for infants/young children and for individuals with developmental disabilities are lack of stimulation, anxious and/or depressed caregivers, and/or very stressful environments (Budd & Chugh, 1998). Linscheid and Rasnake (2001) suggest that rumination is a form of oral self-stimulation or self-soothing that can rapidly become habitual. Others have suggested that an uncomfortable pressure in the stomach resulting in regurgitation and expelling of the food can immediately decrease the discomfort and may therefore have a reinforcing quality (Schroedl, Alioto, & Di Lorenzo, 2013). It is not a benign problem and can result in significant malnutrition, dehydration, dental problems, and even death (Bryant-Waugh & Watkins, 2015). A review of cognitively normal adolescents and children who received a diagnosis of rumination reported that the diagnosis is often delayed, resulting in significant morbidity, with 72% of youth missing school secondary due to rumination and 46% hospitalized for treatment or complications associated with rumination (Chial et al., 2003).

Given the multiple causes of rumination and its subsequent medical risks, the assessment and treatment of rumination involves an interdisciplinary approach that rules out medical conditions contributing to the problem, as well as stabilizing the health of the individual. There is no single medical intervention that is effective in treating rumination, and behavioral techniques are the usual treatment of choice. For infants and children, the assessment of a rumination disorder requires observation of rumination episodes to determine the setting conditions and consequences for the behavior, as well as the parent–child interaction. Although there have been no clinical trials of treatment for rumination, case studies indicate that a variety of behavioral interventions have been effective. For example, with infants, increased environmental stimulation and parent training in the use of time out and differential reinforcement of nonruminative behavior is effective in stopping rumination (Lavigne, Burns, & Cotter, 1981). For older children and adolescents, habit reversal (diaphragmatic breathing as the competing response to rumination) has been effective (Chitkara, Van Tilburg, Whitehead, & Talley, 2006) as well as cognitive behavior therapy and biofeedback (Schroedl et al., 2013). For children with intellectual disabilities, treatment has involved ensuring a stimulating environment and differential reinforcement of nonruminative behavior and, in some cases, the use of an aversive stimulus contingent on ruminating, such as a squirt of lemon juice or pepper sauce, or for severe cases, a mild electric shock (e.g., Glasscock, Friman, O'Brien, & Christophersen, 1986; Linscheid & Cunningham, 1977), although the ethics of this approach have been questioned (Wren & Tarbell, 1998). Other effective treatments have included providing starchy food (white bread) following meals (Thibadeau, Blew, Reedy, & Liuiselli, 1999); oral hygiene (Singh, Manning, & Angell, 1982); and food satiation (Clauser & Scibak, 1990).

Avoidant/Restrictive Food Intake Disorder

In DSM-5, avoidant/restrictive food intake disorder (ARFID; APA, 2013) replaces and expands on the DSM-IV diagnosis of *other feeding and eating disorders of infancy and young childhood* (APA, 1994). ARFID is characterized by the avoidance or restriction of food intake, which results in a persistent failure to meet appropriate nutritional and/or energy needs (APA, 2013). This behavior is associated with one or more of the following: (1) significant weight loss (or failure to achieve expected weight gain or faltering growth); (2) significant nutritional deficiency; (3) dependence on oral nutritional supplements or enteral feeding; and/or (4) a significant impact on psychosocial functioning. ARFID differs from anorexia nervosa in that there is no concern about weight or shape, or avoidance of weight gain. ARFID is not diagnosed if it is due to a medical condition unless the feeding/eating problem exceeds what would be expected from the medical condition. In a departure from DSM-IV, DSM-5 does not give specific criteria for significant nutritional deficiency, weight loss, or growth trajectory, but rather leaves this to clinical judgment. This allows for greater flexibility in identifying children who may be at significant risk but do not meet rigid weight criteria.

DSM-5 describes three types of ARFID: (1) limited food intake associated with sensory sensitivities including textures, colors, tastes, smells, or temperature (often described as sensory food aversions, selective eating or restrictive eating); (2) the association of feeding with an aversive experience (choking, vomiting, or a traumatic medical procedure, usually involving the gastrointestonal tract); and (3) limited food intake due to a generalized emotional disturbance (APA, 2013). The criteria for ARFID also provide an umbrella for a broad range of eating and feeding problems previously described in the literature, including food refusal, failure to thrive, infantile anorexia, psychosocial short stature, food phobia, selective eating, picky eating, and functional dysphagia (von Ranson & Wallace, 2014). Thus, the difficulties in terms of the nature and severity of problems range from mild problems that do not involve considerable health risks to significant feeding problems, which can develop into behavioral resistance to solid food or all food, resulting in malnutrition and the need for supplemental tube feeding (Bryant-Waugh & Watkins, 2015). Children with ARFID are typically underweight but may be normal weight, and a few may be overweight and still have significant nutritional issues (Bryant-Waugh & Watkins, 2015).

The ARFID criteria are relevant to infants, children, and adults, and are scheduled for inclusion in ICD-11 (Uher & Rutter, 2012). In addition, although DC:0–3R (Zero to Three, 2005) is limited to very young children, some of its subcategories are similar to behaviors described in older children, such as food avoidance emotional disorder, selective eating, food phobias, and functional dysphagia or difficulty swallowing (Nicholls & Bryant-Waugh, 2009). Altogether, this new ARFID category allows for developmental differences in the expression of feeding and eating disorders, and provides criteria that are clinically relevant (Bryant-Waugh & Watkins, 2015).

In a study of the prevalence of eating problems in 1,090 children ranging in age from 4 to 7 years, Equit et al. (2013) found that 53% avoided certain foods, 26% were unwilling to try new foods, and 26% ate a narrow range of foods. This suggests that "picky" eating is normative in children without weight loss, behavioral, or emotional issues (Bryant-Waugh & Watkins, 2015). In order to help distinguish problem behaviors, Crist and Napier-Phillips (2001) compared the behavior around feeding and mealtimes of 96 healthy children (ages 9 months–7 years) to the behavior of two clinical groups: (1) children referred for feeding problems without related medical issues and (2) children with medical issues associated with feeding problems. They found similar behaviors across the three groups, including picky eating, stalling, and preferring to drink rather than eat. Younger children engaged in whining or crying, tantrums, spitting out food, letting food sit in their mouths without swallowing, and choking or gagging, whereas older children delayed eating by talking, trying to negotiate what to eat, getting up from the table, and refusing to eat much during the meal but requesting junky snack food or milk immediately after the meal. The difference between the three groups was that the two clinical groups had significantly higher frequencies of these behaviors as compared to the normative group (Crist & Napier-Phillips, 2001). In addition, longer meals (more than 30 minutes), parental coaxing, and parents making multiple meals were significantly correlated with increased food restrictiveness. These results are similar to previous studies (Reau, Senturia, Lebailly, & Christoffel, 1996; Stark et al., 1996).

Given that ARFID is a new diagnosis, there are currently no available prevalence studies. The previous *failure to thrive* (FTT) diagnosis (i.e., weight for age that falls below the 5th percentile) can provide an estimate for severe cases. Estimates of FTT in children seen in the primary care setting are 5–10%, and in hospital settings 3–5% (Daniel, Kleis, & Cemeroglu, 2008). For FTT, the onset is typically in infancy, although older preschoolers may be seen with these characteristics. Children who have significant feeding disorders present with a wide variety of medical conditions, psychological and developmental deficits, and social and environmental problems. These factors may include anatomical or sensory–perceptual abnormalities, oral–motor problems, temperamental characteristics, traumatic experiences, mealtime behaviors, caregiver–infant relationships, caregiver characteristics, and family factors (Benoit, 2009; Cooper, Whelan, Woolgar, Morrell, & Murray, 2004). Drotar (1995) notes that it is not always easy to differentiate the cause of the disorder from the effects of malnutrition. Moreover, in cases in which the child has no clear medical condition and the parent–child interaction is problematic, the direction of the causality is not always clear; that is, a parent’s dysfunctional behavior may result from having a child who will not eat sufficient food to maintain adequate growth and development. For example, Sanders, Patel, LeGrice, and Shepherd (1993) documented a coercive cycle among families with children who had significant food refusal behaviors: a typical sequence of parents’ coaxing and pressuring their children to eat, which is reinforced by the child’s intermittent consumption of some foods.

Research has documented that children with food refusal problems have an assortment of externalizing and internalizing behavior problems, most notably, anxiety disorder, obsessive–compulsive disorder, autism spectrum disorder, attention-deficit/hyperactivity disorder, and intellectual disability (APA, 2013). Children with a history of early eating disturbance have more severe behavior problems than those whose eating difficulty has a later onset (Sanders et al., 1993). The association between early food refusal problems and later eating disorders, such as anorexia nervosa or bulimia nervosa, is not clear, although some older children are reported to present with subclinical variations of full-blown eating disorders prior to adolescence (Bryant-Waugh & Watkins, 2015).

Most children with food refusal problems eat enough to ensure adequate growth, and their problems typically resolve without treatment. Parental education and guidance in using behavioral principles may be all that is necessary. Some children, however, do not receive adequate nutrition and in some cases, physical, social, and/or emotional development is compromised. For these children, a comprehensive assessment is necessary to plan an appropriate treatment program.

ASSESSMENT OF FOOD REFUSAL PROBLEMS

Assessment of children who refuse most food or exhibit picky eating is complex. Some of these children—specifically, those who have medical complications or whose growth is compromised—should be assessed in an inpatient facility in which there is easy access to medical and nutritional expertise. For most children with feeding problems, however, growth and development continue on a typical course despite poor feeding habits and behavior. These children represent the bulk of those seen in an outpatient clinic, and the clinician needs to rely on parents for information and implementation of treatment recommendations. The assessment process described here follows the steps for gathering information in accordance with the Comprehensive Assessment-to-Intervention System (CAIS; see Chapter 2); the emphasis here is on those factors that are particularly important in assessing and treating food refusal problems (see Table 3.2).

TABLE 3.2. Factors Implicated in the Etiology of Feeding Problems

Area of risk	Risk factors
Characteristics of the parent (usually the mother)	• Disturbed interaction with the infant • Poor problem solving abilities • Lack of nutritional knowledge • Improper feeding techniques • Poor monitoring • History of eating disorder • Depression, substance abuse, or other psychopathology • Excessive stress • Neglect; maltreatment
Characteristics of the child	• Prematurity • Developmental status (delays, disabilities) • Physical illness • Fussy/difficult temperament • Childhood depression; oppositional behavior • Oral–motor problems • Sensory-perceptual abnormalities • Early trauma: medical loss, maltreatment
Characteristics of the environment	• Low financial resources, which may limit adequate available food • Lack of stimulation • Impoverished environment • Cultural, ethnic, and beliefs about feeding, weaning, weight, and a “healthy” diet • Family disorganization • Irregular mealtimes • Mealtime struggles • Family conflict at meals • Isolation and lack of support

Data from Bryant-Waugh and Watkins (2015) and Drotar (1995).

Step 1: Initial Contact

The first step in assessment of a food refusal problem is to make sure the child has had a complete medical checkup and nutritional assessment. These two referrals are further discussed below (see "Step 5: Collaboration with Other Health Care Professionals"). Parents should be asked to complete a general questionnaire (e.g., our General Parent Questionnaire; see Appendix B) with demographic information, as well as brief medical and developmental histories. Information about the parents' perceptions of the problem and what they have been told and/or done thus far is also obtained from this questionnaire. For a child over age 2 years, the Child Behavior Checklist (CBCL; Achenbach, 2013; Achenbach & Rescorla, 2001a, 2001b) or the Behavior Assessment System for Children, Third Edition (BASC-3; Reynolds & Kamphaus, 2015) screen for general behavioral or emotional problems; the Eyberg Behavior Inventory (ECBI; Eyberg & Pincus, 1999) determines the extent of problems in daily activities, as well as difficulties that occur around feeding; and the Parenting Stress Index, Fourth Edition (PSI-4; Abidin, 2012) gives information on the child's temperament, the parents' general levels of stress, and the quality of the marital/couple relationship. The Children's Eating Behavior Inventory (CEBI; Archer, Rosenbaum, & Streiner, 1991) assesses specific eating behaviors (see Appendix A). In addition, parents should be asked to complete a Food Diary (see Figure 3.1) for 3–7 days before the initial visit, to gather specific information on the child's eating patterns and the parents' responses to them.

Food Diary

Child's Name: ________ Age: ________

Date	Time	Type of Food	Amount	Where Eaten/Behavior
			Sample	

FIGURE 3.1. A chart for recording daily food intake and behavior.

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Step 2: Initial Intake Interview

Parent Interview

It is important that both parents attend the initial interview. Each parent is likely to manage feeding difficulties differently, and the clinician should be aware of their differing styles/perceptions. We usually include the child in this interview, in order to observe the parent–child interactions. Some parents, however, are hesitant to discuss feeding issues with the child present; a session without the child should be scheduled for these parents, and arrangements made to observe the child–parent interactions at another time.

The focus of the parent interview should be on the child's general development and behavior; a history of the food refusal problem, as well as its current status; the environmental/social context of the problem; and the parents' level of stress related to the problem. Specific areas to cover include the following:

1. *Development*. What was the child's birth history? Was the child premature (or were there perinatal problems)? Were developmental milestones achieved on time?

2. *Behavior*. The screening instruments will give information in this area, and the interview should follow up on any concerns, especially noncompliance and oppositional behavior. Many children referred for food refusal problems also have problems with general noncompliance or oppositional behavior, toileting, and/or sleep problems (Budd & Chugh, 1998). The clinician must determine whether these other behavior problems should be treated first, or whether treatment of the food refusal problem will aid in the resolution of the other problems. It should be remembered that poor nutrition can affect a child's behavior, resulting in increased irritability, for example. Given the distress that most parents experience related to feeding problems, and the parents' desire to get help with feeding, it is usually best to focus initially on the food refusal problem, unless the child is generally noncompliant. How the parents have handled behavior problems in general provides helpful information on how to structure the feeding intervention.

3. *Medical history*. What illnesses has the child had (e.g., chronic ear infections, asthma, seizures, the flu, chronic illness)? The child's medical history can give clues as to past conditions that, though no longer active, may have influenced the development of poor eating habits.

4. *Feeding history*. A careful history of the child's feeding behavior should be obtained. Was the child fed from breast or bottle? Did the child have colic? When was he or she weaned? When were solids introduced? How did that go? Information about the onset of the food refusal problem helps differentiate between developmental and pathological problems and gives potential information on any associated events. Has the child had an aversive experience with food? Have there been changes in the child's daily routine (e.g., starting preschool or a new school, birth of a sibling)? Have there been changes in the family routines (e.g., an illness or hospitalization, unusual absences of a parent)?

5. *Current feeding status*. The Food Diary (Figure 3.1) provides a good starting point for gathering information about a specific problem. Parents should be asked specifically about the child's likes and dislikes, as this information may not be evident from the Food Diary. Other areas to assess include (a) the frequency of occurrence (has the problem increased or decreased over time?); (b) fluctuations in occurrence (is there a problem at every meal, or does it depend on such factors as who feeds the child?); (c) the place of occurrence (does the child have the problem at home, at school, or both?); and (d) the nature of the problem (types, textures, variety of foods, and liquids consumed).

6. *Daily routines*. Are meals served at regular intervals? What types and quantities of snacks does the child get and when? To what extent does the child have access to food (including fluids) outside regularly scheduled meals and snacks? Who usually feeds the child? Of what do typical meals consist? Does the child's schedule include regular exercise? Does the child have a regular sleep schedule?

7. *Family feeding history*. Do other members of the family have eating problems? Children whose mothers have a history of eating disorders are at higher risk for food refusal problems than those whose mothers have no such history (Micali et al., 2011; Patel, Wheatcroft, Park, & Stein, 2002).

8. *Parents' response to the problem*. How do parents handle the problem? What advice have they been given? What have they tried, and for how long? What have they told the child? How is the problem affecting other family members?

9. *Parental/social/environmental issues*. The General Parent Questionnaire and the PSI-4 should alert the clinician to potential contributing problems in these areas. For example, maternal depression, marital/couple conflict, birth of a sibling, and/or a hospitalization can exacerbate a feeding problem. Information about the parents' mental and physical health status, support networks, the family's daily routine, the home environment, and cultural or ethnic views about food and eating can shed light on what may be maintaining the problem. Other questions include the following: What are the parents' financial resources? Do they provide sufficient food? What are their attitudes toward "healthy diets"? What are their expectations for table manners? Can they tolerate some messiness as the child learns to self-feed?

Child Interview

Depending on the type of food refusal problem, the age of the child, and the presence of other problems, a separate interview with the child may be warranted. Generally, it is not helpful to interview preschool children alone. School-age children with food refusal problems, however, can be seen separately from their parents. The focus should be on their general adjustment to friends, school, and family, as well as their perception of the eating problem (including a description of the problem, its frequency, how their parents have viewed and handled the problem, how the child views the problem, and what he or she has done to resolve the problem). Attitudes and beliefs about eating should also be assessed.

Step 3: Observation of Behavior

Observation of parent–child interaction during feeding situations is the hallmark of assessment for food refusal problems (Linscheid, 2006). It is very difficult to plan an appropriate intervention program without first completing this observation. A functional analysis of the behavior and its antecedents and consequences guides the treatment process. It can occur in the clinic or at the home, and/or the parents may be asked to videotape a feeding session at home. If the clinician cannot make a home visit, the latter method provides useful information about the setting conditions for food refusal problems. The focus of observation should be on behaviors that interfere with eating (e.g., tantrums, crying, leaving the table, vomiting), parental behaviors that may reinforce inappropriate eating behavior, and the child's self-feeding skills.

Observational assessment of the child's food preferences is also important. Linscheid and Rasnake (2001) note that parents often do not really know what these are (although they think they do), and information obtained through food records may not be reliable, as parents may present the child with only those foods they think he or she prefers. They suggest that the clinician present a variety of foods to the child and allow the child to eat whatever he or she likes. The child's response to each food is then recorded. The child often eats foods that the parents report as disliked (Linscheid & Rasnake, 2001).

If the problem involves the child's ability to self-feed, observation of this process should be included. The focus of this observation is on the behaviors that must be learned for self-feeding to occur.

Step 4: Further Assessment

Further assessment is indicated if the child or family presents with problems beyond those associated with the food refusal problem. For example, if the child is having trouble in school or has other emotional or behavioral problems, it is important to evaluate these areas further. If there are marital/couple problems, or if there is evidence of parental psychopathology, these should be evaluated or referred for evaluation.

Step 5: Collaboration with Other Health Care Professionals

Medical conditions that can affect diet or reduce weight gain, such as food allergies, thyroid or endocrine problems, or congenital abnormalities of the gastrointestinal system, must be ruled out before treatment begins (Linscheid & Rasnake, 2001). Problems with the central nervous system that might result in oral–motor or fine motor delays should also be assessed. If any of these are present, or if the child is losing weight or not growing as expected, ongoing monitoring with a physician is necessary. In these cases, inpatient treatment should be seriously considered. A consultation with a nutritionist should also be obtained. This is particularly necessary if the parents lack knowledge about appropriate nutrition for children or have unusual attitudes or beliefs about food (e.g., low-fat or vegetarian diets, excessive fears of obesity). Referral to an occupational therapist is called for in cases in which the child has not developed the expected oral–motor or fine motor skills to support self-feeding.

Step 6: Communication of Findings and Treatment Recommendations

The nature of the food refusal problem, the clinician's view of the problem, and potential treatment strategies should be shared with the parents. The clinician should also discuss the implications of the problem for the child's development in other areas (e.g., independence, mastery, growth, and general health). In the treatment of food refusal problems, the clinician is primarily a consultant to the family members, who must carry out the actual intervention program. The parents' clear understanding of the nature of the problem and the rationale for the treatment plan is essential to gaining their trust and cooperation.

TREATMENT OF FOOD REFUSAL PROBLEMS

Treatment of children's food refusal problems varies according to the nature of the problem. It is important to note, however, that factors related to the parents can influence the course of treatment. In many cases, it is clear that parents who seek help with their child's eating disturbances have emotional or marital/couple problems that contribute significantly to their child's problems. In these cases, treatment for the food refusal problem is not likely to be effective. It is best to support parents in getting help for themselves before or concurrent to addressing the child's problem.

The first step in treatment for food refusal problems is to decide whether treatment should occur in an inpatient or outpatient setting. Linscheid and Rasnake (2001) recommend inpatient or day treatment with available medical monitoring if (1) the child's medical/health status is poor; (2) outpatient treatment has been attempted and has failed; (3) the parent–child relationship is so impaired or the parents' problems are so severe that home-based treatment is likely to fail; or (4) the intervention program will require medical monitoring. Outpatient treatment is appropriate when the child's medical status is stable and the parents are supportive of the intervention plan. It is also effective when it involves a good working relationship with a medical professional and the clinician has knowledge of effective behavior techniques. Unfortunately, there are few empirically supported outpatient treatment studies for feeding problems (Lukens & Silverman, 2014).

The second step in treatment is to specify goals in clear behavioral and nutritional terms. Next, a system for measuring progress (e.g., bites eaten, variety of foods eaten, calories consumed, daily weights) must be determined. Often this results from the baseline assessment of the child's feeding behavior. Finally, the specific treatment goals, the behavioral strategies that will be used and the rationale for using them, and the role the parents will play in the treatment should be shared with parents (Linscheid, 2006).

The feeding situation lends itself easily to direct intervention using behavioral techniques, and there are reports of successful treatment using these strategies (e.g., Kerwin, 1999; Lukens & Silverman, 2014). No two cases involving feeding and eating problems are exactly alike, and it is important to adapt treatments to specific problems and change procedures based on the child's response (Linscheid, 2006). Two reviews of treatment programs for food refusal problems found that interventions that include appetite manipulation and contingency management are most effective (Kerwin, 1999; Lukens & Silverman, 2014). Appetite manipulation involves increasing the motivation to eat by decreasing the calories (e.g., decreasing milk or juice intake, or all snacking). How to make a child hungry yet keep him or her safe is a major consideration in treatment planning. Reports using this technique are primarily done in inpatient settings with the use of G-tube feeding (e.g., Linscheid, 2006; Silverman et al., 2013), but there are clinical reports of successfully using this method in outpatient settings (Davies et al., 2006; Murphy & Zlomke, 2016). Linscheid (2006) states that the differential reinforcement of intake and compliance behaviors is an important component of feeding treatments but, ultimately, what maintains the feeding behaviors is the natural consequences of eating: satiation of hunger and the taste of food. Contingency management methods include positive reinforcement of appropriate feeding responses, ignoring or guiding inappropriate responses, positive reinforcement for acceptance of food, not removing the spoon if the child refuses food, and teaching the child to swallow. Linscheid argues that the clinician must be well trained in behavioral principles, in order to design an intervention program that is flexible enough to meet the specific needs of individual children and their families.

Specific behavioral techniques are discussed in the context of the CAIS (see Chapter 2), with emphasis on five areas: child, parents, environment, consequences of behavior, and medical/health interventions.

Intervention with the Child

Direct intervention with the child is not usually a part of treating common food refusal problems unless the child has significant physical or developmental disabilities or is seriously medically compromised. In these cases, the clinician may have to teach the child appropriate responses and model techniques for the parents before they are able to carry out the program.

The clinician may also work directly with a child who exhibits symptoms of food phobia (fear and anxiety responses to food). In this case, development of fear hierarchies and systematic desensitization are likely to be components of the treatment (see Chapter 7 for a description of these methods).

Intervention with the Parents

If the assessment indicates that the child has significant noncompliance or oppositional behaviors outside the eating situation, a course of behavioral parent training may be necessary before the food refusal problem is treated. Indeed, the food refusal problem may remit to some extent once the parents have achieved general control over their child's behavior (see Chapter 10 for a description of parent training).

Intervention in the Environment

The clinician should help the parents alter the feeding routine so that it facilitates the child's desire to eat. Someone should eat with the child, and the atmosphere should be pleasant, without cajoling or nagging about eating. The child should be expected to eat at specified times every day, to eat in the dining room or kitchen, and stay seated for a snack or a meal for a set period of time (no more than 30 minutes). New foods should be introduced and presented on a regular basis (10 or more times) even if the child initially refuses them. Drinks such as milk or juice should usually be limited and presented only at the end of the meal.

Changing the Consequences of the Behavior

Careful observational assessment of the child and parent should provide the clinician with information about where to focus treatment strategies. Various behavioral strategies have been used, and these are discussed below.

Appetite Manipulation

A very important component of any treatment program is to ensure that the child arrives hungry for the feeding sessions. Parents should be instructed to limit the child's access to food between sessions. Preferably, between-meal snacks should be eliminated, and the child should be given only water, although some parents are not comfortable with this approach. If the child is to be given snacks, they should be presented at a consistent time and should be limited in quantity. The clinician can work with the parents to arrive at a reasonable compromise. The degree to which hunger can be induced predicts the speed and degree of success. Collaboration with the physician is important to assess the child's medical condition and current weight to determine the extent to which access to food is restricted (Linscheid, 2006).

Differential Attention

Differential attention involves presenting the child with a desired stimulus or positive reinforcer contingent on the occurrence of the appropriate specified feeding behavior (e.g., consumption of a previously refused food), while at the same time ignoring or turning away from inappropriate responses (e.g., food refusal). For instance, the parent should be instructed to present the child with a small amount of a previously refused food and to praise the child if it is accepted. If the child refuses the food, the parent should say nothing, but turn his or her head away from the child for a few seconds. The parent should then re-present the food and follow the same procedure for a specified number of times. An average of 10 presentations is necessary for children without significant problems to accept previously refused food (Budd & Chugh, 1998). It is likely, however, that parents of children with food refusal problems will need to present nonpreferred food repeatedly over several feeding sessions before it will be accepted. Removal of the refused food basically functions as negative reinforcement for the child. In other words, when the parent removes the aversive food, the probability that the child will refuse that food the next time it is presented is increased. Moreover, many parents habitually remove the refused food and substitute a preferred food, which acts as a "double whammy" of both positive and negative reinforcement.

Ignoring or extinction of inappropriate behavior is effective when used with positive reinforcement for alternative behaviors, but many parents do not like this method because of the "extinction burst" (i.e., an increase in inappropriate behavior) that typically occurs when the parent begins to ignore the behavior. In some instances, however, parents can be persuaded to ignore low-level inappropriate behaviors such as dawdling if it is clear that the child is doing it to gain parental attention.

In addition to praise, various reinforcers have been used to motivate children to eat appropriately. These include (1) presenting preferred foods contingent on eating nonpreferred foods; (2) providing pleasurable events, such as short bursts of watching television; (3) giving a desired toy for a short period of time; and (4) for older children, awarding points that can be traded for special activities.

Time Out

A detailed description of the use of time out is included in Chapter 10. In the feeding situation, time out should be used as a consequence for temper tantrums or other disruptive behaviors that interfere with eating. It is important to note, however, that for time out to be effective in this situation, the child must be hungry.

Intervention in Medical/Health Aspects

When feeding intervention is required for a child who is receiving all or most of his or her nutrition through a G-tube, and the eventual goal is to eliminate the tube, coordination of the treatment program with medical personnel is required. Behavioral techniques, as described earlier, are used in these cases, but the treatment design and implementation will be different than those for children without medical needs. The reader is referred to Linscheid (2006) for a description of such a program. Finally, the assessment data may indicate that changes in the child's nutritional intake may be necessary. This intervention should be coordinated with a nutritional specialist.

CASE EXAMPLE: FOOD REFUSAL PROBLEM

Step 1: Initial Contact

A pediatrician referred 22-month-old Maggie, who was eating small amounts and a limited variety of food, and in the 3rd percentile for weight and the 5th percentile for height. A complete physical workup at a local hospital indicated she was healthy, and the family was referred to a psychologist to deal with parent–child power struggles. The Percys, Maggie's parents, were unhappy with the psychological consultation and were seeking a second opinion. Maggie's pediatrician saw her once a month for weight checks. Mrs. Percy said that Maggie ate better with her babysitter than with her mother, father, or grandparents, but it still took her 45–60 minutes to complete a very small meal. Mrs. Percy was 5 months' pregnant and concerned about dealing with both Maggie's poor eating and a new baby.

Prior to the initial interview, the parents completed the General Parent Questionnaire and a 1-week Food Diary, and each parent completed an ECBI and PSI. On the General Parent Questionnaire, they reported that they were in their late 20s and a middle-class family (the father was a computer programmer and the mother, a dental hygienist). Mrs. Percy worked full-time, involving a 45-minute drive from home. Maggie, their only child, was described as having a high activity level, as one who enjoyed playing with other children, reading stories, coloring, and other activities. They also stated that she liked to engage in power struggles and was extremely distracted during meals. They felt that her eating problems resulted from never having made the transition from the bottle to solid foods. Although she was weaned from the bottle at 1 year of age, she had only recently begun to eat solid foods. Furthermore, she never showed an interest in foods, except for her formula or milk. Other concerns were her painful bowel movements, resisting the toilet, and trouble transitioning from one activity to another.

The parents' responses to the rating scales were similar in most areas. On the ECBI, they reported that Maggie engaged in more noncompliant and disruptive behaviors than most children her age; however, the parents did not rate these behaviors as problematic. On the PSI Child Domain, Maggie was described as very moody, as becoming very upset with changes in her routine and having trouble calming down. The parents found these behaviors to be stressful and indicated that Maggie was not very reinforcing to them. Parent Domain scores were within the average range on all scales.

Both the parents and babysitter's 1-week food diary were extraordinarily detailed. There were no set times for meals (lasting on average 60 minutes) or snacks, and foods consumed consisted of small amounts of applesauce, peanut butter, pudding, yogurt, canned fruit, juice, and 24 ounces of chocolate milk a day. Only occasional foods requiring chewing, such as hot dogs, grapes, or French toast, were noted. Chocolate milk was Maggie's primary source of nutrition.

Step 2: Initial Intake Interview

The parents brought Maggie's supper for a 6:00 P.M. appointment. A high chair was provided, but the parents said they did not use one at home; rather, they allowed Maggie to get up and down from the table as she desired. Although Maggie said that she was not hungry, the parents put some cheese and pudding on a child-size table for her.

The parents were pleasant and quick to say that they had very few concerns except Maggie's refusal to eat. They reported trying behavior management techniques but did not feel they worked with Maggie. It was easier to give in to demands for milk than insist she eat the food given to her at the table. They had seen another psychologist for four sessions but felt they had tried all the suggested techniques (limiting milk, putting her in time out, and setting a regular schedule) with limited or no success.

A review of Maggie's developmental history indicated no pre- or perinatal complications. She was a full-term baby (weight 7 pounds, 5 ounces, length 19½ inches). Maggie was described as a relatively difficult baby, who was easily upset and difficult to calm. Because of her demanding work schedule, Mrs. Percy had opted to use formula rather than breast milk; she returned to work 6 weeks after the birth. Pureed food and some finger foods were introduced at about 9 months of age, but Maggie had a lack of interest in solid food. Between 12 and 18 months, she lost 4 pounds, prompting the referral for a full medical evaluation.

The daily routine involved waking Maggie at 6:00 A.M., who was usually very sleepy, out of sorts, and wanted to be held. She had 4–8 ounces of chocolate milk before leaving for the sitter's home at 7:00 A.M. Mr. Percy picked Maggie up at 5:00 P.M., and Mrs. Percy returned home between 6:00 and 7:00 P.M. Dinnertime was usually late (7:30–8:00 P.M.), but they tried to eat earlier on weekends. Maggie was described as cranky and demanding in the evening, and she often refused to eat. She did, however, enjoy playing with dolls and reading books with them. Maggie had a bedtime routine and was put to bed at about 8:00 P.M. Although she usually went to sleep easily, she would wake three or four times during the night, demanding milk (which they gave her). On days when she did not have to go to the sitter, she would often sleep until 8:00 or 9:00 A.M.

At the sitter's, Maggie was described as a generally happy child who liked to play with other children but had difficulty making transitions from one activity to another. At lunchtime, the sitter sat with her for 30–60 minutes, encouraging her to eat things such as macaroni and cheese, soup, and crackers. Maggie usually ate an adequate lunch and liked snacks of milk and cookies. She had a 1½-hour nap during the afternoon.

The parents described the weekends as much calmer than during the week, with a better routine for all of them. The maternal grandparents were planning to move to the area shortly before the second baby's birth and care for both children in the home. Mrs. Percy planned to work 3 days/week after the baby was born.

Mr. and Mrs. Percy reported that they agreed on most things, except for Maggie's eating, which caused increasing conflict between them. Mr. Percy wanted to present Maggie with food, and if she did not eat it, to give her nothing until the next meal. Mrs. Percy was extremely concerned about Maggie's small size and felt that they should give her food and drinks whenever she requested them, in addition to encouraging her to eat at mealtimes. Although the pediatrician had reassured Mrs. Percy that Maggie was healthy, she was concerned about Maggie's growth and development.

Step 3: Observation of Behavior

Maggie was a physically small, alert child, who eagerly explored the room, moving quickly from one activity to the next. Her language skills were excellent; she described her activities in complete sentences and asked many questions. Several times during the interview, she asked her parents for milk, which they gave her. Throughout the 1-hour interview, Maggie showed no interest in the food available, but she drank approximately 12 ounces of chocolate milk. Several times Maggie's father encouraged her to have some cheese and crackers, but she refused. Parent–child interaction was pleasant but characterized by frequent commands, low expectations for compliance, and many questions. The parents demonstrated considerable interest in Maggie's activities but did not use contingent reinforcement for appropriate behaviors. They handled Maggie's refusals or upsets by giving in to her demands or dropping their requests.

Step 4: Further Assessment

Arrangements were made to obtain all the records from the previous hospital evaluation, and to contact the Percys' pediatrician and their previous psychologist. Medical records indicated that Maggie had received a diagnosis of ARFID, due to poor parental management of her behavior. Although there was concern about Maggie's weight, she was essentially healthy. The previous psychologist said the family was very resistant to help, responding to every recommendation with "We've done that and it doesn't work." The psychologist felt that they wanted a "quick fix" and did not want to explore any family issues other than Maggie's eating, which he saw as part of a general parent management problem.

Step 5: Collaboration with Other Health Care Professionals

Maggie was being followed closely by her pediatrician and had recently had a thorough physical evaluation. Prior to the beginning of the intervention, the pediatrician was contacted regarding possible treatment strategies. She felt that Maggie did not need more than 16 ounces of milk per day, and that with proper management of mealtime behavior, she would eat a wider variety of foods.

Step 6: Communication of Findings and Treatment Recommendations

Information derived from the questionnaires and rating scales was shared with the parents. Maggie was described as a delightful youngster, who was well advanced for her age in many areas, had a very strong will, and had learned how to get her parents to do what she wanted. The clinician expressed her belief that although transitions were likely to continue being difficult for Maggie, she could be taught to handle them better. Her distractibility and activity level were seen as appropriate for a child of her age, interests, and abilities. The parents were told that Maggie was more demanding and less adaptable than many children her age, and that although these behaviors were not uncommon among 2-year-olds, she needed to learn more appropriate ways of interacting. It was also pointed out that the parents seemed to be more tolerant of these behaviors than other parents, and that this might be inadvertently perpetuating them.

Mr. and Mrs. Percy were told that Maggie's difficult transition from milk to solid foods was problematic and most likely set the stage for the current eating problems. It was explained to them that most children begin to make the transition to solid food between 6 and 9 months of age. The present task was to help Maggie move to more solid foods as the milk intake was gradually decreased. This would involve setting up a regular eating schedule for a specified period of time, as well as slowly introducing foods of differing consistencies. Given Maggie's strong-willed temperament, it was also recommended that the parents learn some techniques to increase her compliance and decrease her disruptive behavior. Mr. and Mrs. Percy seemed relieved that there was an explanation for why their daughter was having so much difficulty eating, and they readily agreed to a short-term behaviorally oriented treatment program.

Course of Treatment

The parents were seen for four sessions over a two-month period of time. Initially, the goal of treatment was to get Maggie on a consistent eating schedule and eating within a reasonable period of time. For the first two weeks, the parents and the babysitter were instructed to give Maggie six regularly scheduled small meals per day (6:30 and 9:30 A.M., 12:30, 3:30, 6:30 P.M., and before bed), lasting no longer than 15 minutes per meal. All food would be removed at the end of each meal. They were to select foods that Maggie liked, and to give milk or juice only at the end of each 15-minute meal. Between these six meals, Maggie was only permitted to have water. She was to sit in a high chair or on a booster seat at the table with no other distractions (e.g., TV, toys), and the parents or babysitter were to sit and eat with her. They were encouraged to comment on and praise her eating, but they were not to cajole or be negative in any way. The parents were instructed to handle demands for food between meals by telling Maggie when the next meal was scheduled and offering her water. Given the parents' concern about Maggie's weight, initially no restriction was put on the amount of chocolate milk or juice Maggie was allowed to have at the end of each meal. The parents kept food records during this time and mailed these to the clinic at the end of the week. After reviewing the data, the clinician called the parents for a brief consultation (primarily to reinforce them for following the recommendations). According to the food records, after 2 weeks of following this schedule, Maggie was eating at regular times in a booster seat and actually asking for specific food items at mealtimes.

At the second session, the parents and the clinician agreed that the goals for the next 2 weeks were 1) to increase Maggie's compliance by teaching the parents to attend, follow, and reinforce Maggie's appropriate behavior and to decrease their commands/demands (see Chapter 10) and 2) to substitute regular milk for chocolate milk and to decrease the amount of milk to a maximum of 16 ounces per day. The parents were to measure out the total amount of milk per day and give an equal amount after each meal. Maggie was permitted to have as much water as she wanted between meals. The parents were also instructed to offer Maggie a greater variety of foods by introducing a new food about every 3 days and to present this food on a regular, continuous basis, even if she initially refused it. For example, baked potatoes were substituted for mashed potatoes, and pancakes for French toast. The parents continued to keep detailed food records. Since they were already using time out, they were asked to keep a record of when and how they used it.

Mr. and Mrs. Percy quickly learned new parent–child interaction behaviors and began enjoying their daughter as her compliance increased. They were surprised at how much happier Maggie seemed and reported that she was better able to make transitions. Food records indicated that she was not only eating more during the mealtime but that she also actually requested seconds and was beginning to experiment with some new foods.

At the third session, it was determined that the goals for the next 2 weeks were to teach the parents how to implement time out consistently, which they had been using inconsistently; to manage temper outbursts and refusals appropriately; and to increase the size of the three main meals, while decreasing the other three meals to snacks of an appropriate size and quality (e.g., fruit vs. cookies). The parents continued to keep food and time-out records.

Maggie began to demand more food between meals, and the parents used time out if she had a temper tantrum when this was refused. Not surprisingly, she quickly began to eat more at each meal. Unfortunately, Maggie became ill with an ear infection midway through this period, and the parents allowed her to have as much milk as she wanted and to eat at random times. When the ear infection resolved, however, it was clear that they were having trouble getting her on a regular eating schedule. At the fourth session, the possibility of other relapses was discussed. The parents were told that the rules (regular meals, no milk between meals) should not be changed, but that their expectations of Maggie could be lowered (not expecting her to eat as much or as varied a diet, allowing her to eat mostly preferred foods). Mr. and Mrs. Percy felt that time out was working effectively; Maggie's temper tantrums and moodiness had decreased. Furthermore, her nighttime wakings had stopped without further intervention, and regular visits to the doctor indicated that she was steadily gaining weight. The parents elected to have no further sessions but said they would call if they needed further assistance. A follow-up phone call after a month indicated that Maggie was continuing to progress in her eating and behavior, despite a family vacation and the impending birth of the new baby. Over the next 6 years, Mrs. Percy periodically called or came in for a session or two regarding issues such as sibling rivalry or Maggie being teased by peers for her small stature.

OBESITY

Obesity[2] in the United States is a serious problem that affects the health and well-being of children of all ages. Data from the 2011–2012 National Health and Nutrition Survey indicate that in the United States, 31.8% of youth and over 33% of adults are either overweight or obese (National Health and Nutrition Examination Survey [NHANES]; Ogden, Carroll, Kit, & Flegal, 2014). Children with a *body mass index* (BMI, defined as weight in kilograms/height in meters squared) above 85% but below 95% compared to others of the same age and sex are considered *overweight*, and *obesity* is defined as a BMI above 95% (Barlow, 2007). Between 2003 and 2004 and 2011 and 2012, the prevalence of obesity among children ages 2–5 years decreased from 13.9 to 8.4%, while the prevalence of obesity among children ages 6–11 years (17%) and adolescents ages 12–19 years (20.5%) remained stable (Ogden et al., 2014). In addition to age differences, obesity also varies with race: Hispanic Asian youth (8.6%), non-Hispanic whites (4.1%), African Americans (20.2%), and Mexican Americans (22.4%). Lower socioeconomic status and a lower educational level of the head of household also significantly increase the chance of obesity in children living in the household (Ogden et al., 2014).

The rates of obesity appear to be flattening but the 2011–2012 survey results still represent a threefold increase in obesity over the last three decades (Jelalian & Hart, 2009). It seems clear from the 2011–2012 NHANES that children are not likely to outgrow their excess weight, and the heaviest children tend to become heavier with age (Jolliffe, 2004). Severe obesity (BMI > the 97th percentile) in children has quadrupled to 11.9% of children ages 1–18 years and is the largest growing subcategory of obesity in children (Ogden, Carroll, Curtin, Lamb, & Flegal, 2010). It is estimated that medical care costs associated with excess weight in children is $14.1 billion a year (Trasande & Samprit, 2009), and it is likely to increase as children with obesity become adults with obesity.

Obesity is the result of a long-term imbalance between the intake of food and the output of energy. This imbalance can be due to a variety of factors, including individual factors such as genetics, extreme (both high and low) birthweight, early and more rapid puberty (both a risk factor and an effect of obesity), gestational diabetes, metabolic rate, appetite, diet and physical activity, as well as environmental factors such as family characteristics, ethnic culture, and the culture at large (Canoy & Bundred, 2011; Jelalian & Hart, 2009). For example, a longitudinal study of Norwegian children ages 4–8 years revealed that children whose eating is especially triggered by the sight and smell of food show prospective increased weight gain and, in addition, excess weight and weight gain also predicted increased responsiveness to food and decreased response to satiety (Steinsbekk & Wichstrøm, 2015). A fat mass and obesity (*FTO*) gene has been associated with increased BMI and obesity in a number of studies (Loos & Bouchard, 2008). This adds support to genetic studies of twins and adopted children in which genes are estimated to contribute 30–70% of the variation in obesity status (Farooqi, 2005).

Although genetic traits may influence the risk of obesity in some children, they cannot fully explain the dramatic increase in obesity over the past three decades, which is more often attributed to environmental changes that promote excessive food intake and discourage physical activity (Canoy & Bundred, 2011). The quantity and quality of children's diets have changed over the past several decades, with larger serving sizes, more meals prepared outside the home (e.g., fast food), increased caloric intake from fats, sugars, salty snacks, desserts, and sweetened drinks, and a decrease in fruits and vegetables (Jahns, Siega-Riz, & Popkin, 2001; Sanchez et al., 2007). The family environment also influences the risk for obesity including lower socioeconomic status, parent education, parental weight, the availability of fruits and vegetables, sedentary versus physical activities, family eating patterns and rules, restriction of food, parenting style, and modeling of parental eating and exercise behaviors (Jelalian & Hart, 2009). For example, the availability of play equipment has been associated with preschoolers' time outside in physical activity (Spurrier, Magarey, Golley, Curnow, & Sawyer, 2008), and increased family mealtimes have been associated with an increase in nutrient-rich foods and a decrease in risk of obesity and other eating problems (Gillman et al., 2000; Hammons & Fiese, 2011). Research indicates that increased sedentary activities, particularly screen time (television, computers, game stations) contribute to childhood obesity (Dubois, Farmer, Girard, & Peterson, 2008). In addition, increased television viewing has been associated with fewer fruits and vegetables consumed, increased consumption of sugar-sweetened beverages, and increased overall caloric intake (Miller, Taveras, Rifas-Shiman, & Gillman, 2008). Physical activity levels have decreased over the years, and it is estimated that only 8–36% of children and adolescents in the United States are meeting the recommended 60 minutes per day of moderate to vigorous physical activity (Canoy & Bundred, 2011; Eaton et al., 2008; Troiano et al., 2008). Parent support for physical activity has been associated with increased physical activity, and authoritarian and permissive parenting has been associated with greater screen time (Langer, Crain, Senso, Levy, & Sherwood, 2014). Weight-related teasing and fear of negative evaluation by peers has been associated with lower physical activity and obesity status (Jensen & Steele, 2009), whereas peer support is associated with higher physical activity levels and healthier food choices (Cutler, Flood, Hannan, & Neumark-Sztainer, 2011).

Concerns about pediatric obesity stem from the resulting serious health and psychosocial risks. The physical consequences of obesity are significant, with a higher prevalence of insulin resistance, elevated blood pressure, and impaired glucose tolerance, which in turn can lead to chronic diseases such as hypertension, diabetes, cardiovascular disease, sleep apnea, and cancer (Canoy & Bundred, 2011; Daniels, 2006). There is also evidence that a diet high in saturated fats and sugar in combination with obesity sets the stage for structural changes in the brain, including thinner orbitofrontal and anterior cingulate cortices, less white matter integrity, and reduced hippocampal volume (Davidson et al., 2013; Rusinek & Convit, 2014). These changes are associated with a range of impairments in executive function, including weaker working memory, attention, mental flexibility, and decision making, leading to poorer academic functioning (Liang, Matheson, Kaye, & Boutelle, 2014). In a study of 128 children ages

7–9 years, children with higher BMIs and fat levels had less inhibitory control than did normal-weight children, which makes it harder to say "no" to unhealthy food and resist immediate gratification (Kamijo et al., 2012).

Children with OV/OB have not been found to have more psychopathology than other children, but they report a poorer health-related quality of life (HRQOL), including poorer physical, social, emotional, and academic functioning (Landolt, Vollrath, Niggli, Gnehm, & Sennhauser, 2006; Lim, Gowey, Silverstein, Dumont-Driscoll, & Janicke, 2016). They are at increased risk for low self-esteem, body dissatisfaction, teasing by peers, depressive symptoms, and disordered eating (e.g., binge eating, extreme weight control behaviors) (Goldschmidt, Wall, Loth, Neumark-Sztainer, 2015; Jensen & Steele, 2009, 2012; Puhl, Peterson, & Luedicke, 2013). Children who are obese are stigmatized by peers as early as the preschool years (Cramer & Steinwert, 1998), and weight-based teasing and parental criticism of weight predicted lower self-concept in a sample of overweight children (Davison & Birch, 2002). Field et al. (1999) surveyed 16,114 children ages 9–14 and found that more boys than girls were overweight (26 vs. 19%), but that girls were more likely than boys to perceive themselves as being overweight. Both the proportion of girls who reported trying to lose weight and the incidence of binge eating among girls increased with age. Use of laxatives and purging to control weight was greater for girls ages 13–14 years than for younger girls. Jelalian and Hart (2009) pointed out that it is important to assess the social and emotional functioning of children seeking treatment for OV/OB, as well as assess how weight-related concerns may be affecting children who have behavioral or emotional problems.

ASSESSMENT OF OBESITY

Obesity is the result of multiple factors, and its assessment and subsequent treatment must take into account the child's individual, cultural, and environmental factors contributing to the obesity. The assessment process described here follows the steps for gathering information in accordance with the CAIS (see Chapter 2), with emphasis on factors that are important in assessing and treating obesity.

Step 1: Initial Contact

The first step in assessing obesity is to obtain a complete physical examination to rule out any medical condition that would preclude dietary restriction or increase in activity. Treatment of children under the age of 5 years requires ongoing monitoring by a physician and/or nutritionist to ensure adequate nutrition for growth. Parents should be asked to complete a parent questionnaire (e.g., our own General Parent Questionnaire;

see Appendix B) with demographic information, as well as their view of the child's problem and what they have been told and/or done thus far. The CBCL (Achenbach, 2013; Achenbach & Rescorla, 2001a, 2001b), the BASC-3 (Reynolds & Kamphaus, 2015), and/or the Eyberg Child Behavior Inventory (ECBI; Eyberg & Pincus, 1999) screen for behavior problems that might interfere with treatment. The PSI-4 (Abidin, 2012) helps identify any stresses in the marital relationship or parent problems (e.g., depression) that might make treatment more difficult or lead to premature termination of treatment. The CEBI (Archer et al., 1991) assesses behavior specific to eating problems (see Appendix A).

Step 2: Initial Intake Interview

The parents and child should be seen together at the first session. This allows the clinician to observe parent–child interactions and assess the willingness of each family member to participate in the treatment program. If a parent is also significantly overweight, his or her eating habits and attitudes toward food should be assessed. (The parents' own eating problems may not be completely dealt with in a child-focused treatment approach, and an appropriate referral may be necessary.) Successful treatment of childhood obesity necessitates changes in the parents' eating habits and support for exercise. Parents control what types of food are purchased, how food is prepared, and the types of activities in which children engage; they also function as role models for eating and activity behavior. Consequently, the success of treatment is significantly diminished if the parents are not active participants along with the child. The following areas should be covered:

1. During the initial interview, the clinician should follow up on the information obtained through the screening questionnaires and explore any behavioral or developmental problems reported.

2. The clinician should obtain details about parents' attempts to control their own and/or the child's weight. Often these attempts are made for brief periods of time and in an unsystematic fashion. It is important to give parents information about the usefulness of previously used weight loss strategies, as well as why these strategies might not have been successful.

3. Finding out why parents are seeking help now rather than at some other time provides information about their attitudes toward the problem and potential compliance with treatment. Because parents play such a critical role in the success or failure of a treatment program for childhood obesity, their attitudes, beliefs, and acceptance of the treatment approach must be carefully assessed before treatment begins.

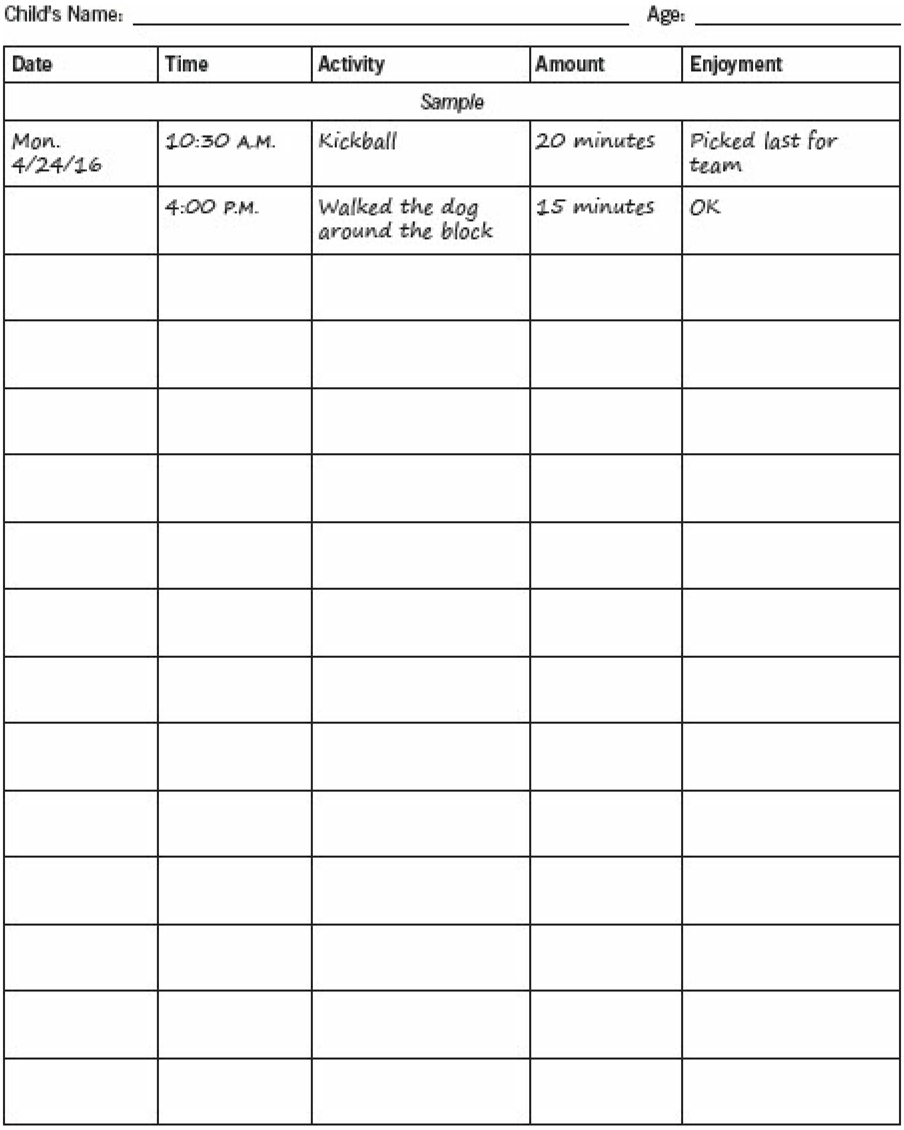
4. The child’s feelings about his or her weight should also be assessed. Furthermore, his or her attitudes and beliefs about eating should be explored, especially if the child is severely overweight, as these can inform the clinician about the potential for more serious eating disorders (Wisniewski & Marcus, 1998).

5. A series of questions can determine the child’s understanding of the benefits of losing weight or eating healthier foods: (a) “What are the bad things about being overweight?”; (b) “What are the good things about losing weight?”; (c) “What difference would losing weight make for you?”; (d) “What do you imagine might change if you lost weight?”; (e) “Can you see any problems with losing weight?”; and (f) “What might be the good things about being overweight?”

6. Asking the child about friends, including how many things they do together, how often they spend time together, and their weight (whether it is similar, more or less) and activities, gives information about preferred activities and social support.

7. Food and activity recording sheets should be given to the family and discussed at this session. Daily self-monitoring of food intake and activity is necessary for a baseline period of about 1–2 weeks, but the clinician should be aware that overweight children and adults are known to be inaccurate in estimating their intake. Sample food and activity records are shown in Figures 3.1 and 3.2, respectively. The clinician should make sure that the child and parents understand how to complete these records. They should be informed that regular completion of records is highly associated with successful weight loss and maintenance of the loss.

Daily Activity Record



Child's Name: ______________________ Age: __________

Date	Time	Activity	Amount	Enjoyment
Sample				
Mon. 4/24/16	10:30 A.M.	Kickball	20 minutes	Picked last for team
	4:00 P.M.	Walked the dog around the block	15 minutes	OK

FIGURE 3.2. A chart for recording daily activity.

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Step 3: Observation of Behavior

Observation of parent–child interactions during the interview is useful in determining the support that the parents will give the child during treatment. In addition, observing how the child reacts to the discussion can give information on the child's interest in treatment and/or steps that may be needed to elicit his or her cooperation with the treatment plan. Visiting the home during mealtime or videotaping several mealtimes can provide useful information. The focus of this observation should be on behaviors that may interfere with treatment (e.g., family conflict, nagging or teasing about the child's eating, eating in front of the TV) and on behaviors that might indicate inaccuracy of food records (e.g., overly large portions, overuse of butter or salad dressing).

Step 4: Further Assessment

Further psychological assessment is only necessary if other problems become evident during the assessment process.

Step 5: Collaboration with Other Health Care Professionals

A medical evaluation should be done before the initial interview with the family in order to rule out any problems that would contraindicate a moderate decrease in calories and increase in activity. It is important to note that moderate calorie restriction does not affect children's long-term growth and is not associated with the onset of more serious eating disorders such as anorexia nervosa or bulimia nervosa (Wisniewski & Marcus, 1998). Parents may find that a consultation with a nutritionist is helpful as they progress in treatment. Parents should also be referred to an appropriate professional or agency if their own obesity is a significant problem.

Step 6: Communication of Findings and Treatment Recommendations

Following the assessment sessions, it is important for the clinician to share information with the parents about the child's development and the nature of the child's weight problem. This is particularly important, because the parents' and the child's trust in the clinician and cooperation in the treatment process depend on their understanding of the problem. The nature and possible etiology of the obesity should be shared with the parents and child, and they should be given a rationale for the treatment recommendations. This process often involves explanations of the value of previously attempted methods and possible reasons why they did not work. Furthermore, the clinician can review factors that have been shown to be associated with successful treatment (i.e., family involvement, careful self-monitoring, and lifestyle changes).

TREATMENT OF OBESITY

Childhood obesity poses a significant public health concern, and without treatment, children may continue to be obese into adulthood, with all of the associated comorbidities and difficulties in losing weight (Cunningham, Kramer, & Narayan, 2014). Policy changes have targeted promoting fat and sugar content on food nutrition labels, school nutrition-standards (e.g., school meals and vending machines) and physical activity (e.g., both in school and developing safe school routes). For example, since 2012, the U.S. Department of Agriculture (USDA) has required that children select fruits and vegetables (FV) at lunch. This policy increased the amount of FV selected compared to when such selection was optional but children consumed fewer FV and wasted more FV (Amin, Yon, Taylor, & Johnson, 2014). With repeated exposure to FV, children are likely to adjust to eating more FV, and there is some evidence that this is happening. The combined diet and activity interventions in schools show promise, with 45% of reviewed studies demonstrating significant BMI decreases in intervention groups compared to control groups (Brown & Summerbell, 2009). Prevention and early intervention are key to stemming the epidemic of obesity in the United States, but it will take continued effort and time to increase healthier life styles.

There have been a number of reviews and meta-analyses of treatment methods targeted at treating childhood obesity (e.g., Altman & Wilfley, 2015; Janicke et al., 2014; Jelalian & Hart, 2009; Jelalian & Saelens, 1999; McGovern et al., 2008), highlighting empirically supported effective treatments—not only in promoting weight loss but also in helping children maintain the loss, improve self-concept, and reduce eating disorder symptomatology and behavioral problems. The most successful treatments are multicomponent family lifestyle interventions that include a combination of (1) dietary modifications (quantity and quality); (2) physical activity (increasing its intensity and duration and decreasing sedentary activities); and (3) the use of behavioral strategies to facilitate these changes. Including a family member(s) in treatment to help facilitate and maintain these changes is important to the success of treatment (Boutelle et al., 2014; Janicke et al., 2014). Behavioral strategies are necessary to facilitate the changes and include goal setting and reinforcement for goal achievement; monitoring of diet and physical activity; stimulus control, gradual shaping, child behavior management strategies including differential attention and contingency management; social support, problem solving, and motivational techniques (Altman & Wilfley, 2015).

Overall, there is support for family-based treatment (FBT; includes parent(s) and child) as the first line of treatment, with or without parents' weight being targeted for treatment. Parent-only behavioral treatment in which the parent is taught behavioral strategies to change the diet and exercise patterns of their children has also been as effective as children's group and individual treatments. Individual treatment, including home visits for preschoolers, has been shown to be significantly more effective than clinic-based treatment (Stark et al., 2014). Early intervention is better than later intervention, but adolescents also benefit from treatment (Altman & Wilfley, 2015). One study found that a child had a 47% chance of achieving a clinically significant decrease in BMI for each year treatment was started at a younger age, and indeed, significant weight reductions are seen more frequently in children compared to adolescents (Danielsson, Kowalski, Ekblom, & Marcus, 2012). Janicke et al. (2014) found that more treatment sessions, longer treatment (duration in weeks), and increased time the child spent in treatment were significantly associated with better weight outcomes. For example, 26 hours of treatment contact had a moderate to large effect on outcome compared to 10 hours of contact, with improved treatment effectiveness with increased contact and more intensive treatment (Whitlock, O'Connor, Williams, Beil, & Lutz, 2010). Other data indicate that parental adherence to a behavioral program appears to be more important than the amount of time the parent spends in treatment or on his or her own lifestyle changes (Faith et al., 2012; Janicke et al., 2014). Taken together, this data suggests that effective treatment takes time to bring about significant changes in habits that decrease weight gain, and parental adherence to a child weight reduction program and time in treatment can both increase the success rate of child weight management programs.

Further, four months of weight maintenance treatment (behavioral skills maintenance or social facilitation treatment) following FBT has been shown to be effective in preventing weight regain (Wilfley et al., 2007). There are few successful treatment programs for children who are more than 100% overweight, or who have comorbid psychopathology (Nemet et al., 2013), although younger children ages 6–9 years with severe obesity have better outcomes than older children and adolescents (Danielsson et al., 2012).

Treatment Protocol

The treatment protocol described here involves diet, physical activity, and behavioral strategies, and is based on work by Epstein and his colleagues (e.g., Epstein et al., 2001; Epstein, Paluch, Roemmich, & Beecher, 2007). It is often referred to as the "stoplight diet," and its emphasis is on teaching healthy lifestyle changes. A number of comprehensive intervention programs are based on Epstein's stoplight diet and have been demonstrated to be effective in decreasing BMI and increasing HRQL (e.g., Positively Fit intervention; Steele & the Pediatric Health Promotion and Maintenance Lab, 2008). The focus of treatment is on increasing healthy behavior and decreasing unhealthy behavior, modifying environmental cues leading to a positive energy balance, providing healthy models for children, and teaching new parenting skills that reduce using food as a reward and increase supports to the child so that weight maintenance/loss will continue posttreatment. This approach will not result in a dramatic decrease in weight during treatment, but over time, weight will decrease.

The parents and child are usually seen together to review the week's progress, go over homework and goals for the previous week, discuss and problem-solve difficulties, and assign homework and set goals for the following week. The child and parents may be seen separately as needed, and treatment may be conducted either in groups or individually. Group treatment usually involves the parent and child having concurrent sessions, with time together to cover progress and set goals.

Basic Information for the Parents

The fundamental message for the family is that the child must consume fewer calories and expend more energy in order to lose weight. This involves defining calorie intake for a particular child, increasing low-calorie-dense foods (i.e., FV), decreasing high-energy-dense foods (i.e., high fat, high sugar), and increasing exercise. A pound equals about 3,500 calories, so the balance of intake and output must be adjusted accordingly. As an example, the child would reduce the number of calories consumed by 300/day, and increase his or her daily exercise by 200 calories/day, in order to lose 1 pound a week; any combination of lower intake versus greater output will suffice; however, in order to ensure adequate calories for growth and development, the child should never consume fewer than 1,000 calories/day. Furthermore, children have specific needs for protein, calcium, and iron, so consultation with a nutritionist or dietitian may be needed. Very-low-fat diets, which are sometimes prescribed for adults, are not appropriate for children; it is recommended that fat intake should be at about 30% of calories. The stoplight diet focuses on caloric intake by defining food groups as "red" (stop), "yellow" (caution), and "green" (go). Red foods have 7 or more grams of fat and 12 or more grams of sugar, (i.e., junk food) and should be eaten no more than four times a week; yellow foods are vegetables with increased starch (e.g., potatoes, corn, peas) and fruits with more sugar (e.g., bananas, dried fruit), which make up about half of healthy meals but should not be used as snacks; and green foods are high-fiber, low-starch foods (green leafy vegetables and fruits such as apples, grapes) that are part of both meals and snacks. Research has shown that rather than eliminating all red food, which could lead to a preference for these foods, it is better to focus on increasing healthy, high-nutrient-dense foods (e.g., Epstein et al., 2001; Janicke et al., 2014).

The importance of increased exercise for weight loss cannot be overemphasized, with a goal of 60 minutes/day, 5 days/week (U.S. Department of Health and Human Services, 2008). Exercise for weight loss should be primarily aerobic and easy to incorporate into a daily routine (e.g., walking or riding a bike to school, using stairs instead of an elevator) as opposed to weight lifting or calisthenics, although the latter types have their own benefits (i.e., building or toning muscle) and can be used in combination with aerobic activities. Research has shown that reinforcing children for reducing targeted sedentary behavior (e.g., computer time), while leaving them with the choice of what to do instead, contributes to a decreased preference for the specified sedentary activity. In contrast, children whose targeted sedentary activities are restricted by parents come to desire those activities more over time.

Providing this basic information to parents and children is not enough to change eating habits and increase activity, and it is important to provide/teach behavioral strategies that facilitate the necessary changes. Specific behavioral intervention strategies are discussed in the context of the CAIS (see Chapter 2), with emphasis on five areas: the child, the parents, the environment, consequences of behavior, and medical/health aspects.

Intervention with the Child

The first step in treating childhood obesity is providing the child with accurate information about diet, exercise, and weight loss. The information outlined earlier should be given at the developmental level of the child to ensure that he or she understands it. Furthermore, the child should be engaged in setting daily and weekly goals for calorie reduction by using the stoplight diet (1,200–1,500 calories/day) and changes in activities. Problem solving can be used to identify the types of physical activities the child is most likely to enjoy, and to determine what foods will be eliminated to reach the healthy eating goal.

Self-Monitoring

Self-monitoring is a critical component of the weight loss program. If developmentally appropriate, the child should weigh him- or herself every day and record the weight. If appropriate, the child should record (see Figure 3.1) everything he or she eats using the stoplight diet, and when and where it is eaten. Similarly, a Daily Activity Record (see Figure 3.2) should be kept of all exercise in which the child engages, including the date, time, and place; type of exercise; duration; and whether or not the child enjoyed the activity. We have found that a simple activity monitor called a Clicker is very effective in tracking daily activity and motivating children to "keep moving." The Clicker records the number of steps taken, miles traveled, and calories expended. A goal of 10,000 steps or clicks/day is reasonable. The Clicker can be obtained for about $30 from Optimal Health Products, 888-339-2067 or *www.optimalhealthproducts.com*. The Fitbit can also record activity level and calories expended. Daily data on activity level, calories consumed, and weight can be graphed during the child's weekly sessions with the clinician and provide a visual demonstration of progress. Sedentary activity should also be recorded, with a goal to decrease these activities to less than 2 hours/day (Brown, Shifrin, & Hill, 2015). There are mobile apps available to help with recording diet and exercise, but Brannon and Cushing (2015) found in a systematic review that the majority of effective strategies for children are not widely incorporated in mobile apps. Similarly, some child video games (e.g., Wii, Pokémon GO) incorporate physical aspects but should be monitored for the balance between an activity and a sedentary focus.

Stimulus Control

The goal is to restructure the home environment to increase the chance of success. Examination of the child's baseline data helps the clinician identify situations that promote poor eating habits (e.g., eating in front of TV, having cookies before bed). The child can then problem-solve ways to avoid these situations or change them so that they no longer promote the desire to eat. Other stimulus control techniques include (1) removing red food items from the house; (2) increasing family mealtime and decreasing prepared foods (e.g., fast foods); (3) eating more slowly (e.g., putting utensils down between each bite, chewing each bite a certain number of times); (4) eating only in one room; (5) using smaller plates so that servings appear larger; and (6) serving individual portions versus family style. Teaching children how to select appropriate foods according to the stoplight diet is also an important stimulus control (Epstein & Squires, 1988).

Cognitive Restructuring

Cognitive restructuring is a form of self-control that helps a child substitute helpful thoughts for less productive thoughts. As an example, a child who may be thinking, "I'll never lose all this weight," can be instructed to say instead, "I know I can eat more green foods and eat only six red foods this week." Cognitive restructuring requires the child to be aware of and record or verbalize his or her thoughts. Consequently, it may be more useful with older children.

Shaping

Shaping involves taking gradual steps to meet a larger goal. The idea of setting smaller daily or weekly goals is an example of shaping. If the child's baseline data indicate that he or she is eating two or three red snacks each day, the goal can be to reduce this to one a day, with green snacks (e.g., carrots) substituted for the remaining snacks. The next goal can be to eat one red snack every other day, then every 3 days, and so forth. Eventually, all high-calorie snacks will be limited to less than four a week.

Developing Alternative Behaviors

Children who are obese often restrict their activities to sedentary ones. The clinician can help the child think of alternative activities that promote weight loss. For instance, if television viewing or playing computer games is a predominant activity, the child can think of something else he or she could do (e.g., go outside, ride a bike, play an active game with a brother or sister). Similarly, when the times the child is most likely to snack are identified from the baseline data, activities other than eating can be substituted during those times.

Planning Ahead

Learning to plan ahead is an important skill for children who want to lose weight. When calorie goals for the week are set, the child can be prompted to anticipate events such as birthday parties, Christmas, or special family get-togethers, so that he or she can participate without feeling left out or deprived. By reducing the amount of calories (i.e., red foods) consumed in the days prior to the event, the child can then eat otherwise “forbidden foods” without feeling guilty or getting discouraged.

Assertiveness Training

The child can learn how to respond to well-meaning adults who seem to have a mission to feed children. Problem solving and role playing these types of situations can help the child come up with reasonable responses to people who pressure him or her to eat—for example, “No, thank you, I am trying not to eat so much,” or “No, thanks, I’m not hungry right now.”

Relapse Prevention

Clinicians can review with children and their families that everyone experiences lapses in their efforts to lose weight. The key is how these lapses are handled. A strategy for dealing with lapses might include cognitive restructuring (e.g., “Everyone makes mistakes; I am not a failure”) and a restart plan in which the child goes back to careful monitoring of green, yellow, and red foods and activity levels, and resets reasonable goals.

Intervention with the Parents

Parents must be included in the discussions with the child of the information and strategies described earlier, because they will be responsible for helping the child carry out his or her assignments at home. Moreover, the clinician cannot assume that parents will know how to implement the weight loss program at home; thus, several sessions focused on basic principles of behavior modification may be needed. Basic knowledge about healthy–unhealthy foods and activity levels will help the parents generalize behavioral techniques to a variety of situations. Moreover, the clinician can help the parents problem-solve difficult situations.

One difficult task that many parents have is meeting the various needs of their children, especially when one child needs to lose weight and another does not. In these cases, it is important to engage the whole family in helping the target child with the program. This will involve sacrifices from other family members, who may be asked to give up favorite desserts, at least while the target child is present. Parents can be reassured that it never hurts anyone to change to a more healthful diet, and that their other children will benefit, even if they do not need to lose weight. Both parents must be in agreement with this idea. If one parent, for example, insists on eating primarily meat, potatoes, and gravy, it will be difficult for the other parent to prepare healthful, low-calorie food for the child. Engaging the family in problem solving is an effective way to resolve these issues. The clinician should be aware, however, that these are likely to be ongoing problems; as such, they will need to be revisited from time to time.

Modeling

Parents can model eating healthy family meals and physical activities (e.g., walking, going to a park). They can also support physical activity by encouraging structured sports, going swimming, joining the Boy Scouts, and so forth.

Intervention in the Environment

The clinician should help parents alter the home environment so that it facilitates the child's weight loss, such as limiting unhealthy foods, (i.e., red foods). Planning meals carefully, purchasing appropriate foods (FV), having healthy low-calorie snacks available, and providing regular and consistent mealtimes and physical activities are all ways to accomplish this change.

Changing the Consequences of the Behavior

Parents may benefit from specific training in contingency management and differential reinforcement techniques, particularly parents of preschoolers and young children who may not be invested in a weight management program (see Chapter 10 for more information on these techniques).

Parents must also be involved in determining appropriate reinforcers to ensure that the child's eating behavior changes. For instance, reinforcement for successful self-monitoring is often necessary to motivate children to do this routinely. Points can be assigned for daily recording and traded at the end of the day (or week, for an older child) for something the child wants. However, reinforcers should not include food or increased television or computer time. Rather, the clinician can help the family decide on special activities (e.g., playing a game with Mom or Dad, having a friend sleep over, going bowling, taking dance lessons) or toys (e.g., roller skates, a baseball or glove).

Because parents (and other family members) also may need to change their eating behavior, the family members can be engaged in contracting with each other, so that each member is reinforced. Reinforcers can be given by the child to the parents, just as the parents provide reinforcers for the child.

Intervention in Medical/Health Aspects

As noted earlier, children under the age of 5 should be followed by a physician to ensure adequate growth during a weight loss program. If necessary, parents should have a consultation with a dietitian or nutritionist to obtain information about the specific dietary needs of their child. A Cockrane review of pharmacological treatments for obesity reported that sibutramine was effective in reducing weight for adolescents after 6 months of use (McGovern et al., 2008). It did, however, elevate blood pressure and pulse rate. Orlistat was found to have a small to moderate effect on obesity outcomes, with side effects of abdominal discomfort, pain, and *steatorrhea* (i.e., presence of excess fat in stool) (Padwal & Majumdar, 2007). If pharmacological treatments are used it is recommended that they be used in conjunction with a more comprehensive weight management program.

CASE EXAMPLE: OBESITY

Step 1: Initial Contact

A pediatrician referred 9-year-old Jamal, who had experienced a significant weight gain in the past 6 months. Although his mother, Mrs. Jones, had taken him to a nutritionist, she was having difficulty implementing the recommendations. She stated that her 11-year-old daughter, who had mild cerebral palsy, had the opposite problem—eating enough to maintain her weight. In addition, Ms. Jones indicated that she herself had always been considerably overweight and had recently developed diabetes. Jamal's father was not involved with the family.

Mrs. Jones completed and mailed to the clinic the General Parent Questionnaire, the ECBI, the PSI-4, and the CBCL, as well as the 5-day food and activity records for Jamal. Her report on the General Parent Questionnaire described a lower-middle-class family with a large extended family in the area, whose members provided considerable support. Mrs. Jones described Jamal as an active boy with many interests, who was doing average work in school. Early developmental history indicated an uncomplicated birth and no major health issues. Jamal's recent weight gain was of concern because of Mrs. Jones's history of obesity. Mrs. Jones wondered whether the problem was hereditary or just a result of poor eating habits. On the ECBI, Mrs. Jones scored Jamal within normal limits on both frequency and intensity of disruptive behaviors. The only elevated score on the CBCL was in the area of Somatic Complaints, which included eating and some toileting problems. The Child Domain scores on the PSI-4 were within the normal range, with Jamal's mother perceiving him as a reinforcing child. On the Parent Domain, Mrs. Jones had elevated scores on the Depression scale and noted physical health problems.

Step 2: Initial Intake Interview

Mrs. Jones and Jamal came together for the interview. She presented as a large but not obese woman. She was obviously self-confident but very worried about her son. Jamal, who was clearly considerably overweight, readily participated in the interview as he made interesting things with Legos. Mrs. Jones indicated that many of her concerns about Jamal stemmed from the fact that she had been overweight as a child, and as a teenager had difficulties with social relationships, which she felt were due to her appearance. She was worried that Jamal would experience similar problems. She said that Jamal had not had a weight problem prior to the recent precipitous gain, but that he had always eaten a considerable amount of food and ate very fast. At times, he ate so much so quickly that he vomited. Approximately 6 months earlier, he had gained 12 pounds over a 2-month period; despite all their efforts, he was continuing to gain 2–3 pounds a month. Mrs. Jones could not point to any major event or specific stress in the family that might have caused Jamal's weight gain, but she said that Jamal had decreased his participation in physical activities that he previously enjoyed. Instead, he had developed an interest in playing computer games and building car models, which he usually did while watching television. She said that he was increasingly becoming the focus of jokes and teasing from his peers, and that his sister had also begun calling him such names as "Fatty" and "Porky," and teasing him at mealtimes about his eating habits. Part of the problem with trying to control Jamal's weight was their frequent visits with the maternal grandmother, who served delicious but high-calorie meals in large quantities, and encouraged everyone to eat. In addition, most social activities for the family revolved around food. This, coupled with the need for her daughter to have a high-calorie diet to gain weight, made meal planning and preparation overwhelming.

When the clinician followed up on the indications of depression on the PSI-4, Mrs. Jones said that she had been experiencing increased stress at work over the past 2 years and was having difficulty coping with those stresses in addition to the family issues. She said that she was not sleeping well and had begun eating increasing amounts of food.

In the interview with Jamal alone, he indicated that he had a number of friends at school, but fewer than the previous year. He described family relationships as mostly positive but was clearly distressed about his sister’s teasing. Although he could list a great many activities that he enjoyed, he said he often felt “too tired” to engage in them. He was very interested in losing weight but saw the only solution as “just stop eating.”

Step 3: Observation of Behavior

The food and exercise records indicated that Jamal was eating a good variety of food (mostly healthy) but was consuming two to three times the expected amount for a child his size. Exercise was limited to walking to the school bus each morning and an occasional game of basketball with his cousins. The parent–child interaction was pleasant and supportive, with open communication.

Step 4: Further Assessment

Given Jamal’s social problems in school, his teacher was asked to complete the Teacher’s Report Form of the CBCL and the Social Skills Rating Scale. In a phone call, Jamal’s teacher reported that Jamal was a pleasant child who presented no problems in the classroom. On the Social Skills Rating Scale, he had many excellent social skills, with ratings well within the expected range for children his age. His teacher felt, however, that his weight clearly bothered him, made him hesitant to engage in physical activities, and appeared to cause him to decrease his social interactions. Other children were also beginning to make comments about his weight.

Step 5: Collaboration with Other Health Care Professionals

Mrs. Jones was receiving regular medical care for her diabetes. She was referred to a psychiatrist for evaluation; this resulted in a prescription for an antidepressant. Her previous consultation with the nutritionist provided a great deal of information that was used in planning a treatment program for Jamal. Jamal’s primary care physician was contacted, and she reported that Jamal was healthy and that there was no medical explanation for his sudden weight gain. She agreed with a family-based treatment plan, and the clinician agreed to provide her with monthly feedback on Jamal’s progress.

Step 6: Communication of Findings and Treatment Recommendations

Jamal’s sister was invited to participate in the feedback session with Mrs. Jones and Jamal. The family members in general, and Jamal in particular, were described as having many strengths; however, they were faced with dealing with many potentially difficult health issues, primarily around eating. Although there was no known medical cause for Jamal's weight gain, it appeared that the quantity of food he was eating, the pace at which he ate, and his lack of exercise were major contributing factors. The negative focus on weight by his sister, his peers, and even by Jamal himself were also described as making it more difficult to get this problem under control. Jamal and his mother were praised for their interest in participating in a healthy eating and exercise program. It was stressed that Jamal could not do this alone, but that the whole family had to participate in the treatment program in order for him to be successful. Although the sister's difficulties with weight were the opposite of Jamal's, they were seen as no less important than Jamal's and needed to be taken into consideration in planning treatment.

Treatment recommendations included developing a family meal plan that took into account everyone's needs; increasing Jamal's physical exercise; and weekly contact with the clinician to review food and exercise data to help Jamal develop more appropriate eating habits and to deal with any problems in following the plan. The basic information outlined earlier in this chapter regarding diet, exercise, and weight loss was shared with the family.

Course of Treatment

On the basis of the food and activity records, weekly goals for gradual calorie reduction and increases in activity level were agreed upon. A self-monitoring system was developed, including the use of a Clicker. Jamal stated that he thought he could keep his own records, but agreed to his mother reviewing these with him every evening. This gave Mrs. Jones the opportunity to reinforce his progress and to problem-solve any difficulties. Rules for healthy eating habits and the stoplight diet were reviewed and posted on the refrigerator. One of the agreed-upon rules was for Jamal to eat a meal over a 20-minute period of time; this he was to accomplish by eating more slowly, chewing food more times, and engaging in conversation with his mother and sister. A second rule was for all family members to avoid any negative comments about food, including teasing or nagging, at any time.

The family members participated in a session focused on meal planning that allowed each of them to have their individual needs and wishes regarding food met. Foods were divided into categories of green or "go," "yellow or "caution," and red or "stop," according to their relative fat, sugar, and caloric content. The clinician also helped the family plan ahead for visits with the grandmother, so that her food could be enjoyed but would not disrupt their long-range goals. Suggestions included eating less the day before a visit, eating smaller amounts, and learning to say, "No, thank you!" If necessary, Ms. Jones was encouraged to fix special drinks for her daughter, such as smoothies or milkshakes, to help her consume enough calories to maintain her weight.

Over the course of about 6 months, Jamal slowly stabilized his weight and also began to grow taller, which ultimately resulted in more appropriate weight for his height. He began to participate more in sports activities that he had previously enjoyed. His problems with constipation also decreased, although this was not focused on specifically. Mrs. Jones responded well to the antidepressant, reporting that she was less distressed and sleeping better. Her weight also stabilized. Then, Mrs. Jones, in agreement with the clinician, decided to terminate treatment sessions. The family members were encouraged to continue to monitor their food intake and activity level, and to call the clinician if needed.

RESOURCES FOR CLINICIANS

Cooper, P. J., & Stein, A. (2016). *Childhood feeding problems and adolescent eating disorders.* London: Routledge.

RESOURCES FOR PARENTS

Ernsperger, L., Stegen-Hanson, T., & Gardin, T. (2004). *Just take a bite: Easy, effective answers to food aversions and eating challenges.* New York: Ingram.

Ernsperger, L., Stegen-Hanson, T., & Gardin, T. (2005). *Finicky eaters: What to do when kids won't eat.* New York: Future Horizons.

Schor, E. L. (1999). *Caring for your school-age child: Ages 5–12*. New York: Bantam.

Shelov, S. P., Altmann, T. R., & Hannemann, R. E. (Eds.). (2014). *Caring for your baby and young child: Birth to age 5* (6th ed.). New York: Bantam.

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[1] *Feeding,* as opposed to *eating,* usually refers to the interaction between the parent and the child that is necessary for a young child to eat.

[2] For research purposes, the distinction between *overweight* (OV) and *obese* (OB) children is important, but many researchers use the terms interchangeably, and for clinical purposes, we do the same, using the term OV/OB, unless specific criteria are used in a study.

CHAPTER 4

Toileting

Training, Enuresis, and Encopresis

TOILET TRAINING

Given varying cultural and societal attitudes about when a child is “ready” to be trained and what constitutes independent toileting, there is no scientific basis for a universal time line or method for toilet training. For example, many motivated parents in China, India, South America, Central America, and some European countries begin “assisted” toilet training in early infancy, with reports of successful independent urine training at 15 months and bowel training at 17 months (Rugolotto, Sun, Boucke, Calo, & Tato, 2008; Sun & Rugolotto, 2004). In the United States, it is widely accepted that toilet training is a developmental process requiring a child’s active participation. Thus, as with other developmental milestones, there are predictable physical and behavioral clues to determine when a child is ready to toilet train, but training depends on each child’s development level, response to training, and environmental factors (e.g., parent availability, a move, new siblings). Understanding toilet training theories and methods, as well as the practical issues surrounding the timing of toilet training, helps the clinician objectively address not only toilet training but also toileting difficulties.

Over the past 60 years, despite limited scientific research, two widely accepted theoretical approaches to toilet training have been supported by clinical experience: child-oriented gradual training and structured behavioral training. Brazelton’s (1962) widely used child-oriented gradual approach is based on a maturational/behavioral process that involves an integration of neurological, muscular, and behavioral systems. It delays training until 18 months and takes into account each child’s observed physical and behavioral signs of readiness, which include (1) voluntary control over bowel and bladder reflex actions (remains dry for several hours, voids large amounts of urine, and is aware of the need to void), which is expected to emerge at 9 months; (2) the ability to cooperate with the parent, which is expected to emerge at 18–24 months; (3) neurological development that is probably present by age 18 months, when the child is able to walk and pick up small objects; and (4) the child’s willingness to be trained. Regardless of the training method, the literature supports Brazelton’s readiness parameters (Berk & Friman, 1990; Brazelton et al., 1999; Kiddoo, 2012). Although studies and case reports demonstrate that children can signal and withhold (for a short period) their impending bowel and bladder emptying as early as 6 months (Smeets, Lancioni, Ball, & Oliva, 1985; Rugolotto et al., 2008), this does not constitute voluntary and independent toileting. It does, however, indicate the power of consistently applied behavioral reinforcement methods and the lack of support for delaying training on the basis of maturation. Starting before the child meets Brazelton's readiness criteria, however, will require a great deal of effort on the parent's part and will likely take longer to complete toilet training.

Foxx and Azrin's (1973) structured behavioral method is based on an applied behavior analysis of toilet training that identifies the specific components of toileting readiness and provides a systematic approach to training. In addition to Brazelton's maturational signs, the method includes (1) a stimulus-free environment (e.g., the bathroom), (2) modeling, (3) repeated practice, (4) attention to the component responses (e.g., walking to bathroom, undressing, sitting), (5) immediate reinforcement for correct responses, (6) immediate detection of incorrect responses (accidents), (7) mild punishment (cleaning up accidents), and (8) stimulus control (e.g., a distended bladder is associated with the bathroom). In a study of 34 children with a mean age of 25 months (range 20–36 months), all the children were trained in an average of 3.9 hours! Although research has supported the effectiveness of the Foxx and Azrin approach, several studies indicate that parents have trouble using the intensive training approach without supervision. However, Foxx and Azrin provide a great deal of useful information on the specific components of toilet training and the value of using a systematic behavioral approach to training, in terms of both time and effort.

Regardless of training method, most children are fully toilet trained between 24 and 36 months of age, and almost all children are trained by 48 months of age, with bowel maturation typically preceding bladder maturation (Brazelton et al., 1999; Kiddoo, 2012). Furthermore, if toilet training is started when the child is older than 26 months, it is accomplished twice as fast as when it is started when the child is younger than 2 years (Blum, Taubman, & Nemeth, 2003). In general, toileting is considered premature and more problematic when initiated before the necessary skills are present, while initiating training after 36 months may increase the risk of acute infectious diarrhea and hepatitis among children in day care, as well as increase the prevalence of other problems such as parent–child conflict, constipation, and refusal to go on the toilet (Kiddoo, 2012; Luxem & Christopherson, 1994; Mota & Barros, 2008). Children who are less adaptable, less persistent, and more irritable are reported to have more difficulty with toilet training, to be more constipated, and to hide or ask for a diaper/pull-up to have a bowel movement (Schonwald, Sherritt, Stadtler, & Brigemohan, 2004). Environmental circumstances such as a chaotic home, parental conflict, a new baby, or unavailable parents can also make training more difficult.

In summary, toilet training is a developmental milestone with physiological, behavioral, and environmental factors all playing a part in the process. The recommended method of training that we use takes into account Brazelton's (1962) readiness parameters, uses a behavioral approach that incorporates many of the Foxx and Azrin (1973) behavioral components, and requires the parent to be systematically involved in the training process. Although we do not have empirical data to support the efficacy of this approach, parents have given it strong endorsement; they indicate that for children age 24 months and older, the average toilet training time is 2–4 weeks, with occasional accidents for several months. Although parents adapt the program to their circumstances, it is important for the clinician to be aware of the steps that help children learn to use the toilet in a positive and effective way, which is especially important when treating enuresis and encopresis.

Step 1: Determining Readiness

To be successful at toilet training, a child must be able to (1) consistently empty his or her bladder, stay dry for several hours, and be aware of the urge to void; (2) communicate needs verbally or by other means; and (3) understand and comply with one- and two-step directions. When ready to be trained, most children show a fairly regular pattern of urinating 4–9 times a day. Bowel movements may occur at intervals varying from once every other day to twice daily, and at different times each day. The first step in toilet training is to determine the times when the child normally empties his or her bladder or bowel. This gives information about the child's ability to control the sphincter muscles (increased time between wets); it also alerts the parents to the times when the child's bladder is usually full (voids larger quantities of urine), and when he or she is most likely to have bowel movements. Parents are instructed to check the child's diaper every 30–60 minutes and record D (dry), W (wet), or S (soiled) on a chart such as that shown in Figure 4.1. Parents should comment matter-of-factly to the child by saying "Oh, I see you're dry," or "Oh, oops, you're wet." This will take some effort on the parents' part, but gathering this baseline information before starting training makes the training process much easier. After 3–5 days of checking, a regular pattern of wetting should be evident. Bowel movements may occur at regular intervals (e.g., every 14–18 hours) as opposed to regular times of day, or they may occur about 30 minutes after a meal. If the child does not show a regular pattern or is wet every hour, it may be best to postpone training for a month or two.

Dry Pants Chart

Child's Name: ______________________ Age: __________

Record data for any 5 consecutive days during usual waking hours.

Time	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
6:30 A.M.							
7:00							
7:30							
8:00							
8:30							
9:00							
9:30							
10:00							
10:30							
11:00							
11:30							
12:00 noon							
12:30 P.M.							
1:00							
1:30							
2:00							
2:30							
3:00							
3:30							
4:00							
4:30							
5:00							
5:30							
6:00							
6:30							
7:00							
7:30							
8:00							

FIGURE 4.1. A chart for recording baseline data in toilet training. Parents should be given the following directions: (1) Set a timer for 30–60 minutes. When it rings, check the child's pants or diapers. (2) If dry and clean, say, "Oh, dry, good," and mark a D on the chart. (3) If wet or soiled, say, "Oh, wet [or stinky], yuck," and mark a W or S on the chart. (4) Do not act upset. Take your child to the bathroom and change the soiled clothes. (5) In 3–5 days you should see a regular pattern of times your child wets or soils.

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Step 2: No More Diapers

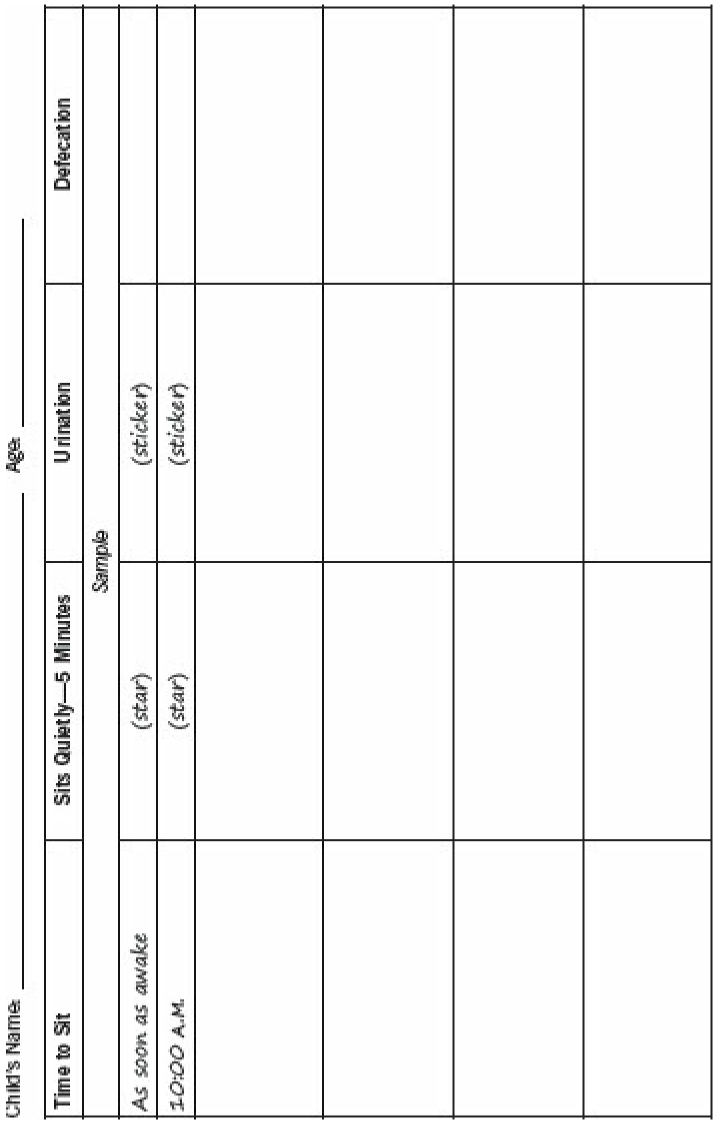
The next step in the training process is to stop using diapers entirely (except for naptime and at night) at home, day care centers, or on outings. Toilet training involves helping the child unlearn certain behaviors that were acceptable in the past and learn a complex set of new behaviors. Diapers serve as a cue to the old behaviors (urinating or defecating in a diaper). Thus, even periodic use of diapers during the day can be confusing to the child, making it more difficult to break old habits and learn new ones (i.e., urinating or defecating only in the toilet). For this reason, pull-up diapers should not be used. The child should wear regular thin underpants, which will make the consequences of wetting or soiling immediate and very evident. In addition, clothing that is easy to take off and put on will make it easier for the child to use the toilet independently. When the child is dry during the day and begins to have occasional dry naps and nights, it is time to stop using diapers completely. This approach allows the child to participate actively in gaining control over urination and defecation, without setting the expectations too high.

Step 3: Regular Sitting

Parents should be advised to use a potty chair or a toilet seat ring on the toilet, which decreases a child's realistic fear of falling into the toilet or being in a cramped position that inhibits complete evacuation. A toilet ring without a cup in front prevents children from hurting themselves when getting on–off the toilet. If the child sits on the regular toilet, support for the child's feet (e.g., a small step stool) should be provided. Bending slightly forward at the waist with hands in lap aids in voiding. If a potty chair is used, it should be kept only in the bathroom to help the child associate toileting with the bathroom.

The parents should have the child sit for up to 5 minutes when he or she is most likely to urinate or defecate, as evident from the daily Dry Pants Chart (see Figure 4.1). Use of a timer will help the parents and child keep track of the time, and let the child know when it's "OK" to get off the potty chair or toilet. It is best to keep the child focused on toileting and not be distracted by toys or electronic devices while on the toilet. Parents should reward the child with praise for sitting and draw a star on a Sitting Chart (Figure 4.2). More praise and a special sticker should be given when the child urinates or defecates in the toilet. The chart helps to record progress and reinforce successes; later, it can be used to reinforce the child for dry, clean days. Many parents reward their children by allowing them to wear fancy "grown-up" pants when they are using the toilet successfully. If the child wets the grown-up pants, he or she goes back to the thin training pants until the next successful toileting.

Sitting Chart



Child's Name: ______________ Age: ______________

Time to Sit	Sits Quietly—5 Minutes	Urination	Defecation
Sample			
As soon as awake	*(star)*	*(sticker)*	
10:00 A.M.	*(star)*	*(sticker)*	

FIGURE 4.2. A chart for recording sitting on the toilet.

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Step 4: Handling Accidents/Resistance

Because toilet training is a learning process, there will be accidents. At first, the child may wet his or her pants soon after getting off the potty chair/toilet, or “do some” in the potty chair/toilet, then shortly afterward “do some” more in the pants. This is a sign that the child is learning. A parent should handle accidents matter-of-factly by saying, “Oops, you’re wet [or dirty]. Let’s change. You’ll make it to the toilet next time.” The parent should have the child help clean up and change clothes, performing all of this in the bathroom. The child should then sit on the potty chair/toilet for 5 minutes to “finish up" (use the timer).

Some children are very resistant to toilet training. Depending on the age of the resistant child, it may be best to delay the training process until a later date or carefully review parent–child interactions, the environmental context, and the training process. In the absence of physical or significant emotional–behavioral problems or stress (e.g., parental divorce, a move), resistance is best handled by systematically teaching good toileting habits, as well as by ensuring that the child has a proper diet, plenty of exercise, and a consistent daily routine. For some children who refuse to use the toilet to urinate and/or defecate, the toilet seems to be associated with some painful event (e.g., hard stools) or a frightening thought or experience (e.g., fear of falling into the toilet). They may even ask to use a diaper or newspaper rather than use the toilet or mess their pants. In our experience, if children successfully use the toilet a few times, these problems quickly go away. Gradually desensitizing them to sitting on the toilet by first having them sit with their clothes or underpants on for increasing periods of time (up to 5 minutes), then having them sit without clothes at times when they do not have to void or defecate, can often resolve the problem. However, some children need their parents to let them know that they are going to help them by holding them on the toilet and counting out loud; the children can get off when they are quiet for a count of 10. Gradually increasing the count will help them learn there is nothing to fear. For bowel movements, if the stools are hard, more fiber and water can be added to the diet to help stools become looser and more difficult to retain. Christophersen and Purvis (2001) suggest using glycerin suppositories before a meal or before a bowel movement is likely to occur, then having the child sit on the toilet. It is important to note that Blum, Taubman, and Osborne (1997) did not find children with toilet refusal to have more emotional or behavioral problems than a matched group of control children.

ENURESIS

Description and Prevalence

Enuresis, involuntary urination with no known organic cause, has been a nuisance for hundreds of years. Treatment remedies predate modern civilization, with a discussion of enuresis in the Ebers Papyrus of 550 B.C.! Enuresis was also listed as a disease in the first book of pediatrics written in English, in a section titled "Of Pyssying in the Bedde" (Glicklich, 1951). Even today, nocturnal enuresis is the most common urological complaint of children (Robson, 2009). Although enuresis is usually not medically significant, it does cause distress for many children and their parents. The essential features of enuresis are repeated urination into clothes or bed occurring at least twice a week for a minimum of 3 consecutive months (or causing clinically significant distress or impaired functioning) in a child at least 5 years of age (when children are expected to be consistently dry both day and night) or the developmental equivalent, and the wetting cannot be exclusively due to a medical condition or drug reaction (DSM-5, American Psychiatric Association [APA], 2013). The wetting is usually unintentional, but occasionally it is done on purpose.

DSM-5 describes three subtypes of enuresis: *nocturnal* (wetting only during sleep), *diurnal* (wetting only during waking hours), and *nocturnal–diurnal* or *mixed* (APA, 2013). Children who have never been dry have *primary* enuresis; approximately 70–90% of bedwetting is within this category (Kushnir, Kushnir & Sadeh, 2013). *Secondary* enuresis is defined as wetting that develops after a minimum of 6 months of dryness, typically between ages 5 and 8 years (APA, 2013). Children with primary and secondary enuresis are clinically similar, with the exception that those with primary enuresis have significantly more constipation (Robson, Leung, & Van Howe, 2005), which is most often recognized by the physician rather than by parent report (McGrath, Caldwell, & Jones, 2008). About 5–10% of children with primary enuresis experience some subtle daytime voiding symptoms such as frequency, urgency, or incontinence (Robson et al., 2005).

Prevalence rates vary based on a particular study's definition of enuresis; it generally is agreed that the overall prevalence of enuresis is approximately 5–10% among 5-year-olds, 3–5% among 10-year-olds, and 1% for individuals age 15 years and older (APA, 2013; Butler, Golding, Northstone, & ALSPAC Team, 2005). In a large, longitudinal study, Butler and Heron (2008) found that at least 20% of children in first grade occasionally wet the bed, and 4% wet the bed two or more times a week. Prevalence rates decline progressively, with 5–10% of these children spontaneously achieving control every year (APA, 2013). Nocturnal enuresis occurs twice as often in boys than girls (in adolescence, girls have higher rates than boys), while diurnal enuresis is more common among females (APA, 2013; Butler et al., 2005). Estimates of daytime wetting and mixed enuresis are lower than for bedwetting, ranging between 0.5 and 2% for both boys and girls ages 6–7 years (Campbell, Cox, & Borowitz, 2009). These two problems are uncommon for both boys and girls after 9 years of age (APA, 2013). There appears to be a greater incidence of medical problems in daytime wetting, with more urinary tract abnormalities such as incomplete bladder emptying, fractionated voiding curve, and marked structural or functional disorders (Robson, 2009). Bedwetting is clearly a common childhood problem that improves significantly with age alone. The prevalence and developmental trajectory of enuresis is similar across countries and among ethnic and racial groups (APA, 2013). Children in residential institutions, and those with developmental delays, including speech, language, learning, and motor skills, are at higher risk for enuresis (APA, 2013; Campbell et al., 2009).

Etiology

Enuresis is a heterogeneous disorder, and physical and psychological/behavioral factors should be considered in determining the best course of treatment for an individual child.

Biological Factors

The actual incidence of organic urinary incontinence is low in children: Estimates range from 1 to 3%. Organic causes that have been identified include various acquired and congenital nervous system lesions; disorders in the neural enervation of the bladder; structural problems of the genitourinary system; bladder or urinary tract infections; and some chronic diseases, such as diabetes, seizure disorders, or sickle-cell disease (see Campbell et al., 2009, for a review). Given the progressively declining prevalence rates of enuresis, the majority of children appear to have a maturational delay in their ability to arouse and, therefore, to recognize a full bladder during sleep or the micturition reflex is not inhibited in sleep, so wetting occurs (Equit et al., 2014; Neveus, 2008; Yeung et al., 2002). Many parents report that these children are "deep sleepers" and are difficult to awaken. Sleep studies using electroencephalograms and auditory tones presented via earphones revealed that enuretic children were four to five times harder to awaken than nonenuretic children (Gellis, 1994; Wolfish, Pivik, & Busby, 1997). The problem appears to be a dysfunctional arousal system during sleep (in the brainstem and the activity of the autonomic nervous system) rather than a problem in any particular stage of sleep (Neveus, 2008; Neveus, Steinberg, Lackgren, Tuvemo, & Hetta, 1999). Sleep apnea due to upper airway obstruction (e.g., enlarged tonsils and adenoids), and enuresis have been associated; paradoxically, people with sleep apnea are difficult to arouse, which supports a problem in the arousal system (Weider, Sateia, & West, 1991). Most children stop bedwetting when the sleep apnea is treated.

Other biological factors that may contribute to enuresis are reduced bladder capacity (symptoms include urinary frequency, cystitis, constipation), and nocturnal polyuria (greater nighttime than daytime urine production), which should be considered in a physical examination for enuresis (Robson, 2009). In addition, allergies have been mentioned, but there is not enough evidence to consider them significant in the development of enuresis.

Genetic factors appear to be strong contributors to enuresis. When both parents have a history of enuresis, the risk is about 80% for their child to be enuretic; with one parent, it is 44% (significantly higher if it is the father), compared to 15% of children with neither parent with a history of enuresis (APA, 2013; see Campbell et al., 2009). Children with enuresis tend to become dry at about the same age as older relatives who had the problem. The data on heritability are strong but do not take into account intergenerational transmission of toilet training practices.

Emotional–Behavioral Factors

Studies have mixed results regarding psychological problems in children with enuresis, but the majority of children with enuresis do not have emotional or behavioral problems (e.g., APA, 2013; Byrd, Weitzman, Lanphear, & Auinger, 1996; Fritz et al., 2004). In a sample of 10,960 children, Byrd et al. (1996) found that children with enuresis did have more emotional and behavioral problems than children without enuresis, but parents did not perceive a need for help with these problems unless the child was a frequent bedwetter or older. Others have found an increase of depression, academic problems, and poor quality of sleep (Ucer & Gumus, 2014). There is some evidence for an association between attention-deficit/hyperactivity disorder (ADHD) and enuresis (Equit et al., 2014; Yang et al., 2013). Equit et al. (2014) found ADHD prevalence rates of 3.4% in typical continent children, 9.6% in children with nocturnal enuresis, and 36.7% in children with diurnal enuresis. There is a common belief that emotional disturbance is more likely to be associated specifically with secondary enuresis, but research does not support this view (Robson et al., 2005).

Learning Factors

Learning problems appear to be a factor in the etiology of enuresis. Learning theory suggests that habit deficiency, inadequate learning experiences, and inappropriate reinforcement contingencies result in the failure to learn to control the complex urination reflex. There is some support for the role of learning factors in the etiology of enuresis, in that children learn skills at different rates, and emotional and psychosocial factors can interfere with the learning process. Most importantly, treatments based on learning principles have proven to be the most effective long-term intervention for nocturnal enuresis, with success rates of 70–90% (Mellon & McGrath, 2000; Ramakrishnan, 2008).

ASSESSMENT OF NOCTURNAL ENURESIS

We focus on nocturnal enuresis, which is the most common subtype of enuresis; when the term *enuresis* is used, it refers to nocturnal enuresis. We briefly mention treatment for mixed enuresis. The assessment process for nocturnal enuresis follows the Comprehensive Assessment-to-Intervention System (CAIS; see Chapter 2), with a focus on gathering information specifically pertinent to understanding and treating this disorder.

Step 1: Initial Contact

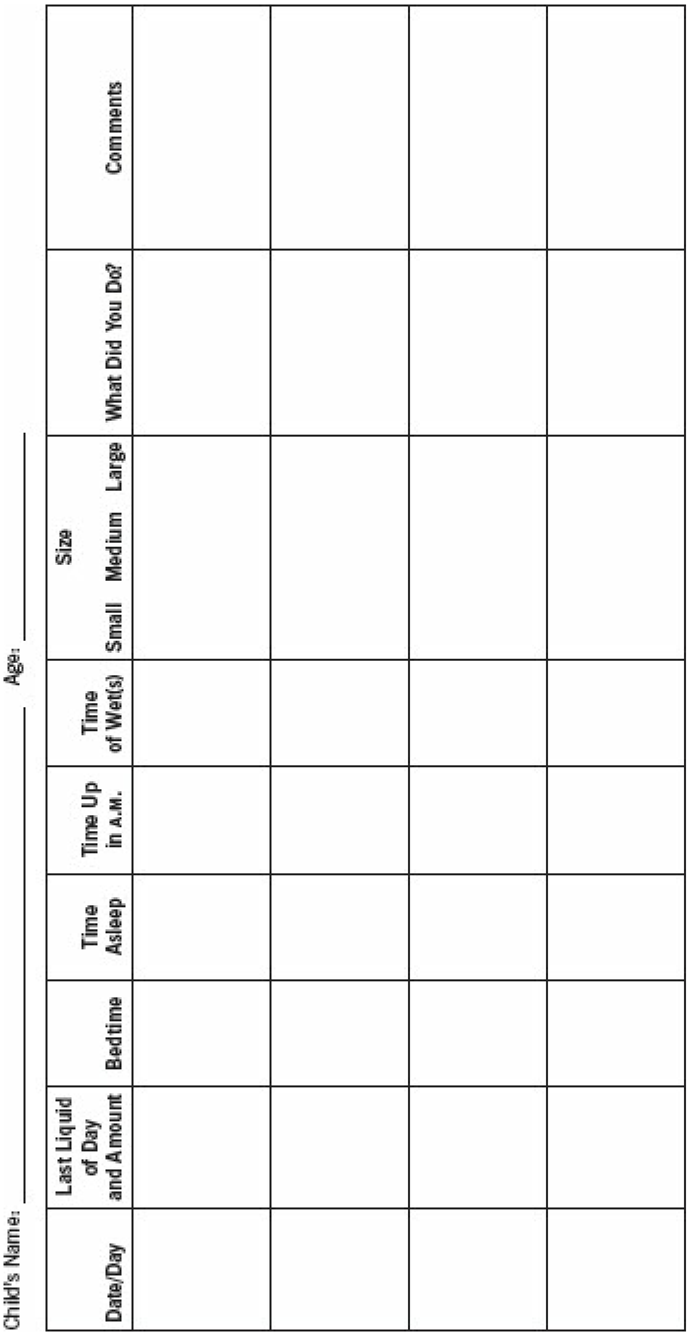
When a parent seeks treatment for a child with enuresis, the clinician should first determine whether there has been a recent medical evaluation of the problem; if not, a referral should be made for such an evaluation. Although the incidence of organic or physiological difficulties, or the use of medications resulting in nighttime urinary incontinence, is low, medical problems must be ruled out before further assessment and treatment take place. A urinalysis and urine culture should be part of the evaluation, since 5% of males and 10% of females have urinary tract infections that require antibiotic treatment prior to bedwetting treatment (Robson, 2009). Cystitis and constipation should also be ruled out, since both can reduce bladder capacity and should be treated before the enuresis.

The clinician should rule out the presence of significant emotional or behavioral problems. This can be done by having parents complete a general questionnaire (e.g., our General Parent Questionnaire; see Appendix B) and screening instruments such as the Child Behavior Checklist (CBCL; Achenbach, 2013; Achenbach & Rescorla, 2001a, 2001b), the Behavior Assessment System for Children, Third Edition (BASC-3; Reynolds & Kamphaus, 2015), or the Eyberg Child Behavior Inventory (ECBI; Eyberg & Pincus, 1999), and the Parenting Stress Index, Fourth Edition (PSI-4; Abidin, 2012).

Parents should also be asked to keep a record of the times the child goes to bed and arises, the number of wet and dry nights, and the time and size of wets during the night. During this baseline period, the child should be taken out of all protective clothing, including diapers, thick underwear, or rubber pants. Parents should check to see whether the child is wet before they go to bed, and, if possible, periodically throughout the night. We have found that a 7-day record is usually sufficient. Sending to parents a Nighttime Wetting Chart (Figure 4.3) on which to keep this information ensures that the appropriate data are obtained. If possible, this information should be reviewed by the clinician prior to the initial interview.

Nighttime Wetting Chart

BASELINE



Child's Name: ______ Age: ______

Date/Day	Last Liquid of Day and Amount	Bedtime	Time Asleep	Time Up in A.M.	Time of Wet(s)	Size			What Did You Do?	Comments
						Small	Medium	Large		

FIGURE 4.3. A chart for recording enuresis baseline data.

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Step 2: Initial Intake Interview

We recommend including the child, regardless of age, in the initial interview with the parents. Treatment of enuresis involves a great deal of cooperation on the child's part, and his or her level of interest in a treatment program must be determined. In addition, children will often share information about the problem that is not known by parents. For example, do they wake up right before or right after they urinate? Do they feel bladder pressure indicating the need to void?

Developmentally, the ability to take a psychological perspective increases with age; thus, the older the child, the more likely it is that treatment will be effective. However, even for a child as young as 5 or 6 years old who would like to stop bedwetting and has a supportive family, treatment has a good chance of being successful.

During the initial interview, the clinician should gather the following information:

1. *Are there other behavioral or developmental problems?* The presence of other difficulties can be determined from the screening instruments. Problems such as oppositional behavior and noncompliance can interfere with treatment of enuresis and should be treated first. The clinician should also be alert to fears of the dark or of the toilet, which may be causing the child to avoid using the toilet at night. If there is indication of psychopathology, then it is recommended that treatment of enuresis be postponed until these problems are further evaluated and possibly treated.

2. *What is the history and current status of the child's urination habits and incontinence?* Questions on the nature of these behaviors should include information on (a) daytime as well as nighttime voiding (frequency, time, and amount of wets); (b) intermittent or daily incontinence (frequency, antecedents, and consequences); (c) primary or secondary status (and, if the child was previously dry, the time and circumstances when wetting began); and (d) age, methods, and circumstances of the initial toilet training process. If the child has never been dry, special attention should be given to whether the child has learned the prerequisite skills. To determine whether there is a potential bladder capacity problem, gather information on the child's ability to retain urine after he or she has the urge to void during the day (e.g., "When you have the urge to go to the bathroom, can you hold it for 5–10 minutes, or do you have to rush to the bathroom?"). In addition, constipation can place pressure on the bladder, so inquire about the number and quantity of bowel movements the child has in a week. Urinary tract infections can also cause frequent urination, so a query should be made about the history of such infections.

3. *Quality of sleep?* Does the child sleep through the night? Is the child difficult to arouse (a "deep" sleeper)? Is there snoring at night?

4. *Is there a family history of incontinence?* A family history of enuresis is important given the increased frequency of enuresis among children when other family members have been enuretic. A positive family history does not preclude treatment, but it may affect the parents' attitude toward treatment (e.g., are they overindulgent or exasperated?) and the methods previously used to deal with the problem.

5. *What is the environmental context of the problem?* Environmental circumstances give information on potential contributors to bedwetting and possible problems in carrying out a program. These include (a) the type, amount, and time of daily fluid intake; (b) diet; (c) recent, unexpected, or ongoing stressful life events; (d) lack of or inconsistent bedtime rituals; (e) sleeping arrangements that make getting to the toilet difficult; (f) proximity to the bathroom; (g) temperature in the house; and (h) what the child wears to bed.

6. *How have the parents handled the problem?* Information on previous attempts at treatment should be gathered in great detail. The usefulness of previously attempted techniques, as well as why some techniques might not have been successful, should also be explored. The parents' attitudes about the toileting process, conflict over how it should be handled, and their willingness to follow through on a treatment program should be assessed at this time.

7. *Why are they seeking help now?* Determining why the parents are seeking help now versus some other time provides information on their attitudes toward the problem and potential compliance with treatment. Parents are a critical factor in the success or failure of a treatment program for enuresis; their attitudes, beliefs, and acceptance of a treatment approach must be carefully considered before beginning.

8. *How does the child feel about the problem?* The child's interest in resolving the problem must be assessed; again, his or her cooperation is as crucial as the parents' in successful treatment. It is important to learn from the child the following: (a) "What are the bad things about bedwetting?"; (b) "What are the good things about being dry?"; (c) "What difference would being dry make to you?"; (d) "What do you do about it when you wet the bed?"; (e) "What do your parents do when you wet the bed?"; and (f) "What would change if you become dry every night?" Questions to determine resistance to change include "Could you see any problems in being dry?"; "What might be good about bedwetting?"; and "Do you want to stop wetting the bed?"

Step 3: Observation of Behavior

Observation of the parent–child interaction during the interview is useful in determining the support that the parents will give to the child during treatment. In addition, observing how the child reacts to the discussion can give information on the child's interest in treatment and/or what may be needed to elicit his or her cooperation with the treatment plan.

Step 4: Further Assessment

Further psychological assessment is only necessary if other problems become evident during the assessment process.

Step 5: Collaboration with Other Health Care Professionals

If a medical evaluation was not done before the initial interview with the family, it should be done to rule out any organic problem or medication that could be causing the problem.

Step 6: Communication of Findings and Treatment Recommendations

Following the assessment session(s), it is important for the clinician to share information with the parents and the child about how enuresis fits into the developmental process. This is particularly important, because the parents' and child's trust in the clinician and cooperation in the treatment process will depend on their understanding of the problem and the treatment process. The nature and possible etiology of the enuresis should be discussed, and a rationale for the treatment recommendations should be given. They should also be aware that treatment is going to involve their time and effort and is likely to take up to 3 months to be successful. This process often involves explanations of the value of previously attempted methods and why they did not work. In helping the parents and child determine whether to proceed to treatment, they should be made aware of spontaneous remission rates, what could lead to the child's lack of success in staying dry, the possibility that relapses can occur, and the strategies that can be used if this happens.

TREATMENT OF NOCTURNAL ENURESIS

The majority of well-controlled psychological interventions began in the late 1960s, with the strongest empirical support for learning-based methods over other types of treatment (Glazener, Evans, & Peto, 2005; Ramakrishnan, 2008). Most parents initially seek help with enuresis from their child's pediatrician. Although recent guidelines support the effectiveness of the urine alarm as the first line of treatment, many physicians continue to use medication to treat enuresis (American Academy of Child and Adolescent Psychiatry, 2009; Kaneko, 2012; Traisman, 2015). Thus, by the time parents seek help from other health professionals, the family has often experienced repeated failure and frustration with trying to stop the child's bedwetting. We discuss in this section the various treatment approaches for nocturnal enuresis, with an emphasis on behavioral treatments. For reviews of treatment approaches, see Campbell et al. (2009), Glazener et al. (2005), and Ramakrishnan (2008).

Urine Alarm

The *urine alarm* or bell-and-pad method of treating enuresis was first described in the literature as early as 1904 (Pfaundler, 1904), but it became popular following the publication of an article by Mowrer and Mowrer (1938). Current models use metal snaps that are attached to the crotch of the child's underpants and connected to a small wristwatch-type apparatus. This can be worn on the child's arm or attached to the shoulder of his or her pajamas. Urine (2 or 3 drops), which contains salt and is an electrolyte, completes an electrical circuit between the metal snaps, activating an alarm that continues to sound until manually turned off. Various types of alarms are available, but we recommend one with a wire that runs from the sensor to the alarm that is placed on the wrist or shoulder or a wireless one, with a sensor that sends a wireless signal to a remote device that detects the signal and starts the alarm. Figure 4.4 illustrates this standard device, which can be obtained from Nytone Medical Products, Inc., *www.nytone.com*, or from DRI Excel by Anzacare, *www.dri-sleeper.com*; the standard product is around $75, and the remote one is $152.

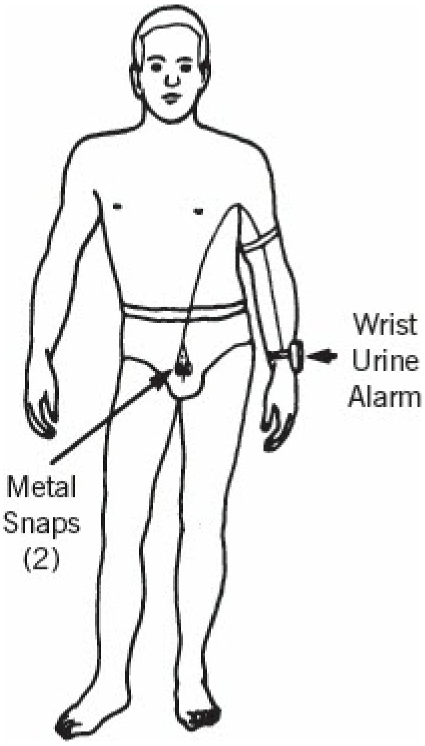


FIGURE 4.4. Wrist urine alarm for treatment of enuresis.

While the exact mechanism for the success of the alarm is not known, Lovibond (1964) suggested that the learning process is due to an avoidance learning paradigm. The child learns to avoid the aversive alarm by retaining urine and sleeping through the night, or by awakening and using the bathroom before the alarm sounds. Others suggest that the alarm arouses the child, which increases his or her ability to recognize and control the urge to void, and, over time, increases the bladder capacity (Glazener et al., 2005; Traisman, 2015). Other factors, such as positive reinforcement from the parents, may also play an important role in treatment.

The average success rate for the alarm system is 70% (Glazener et al., 2005; Mellon & McGrath, 2000). Although the relapse rate within 6 months of treatment is reported to be as high as 41%, resuming treatment for a shorter length of time results in successful reconditioning for over 60% of these cases (Christophersen & Friman, 2010). Several studies have shown that the relapse rate can be significantly reduced by employing overlearning, such as increasing the liquid intake prior to bedtime (see Campbell et al., 2009), and by using the alarm on an intermittent schedule after dryness has been achieved (Christopherson & VanScoyoc, 2013). Moreover, increasing the volume of the alarm appears to contribute to less wetting among children who are slow to respond to treatment, which supports an arousal dysfunction.

Given the empirically demonstrated effectiveness of the urine alarm system, its ease of implementation, and its relatively low cost, we begin almost all treatment for enuresis with this method.

Arousal Training

Arousal training (van Londen, 1989) uses the urine alarm, but instead of focusing on dry nights, it reinforces the child for getting up and going to the bathroom. There is no contact with a professional needed in this program; rather, parents use the written material included with the alarm. To be rewarded, the child must turn off the alarm within 3 minutes after it has rung, go to the bathroom to urinate, return to bed, and reset the alarm. Parents are instructed to reward the child with two stickers if he or she follows the proper procedure when the alarm goes off, and to take one sticker away if the child does not (response cost). In a study of 113 children between ages 6 and 12 years, after 20 weeks of using this program, van Londen, van Londen-Barentsen, van Son, and Mulder (1993) found that the success rate was 98%, the relapse rate was 28%, and after 2½ years the success rate was 92%. It would be good to have more studies of this method, but it can easily be incorporated into a treatment program that reinforces dry nights. Responding to the alarm and going to the bathroom can be rewarded or punished with response cost, whereas a dry night can be further reinforced and wet nights ignored.

Bladder Retention Training and Sphincter Control Exercises

Some children with enuresis have been found to have a small *functional bladder capacity* (e.g., Kaneko, 2012), which refers to the ability of the bladder to retain a given volume of urine without producing an urge to void. Children who have a small functional bladder capacity tend to have increased frequency of daytime urination, as well as a sense of urgency when they need to urinate. Increasing the amount of urine in the bladder before getting the urge to urinate is the goal of urine retention and sphincter control techniques (Van Hoeck et al., 2007). Although increasing functional bladder capacity alone has not been found sufficient or necessary to eliminate enuresis for most children (Bath, Morton, Uing, & Williams, 1996), bladder retention training may be helpful if the frequency of wets or awakenings during the night does not decrease as expected.

To help the child increase the amount of urine in the bladder before getting the urge to urinate, he or she is given increased liquids (no more than 8–16 ounces per hour) during the day; when the urge to urinate occurs, the child is encouraged to refrain from urinating as long as possible, usually up to 30 to 60 minutes (Christophersen & Friman, 2010). *Kegel* exercises have also been used to strengthen the sphincter muscles and therefore increase bladder capacity. This involves starting and stopping the stream of urine when voiding (wet practice) and exercising the muscles used to do so (dry practice). A study using Kegel exercises that involved dry contractions of the pelvic muscles had 79 children with diurnal enuresis hold the contraction 5–10 seconds, relax 5 seconds, and repeat this exercise at least 10 times on three separate occasions during the day (Schneider, King, & Surwitt, 1994). They found that these exercises eliminated diurnal enuresis for about 60% of children, and that for 34% of the children with mixed enuresis, nocturnal enuresis was eliminated.

Dry-Bed Training

Dry-bed training (DBT), a multicomponent behavioral program, includes the urine alarm and was developed to overcome the high relapse rates (40%) as a result of use of the urine alarm alone (Azrin, Sneed, & Foxx, 1974). DBT incorporates cognitive and operant techniques such as (1) getting the child to get out of bed and go rapidly to the toilet in response to urge signals; (2) sphincter strengthening; (3) increasing bladder capacity; (4) using tangible and social reinforcements, as well as encouragement to take responsibility for keeping dry at night; and (5) remaking the bed. Reports indicate success rates of 73–85% for initial cessation and less than 20% relapse rate within 6 months as compared to the urine alarm's 66–78% initial cessation rate and relapse frequencies of 40% (Mellon & McGrath, 2000). It appears that it is the accumulative effect of the various components of DBT that makes it more successful than any specific component. Clinically, DBT has not been widely used, probably because of its multifaceted nature and the time needed to teach parents to implement it.

To make it more user-friendly, Griffiths, Meldrum, and McWilliam (1982) made a DBT manual for parents, and Hunt and Adams (1989) tested it along with an illustrative videotape. Families were given the manual plus the videotape to use with only remote telephone supervision. This self-help approach resulted in an 80% initial remission of enuresis and 25% relapse rate, with an average treatment of 7 weeks (range from 2 to 14 weeks)! Another study compared similar self-help manuals and videotapes for DBT, the urine alarm only, plus a control group that included an initial intake and two follow-up appointments (Nawaz, Griffiths, & Tappin, 2002). Although the sample size was small (36 children ages 7–12 years), 58% in the DBT group were completely dry 6 months after cessation of training, compared with 17% for the urine alarm training. This method was carried out in a primary care office and could be used by a variety of health care professionals in community clinics, as well as telemedicine-style consultations.

A similar method, full-spectrum training, uses the urine alarm, retention control training with monetary rewards, cleanliness training, self-monitoring of wet and dry nights, and a graduated overlearning procedure (Mellon & Houts, 1998), with success rates reported to be about 80% within 8–16 weeks. Although DBT and full-spectrum training are successful, there is limited empirical evidence on the specific components of the training programs (Glazener et al., 2005). However, if the clinician carefully reviews each child’s symptoms and the parents’ ability to carry out a training program, an individually designed treatment program that includes the alarm in combination with other methods can be successful. Christopherson and VanScoyoc (2013) provide a summary of procedures for DBT.

Medication

Although pharmacological treatments are more effective than no treatment, they do not have the long-term benefits of behavioral interventions and have a number of potentially serious side effects (Fritz et al., 2004). Desmopressin acetate (DDAVP) is the most frequently used medication for enuresis but imipramine (Tofranil) and oxybutynin also have been prescribed (Glazener, Evans, & Peto, 2003).

Desmopressin is a synthetic form of the hormone vasopressin, which stimulates the kidneys to concentrate urine and decreases the volume of urine during the night. There are currently three forms of desmopressin: intranasal, a tablet, and a fast-acting formula that can be placed under the tongue. It is important to note that relapse rates are very high (80–100%) when desmopressin is discontinued (Thiedke, 2003). In 2007, the U.S. Food and Drug Administration (FDA) removed approval for the intranasal form for enuresis, citing increased risk for severe hyponatremia (a reduction of sodium level in the blood) and seizures, with possible death. Although safer, the FDA indicated that both the tablet form and the fast-acting form of desmopressin should be stopped during acute illnesses (vomiting and diarrhea, fever, the flu or severe cold) that could lead to fluid or electrolyte imbalance and should always be used with caution in patients at risk for water intoxication and hyponatremia. Fluids should be restricted 1 hour before to 8 hours after taking desmopressin. Despite these warnings, the medication is often prescribed when a child needs to remain dry for relatively short periods of time, such as overnight visits or camp.

Imipramine (Tofranil), a tricyclic commonly used for depression, appears to relax the detrusor muscle, which allows an increase in bladder volume before the reflex contractions induce voiding (Robson, 2009). It is approved by the FDA for children over 6 years old. Studies indicate some success in the first week of treatment with imipramine, but there is almost always a relapse when the medication is stopped (Ramakrishnan, 2008). This finding and the reports of the negative side effects of drowsiness, lethargy, agitation, depression, sleep disturbance, and constipation (plus an overdose can lead to seizure and cardiac arrest), make this drug's value for enuresis very limited.

Oxybutynin is an anticholinergic medication that is used to reduce spasms of the bladder and increase functional bladder capacity. Other literature, previously reviewed, indicates that increased bladder capacity alone is not enough to eliminate enuresis; thus, this drug should not be used unless there is medical evidence of spasms of the bladder. The side effects include constipation, dry eye and mouth, fatigue, heat intolerance, and mood change. Indeed, the sparse research on oxybutynin indicates limited effectiveness, although it is often used in combination with desmopressin (Robson, 2009).

TREATMENT OF MIXED ENURESIS

Fielding (1980) notes that children with both diurnal and nocturnal enuresis may respond more slowly to treatment of nocturnal enuresis and relapse more quickly once continence is achieved. In the absence of a physical disorder or significant emotional–behavioral problems or stress, daytime wetting is most often the result of poor toileting habits. We suggest first dealing with the daytime wetting by establishing good toileting habits, which include (1) recording data on when the child wets, and having him or her sit on the toilet for 5 minutes at those times; (2) encouraging the child to empty the bladder fully; (3) cleanliness training (including cleaning him- or herself, clothes, and the floor, if wet) and having the child sit on the toilet for 5 minutes after each wetting; (4) positive practice, such as having the child go to the bathroom from different parts of the house, yard, and neighborhood; (5) charting progress and providing rewards for dry days; and (6) supporting parents and the child through regular clinician contact, however brief. Friman and Vollmer (1995) have used the urine alarm during the day when a child has trouble recognizing a full bladder or waits too long before going to the bathroom, and we have also found this helpful for daytime wetting. Sphincter control and urine retention exercises can be added if necessary to increase functional bladder capacity and the ability to sense the urge to urinate, as well as to strengthen the sphincter muscle.

Once continence is established, overlearning (increased fluids) is added, and the reinforcement system is gradually faded by increasing the number of dry days necessary for rewards. When this is accomplished, if the child continues to wet the bed and wants a treatment program for the bedwetting, the urine alarm system can be used. The parents and child should be told that there may be some regression during the day but that with continuation of good toilet habits, daytime wets should decrease.

TREATMENT PROTOCOL FOR NOCTURNAL ENURESIS

We describe in this section the specific components of a behavioral treatment program used in our clinic. Our approach is based on information derived from the empirical literature. It involves a 1-hour initial interview and the provision of a urine alarm (or it can be purchased by parents, but availability is important), followed by biweekly phone contacts and letters to the child for a period of up to 3 months.

Sharing Information

The importance of sharing information and giving specific instructions in carrying out treatment programs for enuresis has been emphasized repeatedly in the literature (Christophersen & VanScoyoc, 2013; Robson, 2009). Information on the frequency of enuresis and the general stages of learning to control the urine reflex should be shared with the parents and child in simple, understandable language. Most children are not aware of the prevalence of enuresis, and they and their parents find it reassuring that they are not the “only ones” with this problem.

The use of a diagram of the bladder, such as the one in Figure 4.5, helps both children and parents understand the process. The clinician should begin by describing how urine from the kidney fills the bladder, which functions like a storage bag. When the bladder expands to a certain point, the muscles contract to discharge urine into the tube at the lower end of the bladder, called the *urethra.* The sphincter muscles close the entrance to the urethra. When the bladder is full, it becomes distended; the internal sphincter muscle then opens, and this is the signal that one has to go to the bathroom. Depending on the age of the child, one can give as brief or as long a description of this process as necessary. The point is to give the child a picture of what he or she is trying to learn to do—that is, tune into a full bladder and tighten the outer sphincter muscle until he or she wakes up and can get to the bathroom. Once children learn how to do this, they are usually able to sleep for longer periods of time without needing to use the bathroom. Children who wet frequently (eight or more times) during the day and many times during the night should be warned that it may take them a little longer to learn to stay dry.

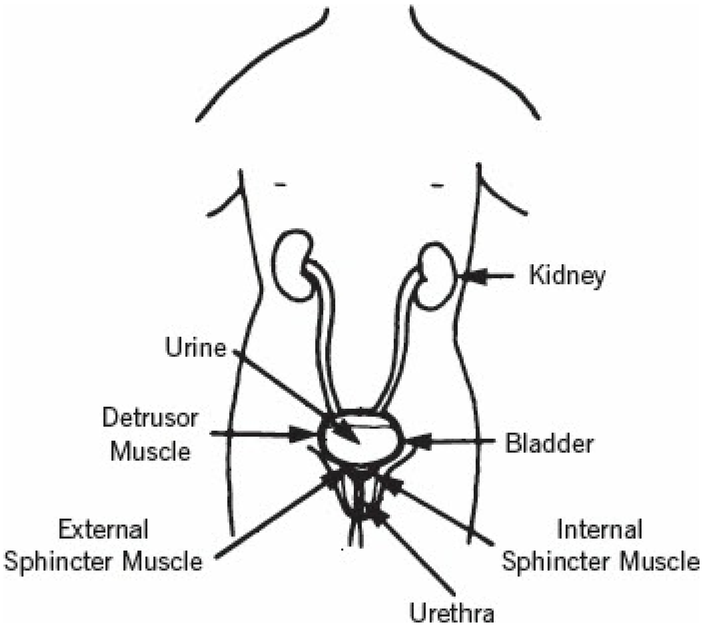


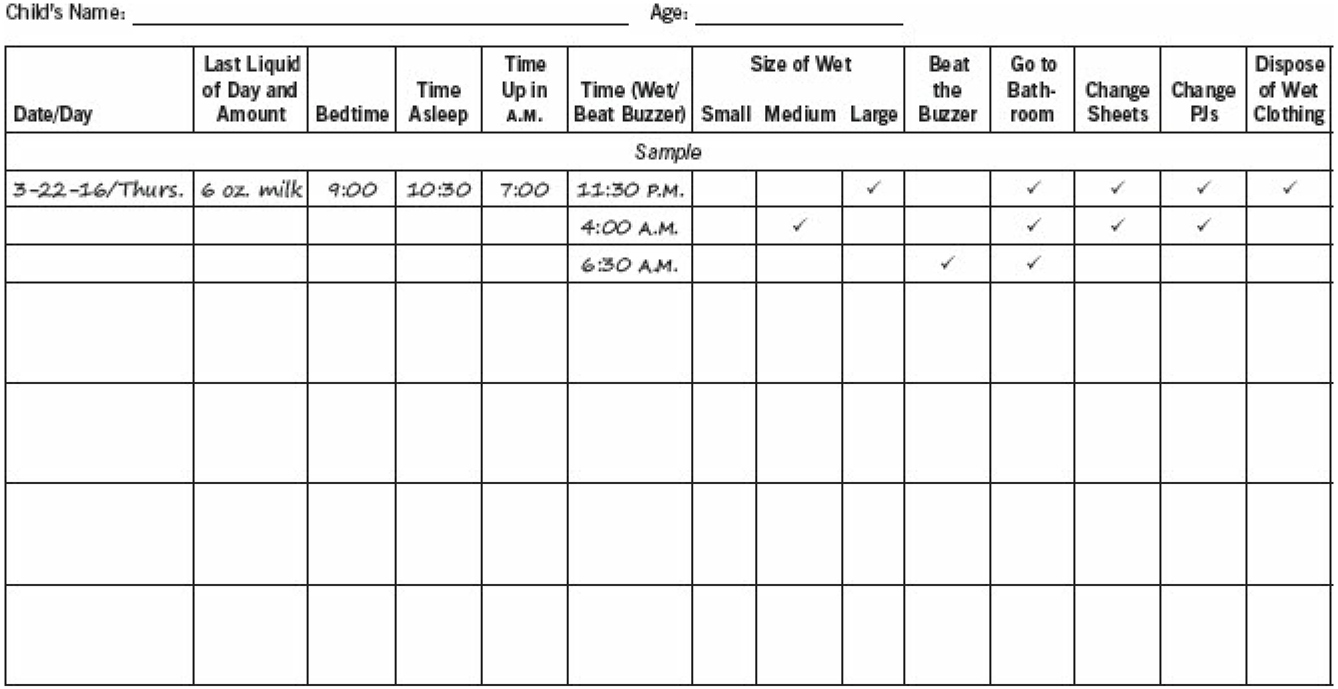
FIGURE 4.5. The urinary tract system.

Intervention with the Child/Changing the Consequences of the Behavior

Urine Alarm

The urine alarm system can be described as a "helper" that wakes the child up as soon as he or she starts to wet. The child's goal is to "beat the buzzer"—that is, to get up before it goes off or to sleep dry through the night. The alarm should be demonstrated on the child or a parent during the first treatment session. The snaps can be put on the outer clothing, and a drop of water placed on the cloth near the snaps will set off the alarm. At night, the alarm should be placed on the child's wrist or pinned to the pajama shoulder, with the wires running up the child's arm, into the sleeve of the shirt, and down into the crotch of the pants; the wire can be shortened by taping a length of it together with adhesive tape. This is an important step, so there is no chance that the child will become caught up in the wire or the leads will be disconnected. The alarm can be unreliable at times, going off when it should not or not going off when it should, so it is important to keep backup alarms in the clinic. The child should be encouraged to decrease fluids 1–2 hours before bed and go to the bathroom immediately before bed.

The procedure for using the alarm is as follows. Parents go to the child's room when the alarm rings, make sure the child is awake, and prompt him or her to go to the bathroom. The child is instructed to empty the bladder completely, wash him- or herself, change pajamas, change the bed, put the soiled linen in the proper container, and reconnect the alarm. Data are then recorded, and the child is given two stickers for following this procedure (Figure 4.6). When the alarm rings but the child fails to get out of bed, does not go to the bathroom, or does not reset the alarm, the parents should have the child give back one sticker. Parents should be instructed to do this in a calm, matter-of-fact way, without excessive praise or disappointment.



Nighttime Wetting Chart

TREATMENT

Child's Name: ______________________ Age: __________

Date/Day	Last Liquid of Day and Amount	Bedtime	Time Asleep	Time Up in A.M.	Time (Wet/ Beat Buzzer)	Size of Wet			Beat the Buzzer	Go to Bath-room	Change Sheets	Change PJs	Dispose of Wet Clothing
						Small	Medium	Large					
Sample													
3-22-16/Thurs.	6 oz. milk	9:00	10:30	7:00	11:30 P.M.			✓		✓	✓	✓	✓
					4:00 A.M.		✓			✓	✓	✓	
					6:30 A.M.				✓	✓			

FIGURE 4.6. A chart for recording enuresis treatment data.

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The next step is to describe the typical stages of treatment. The child should initially expect to wet with the same frequency, but the wet spots should become smaller. Then the frequency of the wets will decrease, with the first wet occurring later in the night. Next, the child will start to “beat the buzzer” and awaken to void before actually wetting the bed. Soon the child will be waking without the alarm with greater frequency and will no longer wet the bed. Finally, the child can expect to sleep longer and longer between awakenings, and will eventually sleep through the night, without needing to void until morning. The time it takes to go through this process can vary from 1 to 3 months. The clinician should carefully monitor the data to determine whether the wet spots are getting smaller and the number of wets are decreasing at an acceptable rate. These data, along with information gathered in the assessment process, alert the clinician to potential problems and guide the treatment program. For example, urine retention or sphincter control exercises can be added for the child who exhibits excessive frequency or urgency. The goal is to get 14 consecutive dry nights, at which time an overlearning procedure is instituted.

Overlearning Procedure

After 14 consecutive dry nights, an overlearning procedure is implemented, in which the child drinks 6–8 ounces of his or her favorite liquid (avoid drinks that are diuretic, such as cola and tea) before bed. The child and parents should be told that this is an important step to ensure that the child has fully learned to tighten the sphincter muscle, and to get up if necessary to go to the bathroom. They should be warned that there may be some accidents, but that this is to be expected at this stage of the training. This phase of the treatment should continue until there are 14 consecutive dry nights.

Intermittent Use of the Alarm

The next phase of treatment is to use the alarm on an intermittent schedule, to further strengthen the newly learned behavior of sleeping through the night dry. The child should be told that on some nights the parents will disconnect the alarm after he or she has gone to sleep. Because the child will not know when the alarm is connected, this will help him or her to learn to sleep through the night without the alarm. The parents should be asked to disconnect the alarm two nights during the first week, then to increase the number of nights after each completely dry week until the alarm is no longer connected. The alarm should be removed at this time. The parents and child should be reminded that relapses are not unusual, but if wetting occurs more than once a month for 2 months, they should use the alarm again, until the child has 30 consecutive dry nights. We find that with the use of the overlearning procedure and the intermittent alarm schedule, relapses are rare; when they do occur, reinstituting the alarm quickly resolves the problem.

Supporting the child through the treatment process is important. This can be done by sending an encouraging letter to the child, as in the following example:

> Dear John,
>
> Thank you for being so prompt in sending your chart to me. Wow! You must be very pleased with yourself! Four dry nights in one week, and on the other nights the wet spots were small. Have you noticed that you are also sleeping longer before you "beat the buzzer" or wet? That is just what we want to happen.
>
> Keep up the good work. After three weeks of using the buzzer, you are already having dry nights, but remember to tell yourself to "beat the buzzer" before you fall asleep. Your mother said that you were doing a good job of remembering to start and stop your stream of urine when you have to go to the bathroom. Great!
>
> I look forward to seeing your chart this week. Enjoy your dry nights!
>
> Sincerely,
> Dr. Schroeder

Intervention with the Parents

The parents' motivation to implement the treatment program is critical for success. They will need instructions on how to keep data, help in setting up a reinforcement system, and regular feedback. They also should be given addressed envelopes to mail their data charts (see Figure 4.6) or e-mail them to the clinic every week. The clinician should review the data, observe the course of treatment, and call the parents, if necessary. A phone call or session scheduled at least every 2 weeks is important to support the parents and answer any questions.

CASE EXAMPLE: ENURESIS

Step 1: Initial Contact

Mrs. O'Dell, the single mother of 7-year-old Andrew, called the clinic regarding treatment of her son's bedwetting. Andrew had been seen in our clinic at age 5 regarding readiness for school. An evaluation at that time indicated a verbally bright child with poor visual–motor organizational skills. A referral to an occupational therapist resulted in a diagnosis of mild *dyspraxia* (i.e., difficulty in motor planning), followed by a course of treatment with the occupational therapist. Andrew was currently doing quite well in second grade.

In a recent physical examination, the physician indicated that there was no organic basis for the bedwetting. The physician suggested that Andrew sleep on his soiled sheets for a minimum of 2 weeks before washing. When the child indicated that he wanted to have some friends spend the night, the physician encouraged him to do this and to be sure the friends slept in the same bed with him. Neither the mother nor the child was pleased with this advice, and the mother decided that they would seek help from a psychologist.

To rule out the presence of significant emotional or behavioral problems, the mother was asked to complete the General Parent Questionnaire, the CBCL, the ECBI, and the PSI-4. She was also asked to complete a Nighttime Wetting Chart (Figure 4.3) for 7 days prior to their appointment.

Step 2: Initial Intake Interview

Mrs. O'Dell and Andrew came in together for the initial interview. A review of the parent assessment instruments indicated that Mrs. O'Dell was a licensed practical nurse who worked the day shift at a local nursing home. She had been divorced for 3 years. Andrew was described as a well-adjusted child who had a number of close friends, was doing well in school, and preferred quiet activities (e.g., reading). Mrs. O'Dell confirmed the information on the rating scales by stating that she was quite pleased with Andrew and did not feel that the bedwetting was a problem for her. The request for treatment had come because Andrew wanted to spend the night with friends, and go to a weeklong overnight camp in the summer.

Bladder and bowel training during the day was started at 2½ years and completed at age 4. Andrew was initially bowel trained and then bladder trained. Andrew reported that he still had accidents (about one a month) during the day when he delayed going to the bathroom because he was playing. The only time he had ever been dry at night was when he had spent the night at his grandmother's house 6 months earlier.

To the mother's knowledge, no one in her own or Andrew's father's family had a history of enuresis. There had been no major changes for this family in the previous year, and the atmosphere in the home was described as calm, with regular daily routines. A younger sister, age 4, was already sleeping dry through the night.

Step 3: Observation of Behavior

The Nighttime Wetting Chart indicated that Andrew went to bed at about 8:30 P.M., had his first wet at 11:00–11:30 P.M., wet again between 3:00 and 5:30 A.M., and got up at 7:00 A.M. The size of the wets varied from medium to large. The record also indicated that Andrew would often put a blanket over the wet spot; if the wet was too large, he would change his clothes and spend the rest of the night in his mother's bed. Andrew was attentive during the interview, and although he was initially reticent, he soon readily contributed information. Mrs. O'Dell was respectful of his input and often deferred to him in answering questions.

Step 4: Further Assessment

No further assessment was indicated at this time.

Step 5: Collaboration with Other Health Care Professionals

The medical examination was done prior to the initial contact.

Step 6: Communication of Findings and Treatment Recommendations

The findings were summarized for Andrew and his mother, and the rationale for the specific treatment recommendations was given. They were told that wetting the bed seemed to be an isolated problem for Andrew. He was well accepted by his family, he had friends and a variety of interests, and he was doing well in school; in short, all the information indicated that he was a well-adjusted child. Although Mrs. O'Dell did not consider the bedwetting a problem for her and, in fact, had done nothing about it, she was supportive of Andrew and agreed to help with the program. Andrew was clearly interested in stopping the bedwetting for legitimate reasons. Next, information was shared on bladder functioning and enuresis, and the urine alarm system was demonstrated, which Andrew enjoyed; he was enthusiastic about starting the program.

Nighttime wetting data forms and stamped envelopes were given to the mother and child to complete and return on a weekly basis. Phone contacts were set for 1 week, then every 2 weeks.

Given that Andrew had periodic difficulty making it to the bathroom during the day, he was instructed to start and stop the flow of urine three to five times each time he urinated. The purpose of this was to strengthen his sphincter muscle. He was also instructed to increase fluids during the day, so he would have more opportunities to practice sphincter control. Bladder retention training was considered, but Andrew's mother felt that he was already waiting too long before going to the bathroom.

Course of Treatment

In the first week, Andrew beat the buzzer one night, wet two times a night for three nights, and wet once on three nights. The size of the wets was medium to large. During the second week, the size of the wets was small to medium, and the time of wetting was later. He beat the buzzer on two nights, wet two times on two nights, and had three nights with one wet. In the third week, he slept dry through one night, beat the buzzer two nights, and had one small wet on each of the remaining four nights. The course of treatment was unremarkable, and within 8 weeks Andrew had 14 consecutive dry nights. Overlearning and later intermittent use of the alarm were then instituted. After a period of slight regression, Andrew had 30 days dry, 4 months from the start of treatment. He was delighted and had already begun making plans for summer camp!

ENCOPRESIS

Description and Prevalence

Encopresis[1] is the term used for defecating in the pants or other inappropriate places (in the absence of medication effects or any organic pathology other than constipation) at least once a month for a minimum of 3 months in a child at least 4 years of age or the developmental equivalent (APA, 2013). DSM-5 lists two subtypes of encopresis. The first of these is *with constipation and overflow incontinence*. Constipation is the essential feature of this subtype, which also includes poorly formed feces, continuous leakage that occurs during the day or at night, and only small amounts of feces passed during toileting. In encopresis *without constipation and overflow incontinence*, there is no constipation, feces are normal in form and consistency, and soiling is intermittent. A distinction should also be made between children who have never achieved appropriate bowel control (*primary encopresis*) and children who develop encopresis after a period of appropriate bowel control (*secondary encopresis*) (APA, 2013). Encopresis is thus a heterogeneous problem, and appropriate treatment depends on a careful analysis of the problem for the individual child.

Estimates of encopresis range from 1.5–7.5% of children ages 6–12, with encopresis four to five times more common in boys than in girls (Har & Croffie, 2010). A review of 18 international studies of children ages 0–18 years in the general population found the prevalence of *constipation,* defined as defecation frequency of less than three times/week, varied from 0.7 to 29.6% (van den Berg, Benninga, & Di Lorenzo, 2006). Constipation with and without overflow accounts for 3% of all general pediatric visits and 25% of all pediatric gastroenterology visits (Loening-Baucke, 1998; Rasquin et al., 2006). It is estimated that 80–95% of children treated for encopresis have chronic constipation; it typically develops at the time of toilet training or when the child enters school (Di Lorenzo & Benninga, 2004; Har & Croffie, 2010). It is not surprising that approximately 25% of children with encopresis are also enuretic given the pressure that an impacted colon can put on the bladder (Di Lorenzo & Benninga, 2004). Children with encopresis are found at all socioeconomic and intellectual levels (Akça, Aysev, & Aycan, 2011; Har & Croffie, 2010).

Etiology

Biological Factors

By definition, encopresis is functional in nature; however, several organic problems can cause fecal incontinence. For example, structural anomalies or diseases of the bowel or sphincters (obstructing lesions or tumors), as well as diseases of the nervous system (myelomeningocele, spina bifida), can cause fecal incontinence. Hirschsprung's disease, the most common cause of lower intestinal obstruction in neonates, results from an absence of both the ganglion cells and the normal peristaltic waves in one segment of the bowel. Severe cases are usually detected shortly after birth and are corrected surgically by removing the portion of the bowel that is not functional and reconnecting the functional parts of the bowel. Some milder cases may not be discovered until much later. Even after surgery, up to 50% of these children are reported to have fecal incontinence (Catto-Smith, Coffey, Nolan, & Hutson, 1995) and require help in managing it. Other organic problems can result from dietary factors, allergic reactions to food, and inflammatory bowel diseases such as Crohn's disease and ulcerative colitis (Di Lorenzo & Benninga, 2004).

Constipation is defined as painful bowel movements or hard stools that are passed less than every 3 days. In chronic constipation, as stools are retained, the walls of the intestine stretch, causing reduced rectal tone and less urge to defecate. Overflow incontinence occurs when new soft stool leaks around the hard mass of retained stool into the underwear. The child is usually unaware of the passing of the smelly stools, which can be thick and sticky or dry and flaky (National Institute for Health and Care Excellence [NICE], 2010). Overflow incontinence usually occurs during the day, but if the child is severely impacted, it can occur at night (Di Lorenzo & Benninga, 2004).

Constipation can result from many factors, including stool-withholding behavior due to previously painful bowel movements, diets high in constipating foods (e.g., dairy products) or low in fiber foods, dietary changes, reduced fluid intake, lack of exercise, constipating medications (e.g., seizure medications, cough medicines), and a family history of constipation. Other contributing factors may be a chaotic home environment with inconsistent daily routines, toilet-related fears, aversion to unfamiliar bathrooms, and poor toilet training/habits.

A study comparing the *defecation dynamics* (coordination of the reflexes and voluntary efforts necessary for stool expulsion) of healthy and chronically constipated children revealed that 46% of the chronically constipated children contracted instead of relaxed the external sphincter when they attempted to defecate, resulting in unproductive straining (Loening-Baucke, Cruikshank, & Savage, 1987). Other researchers have found similar rates of this paradoxical constriction and indicate that it likely develops from stool-withholding behaviors (e.g., van der Plas et al., 1996).

Failure to correct functional constipation can lead to a number of problems, including rectal prolapse, anal fissure, urinary tract infections, loss of weight, and psychological problems due to social rejection, punishment, and the stress of dealing with the pain (Auth, Vora, Farrelly, & Baillie, 2012). If not treated properly, one-fourth of the children with functional constipation may have continued problems with constipation as adults (Bongers, van Wijk, Reitsma, & Benninga, 2010).

Psychosocial Factors

Historically, the psychiatric literature has viewed encopresis as a symptom of severe emotional problems, with psychological conflict as the primary catalyst for the onset of the problem (Halpern, 1977). DSM-5, however, does not report comorbid behavior problems for encopresis, but it does indicate that the child's well-being is impacted by parental, peer, and social response to the soiling (APA, 2013). Although children with encopresis generally have more behavioral, emotional, and social problems than children in the typical population, these problems are not usually clinically significant, and most emotionally–behaviorally disturbed children are not encopretic (Young, Brennen, Baker, & Baker, 1995). Moreover, it is important to note that successful treatment typically results in improvement in various behavioral–emotional problems. A few studies, however, have revealed that a subgroup of children with encopresis (between 15 and 20% of the children studied) have more extreme behavior problems, including disruptive behavior, anxiety, attention problems, poorer academic performance, and social problems (Akça et al., 2011; Cox, Morris, Borowitz, & Sutphen, 2002; Joinson, Heron, Butler, von Gontard, & Avon Longitudinal Study of Parents and Children Study Team, 2006). There are reports that family turmoil, conflict, and parental attitudes play a significant role in the etiology of encopresis, but these results may also be due to the stress of dealing with the soiling (Akça et al., 2011; Silverman et al., 2015). Others report that a specific stressful event (e.g., loss of a parent, birth of a sibling, or a hospitalization) may be associated with the onset of soiling (Butler, 2008). Encopresis also has been described as a "red flag" for sexual abuse, but Mellon, Whiteside, and Friedrich (2006) found that children who were sexually abused had comparable rates of encopresis (10.3%) to those of children with externalizing behavior problems and no sexual abuse (10.5%).

Although it is not surprising that emotional and behavioral problems may play a part in encopresis and that some children with encopresis exhibit significant problems, psychopathology alone cannot account for the etiology of encopresis. It is, however, important to understand the part that child and family problems can play in the onset and successful treatment of this disorder.

ASSESSMENT OF ENCOPRESIS

The assessment process presented here follows the CAIS (see Chapter 2), with a focus on information pertinent to the problem of encopresis. It is important that the clinician have a basic understanding of normal defecation, which involves a coordination of physiological and behavioral responses (see Figure 4.7). A description of the gastrointestinal (GI) system and of the process resulting in constipation (Palit, Lunniss, & Scott, 2012; Walker, Milling and Bonner, 1988) follows.

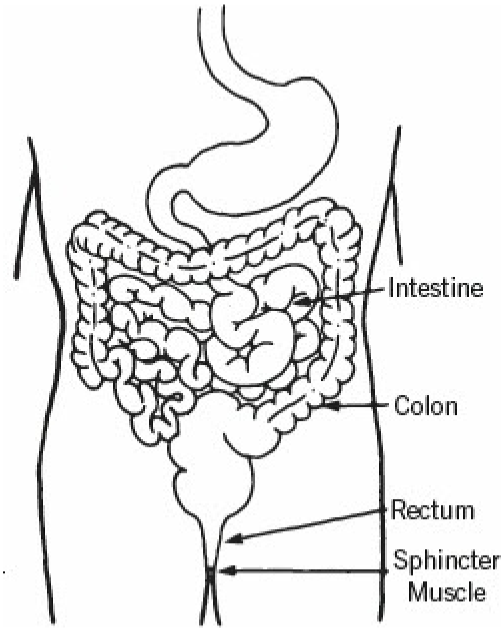


FIGURE 4.7. The gastrointestinal (GI) system.

The digestive process is an active one, with food broken down in the stomach and small intestine, and nutrients absorbed as food are digested. Waste reaches the large intestine, where water is reabsorbed and the waste material is formed into fecal material or stools. The passage of feces through the intestinal tract is the result of a series of wave-like motions of the entire tract (*peristalsis*). Distension of the rectum by the arrival of additional fecal material creates the urge to defecate. The peristaltic action resulting in the urge to defecate is usually strongest 15–30 minutes after breakfast, but some people experience a rush after each meal. On average, three-fourths of food waste is excreted within 96 hours, but there are wide individual differences. The normal stool should be soft, moist on the outside surface, and have a distinct shape. Infants usually have four movements per day, 4-month-olds have two per day, and by age 3–4 years, 97% of children have one bowel movement per day, but this can vary from three per day to three times a week (Felt, Brown, Harrison, Kochhar, & Patton, 2008).

The ability to control defecation depends on both adequate innervation of the colon and anus, and the child's ability to relax and contract the external sphincter purposively. The toilet training process teaches the child to recognize and respond to the stimulation of the rectum (urge to defecate), then to relax the external anal sphincter voluntarily when he or she is seated on a toilet or potty chair. If for any reason the urge to defecate is not responded to, the fecal mass is redeposited into the lower end of the colon by reverse peristalsis. When this process is repeated many times, the normally empty rectum tends to become accustomed to the increased pressure caused by the presence of stool; consequently, the urge to defecate passes. In the meantime, the colon is constantly absorbing water from its contents, and the stool becomes hard, dry, and difficult to pass. Children are reluctant to expel hard, large stools, which are painful, and constipation may result. As fecal material continues to accumulate, the intestine becomes enlarged (*psychogenic megacolon*; see Figure 4.8) and loses its muscle tone. The intestinal wall becomes thin as a result of stretching caused by the impacted fecal material, and normal peristaltic and mass movements are not able to evacuate feces fully from the bowel.

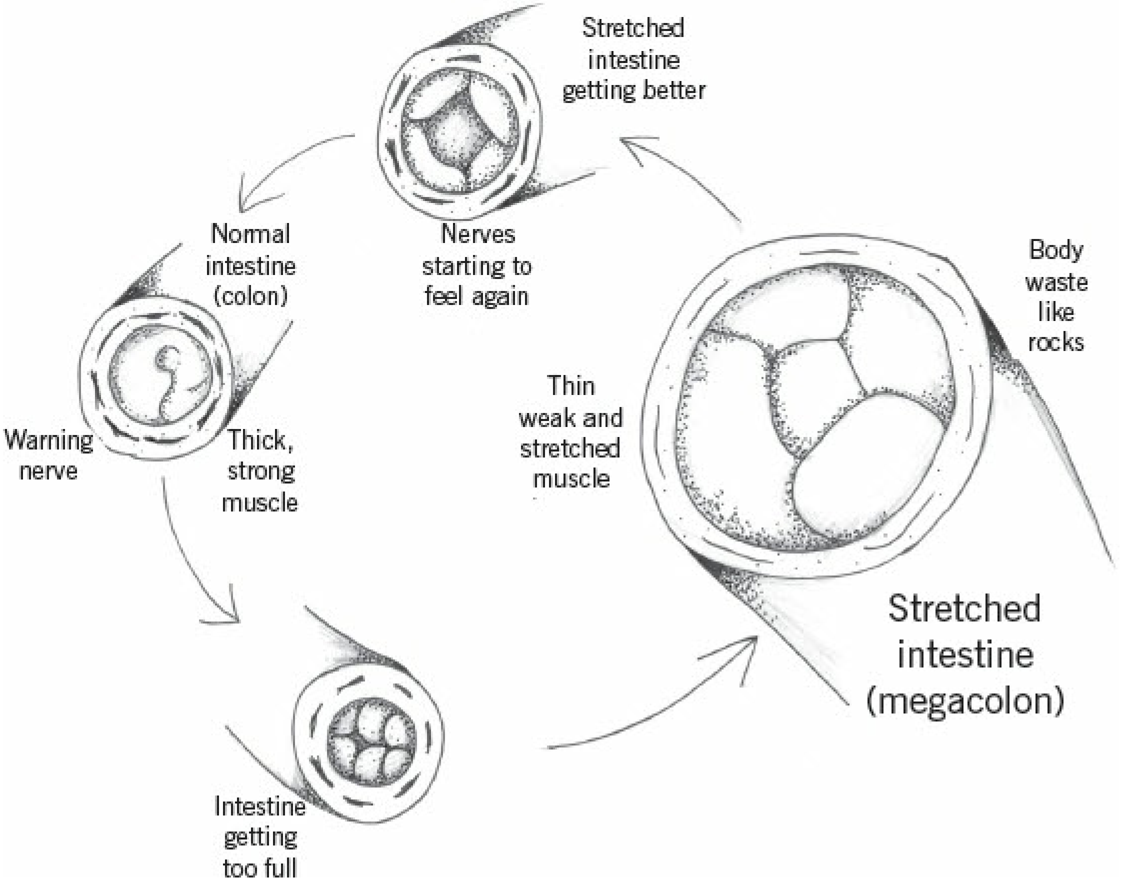


FIGURE 4.8. Megacolon. (Illustration by Zoe Schroeder.)

In some cases, the large intestine becomes so impacted with feces that the entire abdominal cavity is filled. With impaction, bowel function is compromised, and a chronic state of constipation results. Then, as fluid from the small intestine makes its way to the large intestine, it forms a pool above the impacted feces in the colon. This fluid material then seeps around the impacted mass and out through the anus, staining the child's clothes with a paste-like material. Because the passage of this material is not accompanied by the usual sensation of the urge to defecate, the child does not realize that it has happened until he or she feels wetness in the rectal area or on clothing. At other times, large amounts of the impacted material may be explosively expelled, causing major soiling of the clothes. Given that neither the seepage nor the explosive bowel movements are under voluntary control, one can readily see that chronic constipation is likely to inhibit learning of bowel control or to interfere with previously learned toileting skills.

Common signs and symptoms associated with constipation include soiling, passing enormous stools or frequent small pellets, withholding or straining to stop the bowel movement, excessive and foul-smelling flatulence, abdominal pain, poor appetite, lethargy, and an unhappy, angry, irritable mood. It is interesting that parents often do not recognize that these symptoms indicate constipation, and it is only discovered upon a physical examination (McGrath et al., 2008). Some parents view the behavior as diarrhea and use antidiuretics to correct the soiling, which only makes it worse.

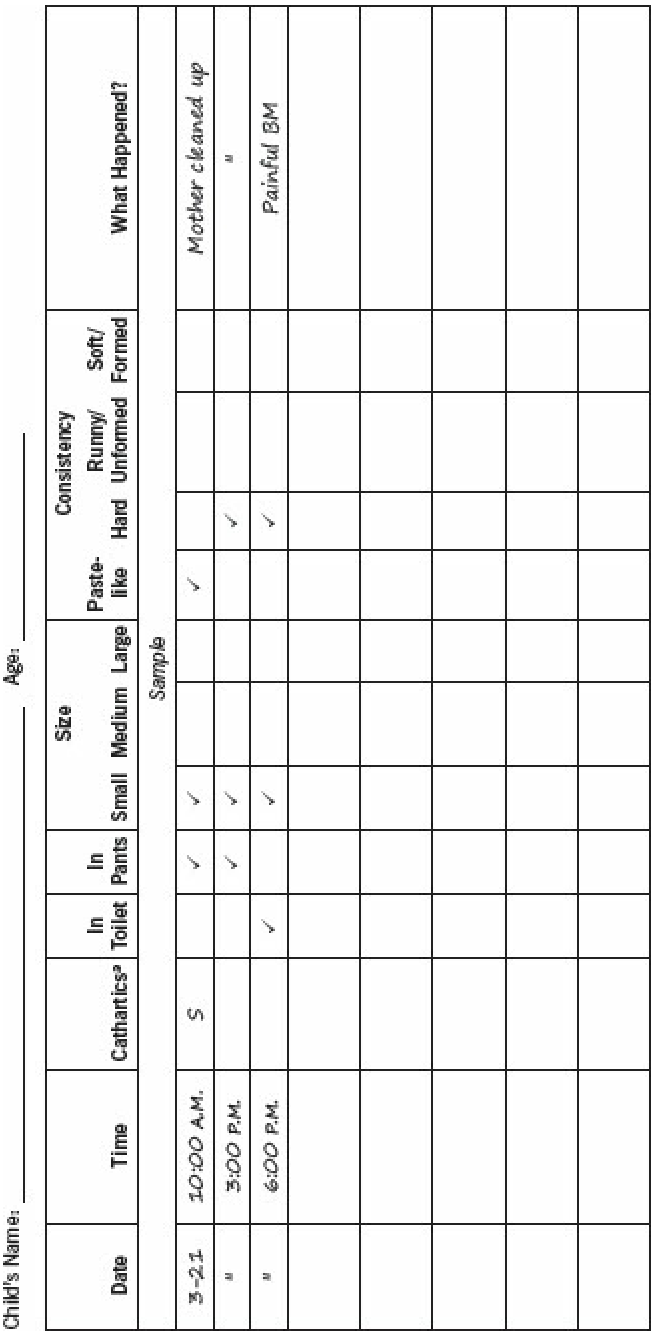
Step 1: Initial Contact

The first step in assessment is a thorough examination by a physician to rule out an organic basis for the fecal incontinence and to determine whether the colon is impacted. About one-half of children with functional constipation have firm, impacted stool in the rectum (Felt et al., 2008). If the child is constipated, then continued collaboration with the physician is necessary to coordinate the use of cathartics.

A general questionnaire (e.g., our General Parent Questionnaire; see Appendix B) and checklists to rule out emotional or behavioral problems should be sent to the parents prior to the initial interview. The CBCL (Achenbach, 2013; Achenbach & Rescorla, 2001a, 2001b) or the BASC-3 (Reynolds & Kamphaus, 2015) and the PSI-4 (Abidin, 2012) are recommended. A questionnaire on the health-related quality of life (HRQL), that is, the Parental Opinions of Pediatric Constipation (POOPC; Silverman et al., 2015), is also recommended to determine the impact of the symptoms of constipation on the child and family's life. The POOPC is a parent-completed 50-item questionnaire with four subscales: Burden/Worry, Family, Treatment, and Social, which identify specific areas of concern (see Appendix A). The parents should be asked to keep data on bowel and toilet activity for at least a week (Figure 4.9) and data on food and liquid intake, as well as physical activity for 3 days (Figure 4.10).

Bowel Movement Chart

BASELINE/TREATMENT



Child's Name: ______________________ Age: __________

Date	Time	Cathartics[a]	In Toilet	In Pants	Size			Consistency				What Happened?
					Small	Medium	Large	Paste-like	Hard	Runny/ Unformed	Soft/ Formed	
Sample												
3-21	10:00 A.M.	S		✓	✓			✓				Mother cleaned up
"	3:00 P.M.			✓	✓				✓			"
"	6:00 P.M.		✓		✓				✓			Painful BM

[a]Cathartics: suppository (S); enema (E); oral (O)—mineral oil, Miralax, and so forth.

FIGURE 4.9. Chart for recording bowel movements during baseline and treatment.

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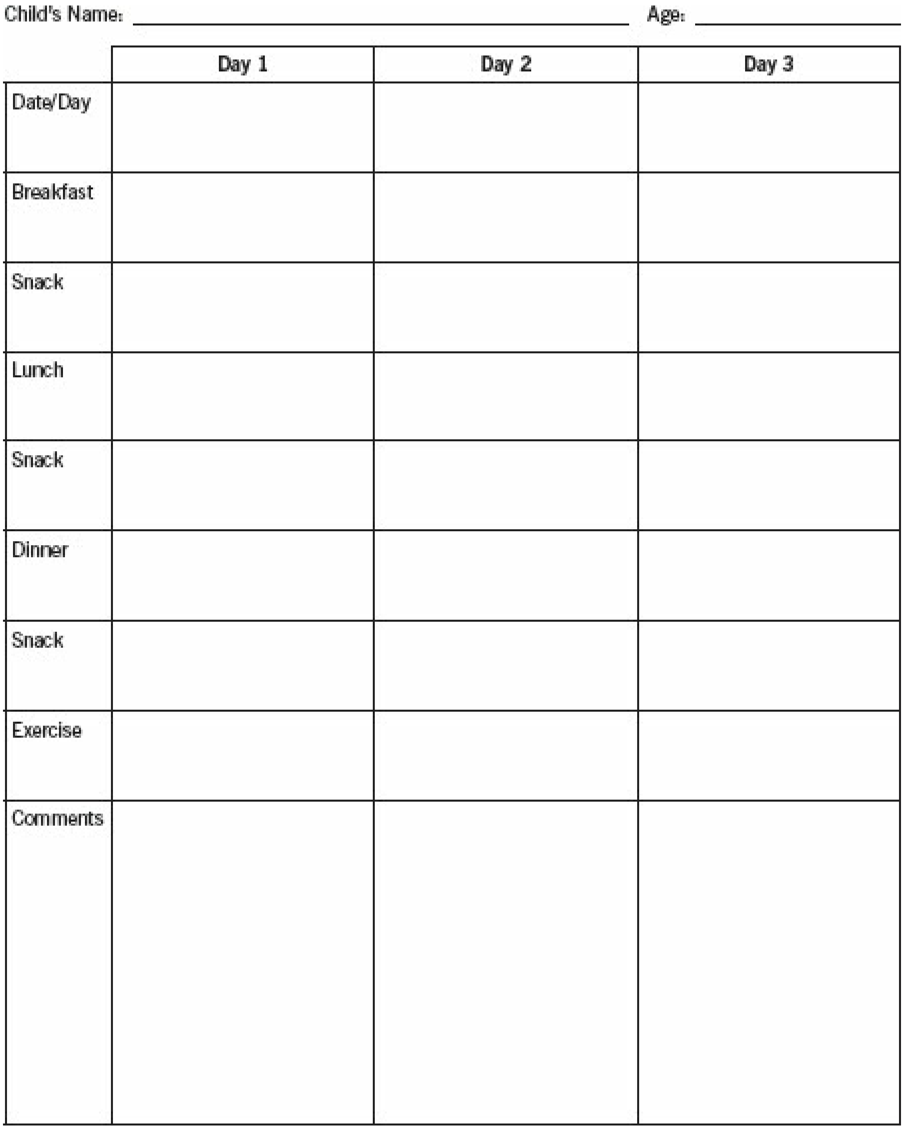
Diet/Exercise Record



Child's Name: ______________________ Age: __________

	Day 1	Day 2	Day 3
Date/Day			
Breakfast			
Snack			
Lunch			
Snack			
Dinner			
Snack			
Exercise			
Comments			

FIGURE 4.10. Diet/exercise record for baseline data.

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Step 2: Initial Intake Interview

The child and parents should be seen together for the initial interview. The child's perceptions of the problem and willingness to engage in a treatment program are important to assess, as is the parent–child interaction in regard to this issue. The interview should focus on the following questions:

1. *Are there behavioral or emotional problems?* Information from the general questionnaire and rating scales should be reviewed to rule out significant emotional or

behavioral problems. We have found that even if emotional and behavioral problems are present, treating the encopresis generally helps to improve these problems. If there is significant psychopathology, noncompliance, or serious parent–child conflict, however, the clinician will have to determine whether these should be treated before or concurrently with treatment of the encopresis.

2. *Have there been recent stressful life events for the family or the child?* A review of family history is important, with an emphasis on stressful life events (e.g., a household move, a new school, the birth of a sibling, parent separation, a hospitalization, an illness or death). The clinician should determine whether any of these events occurred close to the time the soiling started.

3. *How did toilet training proceed?* Parents should be asked to describe the process of toilet training their child, including the age at which it began, methods used, responsiveness of the child, and the age at which both daytime and nighttime continence were achieved (if at all). Previous treatment attempts should also be described in detail. This information will help the clinician determine whether the child actually was taught and/or learned appropriate toileting skills.

4. *What is the current status of toileting habits and bowel movements?* A thorough review should be made of the bowel movement data. Current toileting habits (time of day, length of sits), frequency of bowel movements (children can go several times a day in small amounts and still be constipated), and nature of the stool (e.g., runny, soft, paste-like stains; hard, small stools or occasional enormous amounts that are painful or difficult to pass; or an unusual foul odor) should be noted. Other behaviors may include withholding or straining to stop the bowel movement.

5. *What is the environmental context of the problem?* Asking for a brief description of a typical day for the child and family is useful in getting a picture of the family's daily routine. A chaotic environment with irregular meals or a stressful time schedule can interfere with consistent toilet practices. Does the child hide his or her underpants, which might indicate the use of punishment? The dietary and exercise data also should be reviewed at this time, to determine whether these might be factors contributing to the problem. Has there been a loss of appetite?

6. *How do the child and parents perceive the problem?* The child's beliefs, feelings, and concerns about the problem should be assessed. It is always important to ask, "Why are you seeking help now?" What, if any, previous treatments have been tried, their success–failure, and the parents'–child's feelings about them? Treatment of encopresis requires considerable effort and vigilance on the part of both parents and child; without their full cooperation, treatment will fail.

Step 3: Observation of Behavior

Data on bowel habits and informal observation of parent–child interaction are usually all that is needed. If the parents report significant behavior management problems, the clinician should engage in more systematic observation of parents and child (e.g., a child and parent game; see Chapter 10), with the goal of identifying additional areas in need of attention or to change the treatment focus.

Step 4: Further Assessment

Further assessment is necessary only if other problems are suspected. For example, it is very likely that a child presenting with encopresis without constipation and/or significant child or family problems will need further evaluation (e.g., parent–child interactions, marital issues).

Step 5: Collaboration with Other Health Care Professionals

If a physician has not seen the child prior to the initial interview, a referral should be made. Collaboration with the physician is necessary, especially if the child is impacted and cathartics are used in the treatment program.

Step 6: Communication of Findings and Treatment Recommendations

It is strongly recommended that the child be present to hear the findings and recommendations. In communicating the recommendations to the child and family, it is important to share information about the GI system and the rationale for the treatment program, including common causes of encopresis, and that the child is not intentionally soiling. Punishment and past responses may cause the parents to feel guilt, which should be addressed. The influence of encopresis on the child's development in other areas should also be discussed. The family's clear understanding of the problem and the proposed treatment process, including the importance of consistency in carrying out its component parts, enhances the likelihood that the parents and child will cooperate with treatment.

TREATMENT OF ENCOPRESIS

Encopresis is a complex, multidetermined problem, but due to the paucity of randomized controlled trials, there is no well-established "best" treatment. However, there are enough empirical studies and consensus on treatment to guide the treatment process. We provide a brief review of the treatment literature in this section, with a focus on the most successful treatments to date (see Brazzelli, Griffiths, Cody, & Tappin, 2011; Freeman, Riley, Duke, & Fu, 2014; McGrath, Mellon, & Murphy, 2000). McGrath et al. indicate that interventions have included (1) medical treatment, which can involve initial cleaning of the bowel, ongoing use of laxatives, dietary recommendations of increased fiber and water, and a sitting schedule; (2) biofeedback interventions, which teach the child to reverse paradoxical constriction by learning how to relax the external anal sphincter during active straining; (3) behavioral interventions, including education, monitoring, toilet training, incentives and rewards, desensitization of toilet phobia, awareness training, and environmental management to reduce the level of stress; and (4) psychotherapeutic interventions, including play therapy, parenting skills, parent support, child psychotherapy, and family therapy.

For children with constipation, a combined *medical–behavioral treatment* approach has been demonstrated to be most effective and is considered the front-line treatment (Felt et al., 2008; Freeman et al., 2014; Friman, Hofstadter, & Jones, 2006; McGrath et al., 2000). This combined treatment focuses on restoring normal bowel movements without the need for laxatives. The component parts of the treatment have not been empirically tested, but they have been shown to be more effective than medical treatment alone, and there are compelling empirical data that biofeedback and psychotherapy are not necessary for the majority of children (Brazzelli et al., 2011; Brooks et al., 2000; Di Lorenzo & Benninga, 2004; Freeman et al., 2014). A brief review of a few successful medical–behavioral programs for children with constipation and fecal incontinence follows.

Wright (1975) described a highly successful procedure for constipation, with and without overflow, which includes the systematic use of suppositories and enemas, as well as behavioral techniques. The first step in the program is to ensure that all fecal material is removed from the colon, usually through the use of enemas administered by the parents under a physician’s direction. Then, in the morning, immediately upon awakening, the child is told to sit on the toilet and attempt to have a bowel movement. If the child produces one-fourth to one-half cup of feces, he or she is praised and given a reward. If the child produces less than that amount or nothing, the parent inserts a glycerin suppository, and the child is instructed to dress, prepare for school, and have breakfast. After breakfast, the child is instructed to sit on the toilet again; if this attempt is successful, the child is given a reward, but one smaller than the one for defecating independently. If the second attempt is unsuccessful, then an enema is given. No reward is given if an enema is needed to produce defecation. At the end of the day, the child’s clothing is examined for soiling. If it is clean, the child is given another reward; if it is soiled, a mild punishment (e.g., sitting on a chair for 10 minutes) is administered.

Training proceeds in this manner until the child has two consecutive weeks with no soiling. Then the cathartics are discontinued for 1 day of the week, and as each week is soil-free, an additional cathartic-free day is added until the child is defecating completely independently (for an in-depth description of this procedure, see Walker, Milling, & Bonner, 1988, pp. 388–391). Walker and colleagues report that when properly applied, this program has resulted in cessation of soiling in 100% of cases. We have also found this program to be an effective method of treatment, especially for children who have had severely impacted bowels or do not respond to a less invasive medical–behavioral approach. Some physicians and parents resist using enemas and suppositories repeatedly, although there are no reported detrimental effects of using these methods (Stark, 2000), and most parents can administer them.

Stark and colleagues (1997; Stark, Owens-Stively, Spirito, Lewis, & Guevremont, 1990) describe a 6-week group treatment protocol that does not include the continuous use of laxatives. The procedure uses enema cleansing, increased dietary fiber, and increased water consumption (with specific instructions and data collection), and daily toilet sitting (with behavior management strategies—differential attention, contingency management, and contracting). This approach was successful in 6 weeks for the majority of children (86%). These results are impressive, especially given the cost-effectiveness of group treatment and the absence of laxatives after the initial bowel cleanout. Kuhl et al. (2010), using the group format, found that an enhanced educational and behavioral program that set daily goals for fiber and water intake improved adherence to recommendations and outcome. This work demonstrates the importance of fiber and water intake in both the treatment and maintenance of healthy bowels.

Ritterband et al. (2013) reported on the effectiveness of a pediatric Internet intervention for encopresis, UCanPoopToo, a child-focused (ages 5–12 years) program based on evidence-based medical–behavioral procedures. It uses graphics and animation in an interactive tutorial on (1) anatomy (physiology of the digestive system), (2) medication (cleansing, laxatives), and (3) behavior (toileting habits, reinforcement). In addition, there are 22 modules that can be used for specific problems. In a randomized comparison of treatment as usual (TAU) by a pediatrician to TAU plus UCanPoopToo, a 1-year follow-up after 12 weeks of treatment found that the TAU plus UCanPoopToo group had significantly fewer accidents (1 vs. 4.5 accidents per week) and a 64% success rate (< 1 accident/2 weeks) compared to 20% for the TAU group. It is also important to note that the parents using the Internet intervention demonstrated good adherence to it. The easy accessibility of this treatment makes it a very promising approach.

TREATMENT PROTOCOLS FOR ENCOPRESIS

We have come to view encopresis as primarily a “plumbing problem” that most often requires medical intervention, as well as the teaching of appropriate toilet habits and lifestyle changes (e.g., exercise and diet). Thus, our approach to treatment of encopresis focuses on the needs of the individual child and family, and is a combination of behavioral and medical methods. It includes the following components: (1) Information is provided to the parents and child to help change their inappropriate beliefs or attitudes about the problem and to facilitate understanding and cooperation; (2) medical, dietary, and exercise interventions are used to correct the physical problems of chronic constipation or chronic diarrhea; (3) appropriate toileting behaviors are taught or increased; (4) environmental conditions are changed to facilitate the acquisition of the correct responses; and (5) consequences for appropriate and inappropriate behaviors are changed.

The particular components of a treatment protocol for encopresis with constipation are described, followed by protocols for encopresis without constipation. Each protocol can be modified to meet the needs of the individual child.

Encopresis with Constipation

Sharing Information

The parents and child should be told that encopresis with constipation is not an uncommon problem, and that early treatment can help to alleviate it. A brief description of the digestive system and where the problem may lie for the particular child should be given in language appropriate to the child's level of understanding. The use of a diagram or simple drawing (Figure 4.7) showing the GI tract, with some discussion of where things can go wrong, is important. The child should be shown how constipation can cause the colon to get out of shape (Figure 4.8) and not work properly, which then results in uncontrollable seepage (the paste-like stains) or very large bowel movements. Constipation can also make it difficult to feel the urge to defecate and to empty the colon completely of feces. Finally, the appearance of normal bowel movements (large, moist, well-formed) should be described. The parents and child should be told that treatment can take up to 6 months to a year, and follow-up after that period is needed. Generally we follow the child weekly during the cleansing and initial maintenance phase, then move to every 2 weeks for 1–2 months, then monthly up to a year. Phone contacts can be set as needed. It is important for the parents to keep complete daily records, which allow the clinician to follow the child's progress and be alerted to problems. Studies report successful treatment in 50–70% of children (Brazzelli et al., 2011), but we have found that careful documentation and follow-up with families results in nearly all children having independent regular bowel movements.

Intervention with the Child

Medical Intervention

Enemas, suppositories, and laxatives are used to cleanse the bowel of impacted feces and maintain regular bowel movements. For the colon to return to a normal shape and functioning, laxatives are usually required for months to a year or more. Although these can be purchased over the counter, they should be used under the direction of a physician. The type of enema used should be one that is safe for repeated administration, such as Children's Fleet Enemas.

The most common laxatives are polyethylene glycol (PEG; trade names: Miralax, Glycolax, and Retorallax), mineral oil, milk of magnesium, and laculose. Mineral oil lubricates hard stools and comes as oil (mix with juice) or emulsion (chocolate-flavored) with the side effects of leakage if the dose is too high or impaction is present. The other medications are osmotics or stool softeners, which retain water in the stools. Phatak and Pashankar (2014), in a summary of studies using Miralax and its comparison with the other laxatives, report that Miralax is more effective than lactulose, equally as effective as milk of magnesia and mineral oil, and has a much higher acceptance rate than the other laxatives, thus leading to a higher adherence rate (90% compliance rate during a mean duration of 8.7 months). Doses vary with the severity of constipation but they recommend 1–1.4 grams per kilogram per day for 3 days for cleansing, and to start with 0.5–0.8 grams per kilogram per day for maintenance. Once a dose is set to produce soft, moist "mushy" stool one to two times a day, which is difficult to retain, it rarely needs to be changed (Phatak & Pashankar, 2014). The benefit of Miralax is that it is tasteless, it comes as a powder that can be easily mixed with flavored water or juice, and it is effective and safe to use over the long-term. One capful of Miralax is 17 grams per 8 fluid ounces (17 grams = 5 teaspoons). Sometimes mineral oil is used together with Miralax to ensure complete stool passage.

Cleansing can be accomplished orally (laxatives) or rectally (enemas and suppositories). Occasionally children with severe impaction are hospitalized for manual removal of the impacted feces. If oral medications are used, they are prescribed at high doses and taken for up to 2–3 days to relieve the symptoms. Enemas give more immediate relief, sometimes within hours, and may be repeated to ensure that the bowel is clear. Enemas also are a bit more effective than Miralax, with 80% compared to 68% effectiveness rates (Bekkali et al., 2009).

Once the impacted mass is removed from the colon, suppositories and laxatives are used in a dose sufficient to produce one or more daily bowel movements, versus a dose calculated by body weight or a fixed dose. It should be given at the same time each day. In addition, the dose should produce the urge to defecate, so the child can learn to tune in to the cue. Thus, finding the correct dose will take some attention. When the child is having regular soft, moist, formed bowel movements, the laxative can be reduced by 1 day a week until the child has 14 days without soiling and continued regular bowel movements. Continue this gradual process until all laxatives are stopped. Alternatively, the amount of daily laxative can gradually be reduced for a week followed by 14 days of regular bowel movements, until the next reduction. In the event of a relapse, the laxatives should resume on a daily basis for 14 days, then gradually decreased.

In some cases in which the use of daily laxatives is not working, or when children lack motivation, we have found the daily use of suppositories and enemas, as needed, ensures daily bowel movements (Walker et al., 1988). Several weeks of this regimen usually result in daily unassisted bowel movements.

Diet and Exercise

Diet and exercise increase the likelihood of a healthy GI system, with regular and easily produced bowel movements. A balanced diet—one with a variety of vegetables, fruits, whole wheat breads, fats, and clear liquids—is optimal for normal bowel movements. The diet should be low in milk products and in foods containing large amounts of refined sugars (e.g., baked goods using white flour), because these foods can promote retention and constipation. Dairy intake should be limited to about 16 ounces of milk or the equivalent per day. Establishing a healthy diet and exercise program can be a gradual process, with new goals set on a weekly basis, along with a plan to implement the appropriate changes. The value of eating meals at a regular time and in a calm atmosphere should be emphasized.

Fiber, also known as *roughage,* is the part of plant-based foods (grains, fruits, vegetable, nuts, beans) that the body cannot break down. It passes through the body undigested, easing bowel movements. Insoluble fiber (whole grains, wheat cereals, carrots, etc.) is recommended, because it does not dissolve in water and is the bulky fiber that helps with constipation (Kuhl et al., 2010). Soluble fiber (oatmeal, nuts, apples, berries) dissolves in water and most unprocessed foods contain both soluble and insoluble fiber. The Internet has many sites listing high-fiber foods, and Table 4.1 has some examples. A standard fiber guideline for children is 5 grams plus the child's age in years; with constipation, it is recommended that this be increased to 10 grams plus the child's age in years (Felt et al., 2008). Thus, for a 6-year-old child, the total daily fiber recommendation is 10 grams + 6 years = 16 total daily grams.

TABLE 4.1. Sample Sources of Fiber

Food	Serving size	Fiber grams
Cereal		
Fiber One	½ cup	14
All-Bran	½ cup	10
Bran Flakes	1 cup	7
Shredded Wheat	1 cup	6
Raisin Bran	1 cup	5

Fruits		
Prunes	6	12
Pear (skin on)	1 medium	6
Apple (skin on)	1 medium	4
Strawberries	1 cup	4
Banana	1 medium	3
Orange	1 medium	3
Raisins	¼ cup	2
Vegetables		
Peas	½ cup	4
Sweet potatoes	½ large	4
Broccoli	½ cup	3
Carrots	1 medium	2
Green beans	½ cup	2
Other		
Fiber One Oats & Chocolate bar	1 bar	9
Whole wheat spaghetti	1 cup	4
Brown rice	1 cup	4
Whole wheat bread	1 slice	3
Peanuts, dry roasted	¼ cup	3
Popcorn	1 cup	1

Miscellaneous notes

1. Recommended fiber: 5 grams + child's age; if constipated, 10 grams + child's age.
2. Recommended clear liquid: total grams of fiber/day × 2; the more fiber the more water is absorbed.
3. Honey and prunes have chemical laxative effect.
4. Fats (butter, margarine, fried foods) aid in evacuation of stools.
5. If mineral oil is recommended, mix it with juice in blender, then add soda water or 7-Up to make it more palatable.

Clear liquids maximize the benefits of a high-fiber diet and the recommendation is 2 ounces of nondairy fluids for each gram of fiber intake. For example, for a 6-year-old child with constipation, the fluid intake should be 16 grams of fiber × 2, or 32 ounces of clear liquid (Kuhl et al., 2010). Using a 12-ounce water container to be used through-out the day, and 6–8 ounces of water at each meal can help the child reach the required amount of clear liquids.

Exercise helps to facilitate bowel movements and increases appetite. The child should be engaged in some physical activity (e.g., bike riding, sports, walking) for at least an hour each day. Starting with 15 minutes and gradually increasing the time can help reach this goal.

Development of Toileting Skills

Many children with encopresis have not learned proper toileting habits; even if they have, the onset of constipation usually disrupts these once-learned skills. Ultimately, the child must learn to take responsibility for his or her own toileting behavior by tuning in to the urge to defecate and taking the time to sit on the toilet.

The child should sit on the toilet for 5–10 minutes about 20 minutes after each meal (when the child is in school, he or she can sit on the toilet upon returning home). A timer can be used so that the child can sit independently. Firmly placing the feet on the ground, leaning forward with hands on the lap, and deep breathing help with defecation. It is important for the child to sit long enough to evacuate all the feces. The requirement of sitting should be handled in a matter-of-fact way, and this should be practiced on a regular basis. As regularity increases, the sitting times will naturally move to the times when the child has a bowel movement or has the urge to defecate.

If the child is successful in defecating a half cup to 1 cup or more of feces, then he or she does not have to sit after the next meal. Keeping a chart in the bathroom is a good way to record sitting on the toilet and successful defecation (see Figure 4.9). A star for each time the child complies with the routine, and fancy stickers for successful defecation, are good reinforcers for young children. For older children, a chart system (see Chapter 10) can be used, with points exchanged for rewards at a later time. Also, engaging in a fun activity after sitting can be helpful.

A “clean-pants check” should be instituted one to three times per day, depending on the nature of the child’s problem. Times should be chosen that allow for consistent checks—for example, after school, after dinner, or at bedtime. During the check, the child should be asked to show the parent his or her underpants (this can most easily be accomplished by having the child change his or her underpants). If they are clean, a small reward (or points) should be given, as well as praise. If the underpants are soiled, the child should be required to rinse and wash them (or put them in laundry room), undress and wash off, standing in the bathtub, and put on clean underpants and outer clothing, then sit on the toilet for 5 minutes. This should be seen as a natural consequence of soiling and be handled in a neutral, matter-of-fact way, with little or no talking.

If the child soils or does not have a daily bowel movement, a suppository should be used about 20 minutes before eating. If no or a small bowel movement (less than ½ cup), then an enema should be used to clear the colon. This method should continue until bowel movements occur for a week without the suppository and/or enema. Physician approval should be given in order to do this method.

For the child who does not respond to medical–behavioral treatment, there might be a continuing problem with contracting versus relaxing the external sphincter when attempting to defecate. While biofeedback has not been found to be necessary for most children, it may be helpful in these cases. Using deep breathing to relax the muscle (exhale when straining) has been reported to be helpful. Farahmand, Abedi, Esmaeili-dooki, Jalilian, and Tabari (2015) reported that pelvic floor muscle exercises (walking in a squatting position) significantly increased stool frequency, stool diameter, and consistency. The "walking time" increased from 5 to 15 minutes a day over a 2-week period for 8 weeks. This may be difficult to implement unless it potentially is made more interesting to the child, such as treating it like a game.

Intervention with the Parents

Parents need not only information but also assistance and support in carrying out the program. Giving the parents data collection forms (see Figures 4.9 and 4.10), helping them develop charts and reward systems, and keeping in regular contact with them and the child will ensure the much-needed consistency in carrying out the program. In some cases, we have had parents mail/e-mail the data forms once a week, then we call them at a set time to review the program and answer questions or concerns. For other families, we have found it necessary for the child and parents to bring their data to the clinic for a more personal review.

Intervention in the Environment

The environment should be conducive to acquiring good toilet habits. All toileting activities should occur in a bathroom that is readily accessible to the child. Toileting charts and rewards should also be kept in the bathroom. Clothing should be easy to undo and remove. There should be time in the regular schedule for the child to use the toilet without feeling rushed.

Changing the Consequences of the Behavior

Changing the consequences for the child's appropriate and inappropriate behavior is usually necessary in a family with a child with encopresis. We have suggested in the preceding sections ways to reward appropriate behavior. It is important, however, that the clinician take the time to find out what are acceptable rewards and punishments for a particular child and family, and help them implement these consequences effectively.

The child's regular sitting and fecal output should be praised. Praise should not be effusive or unwarranted, and expressions of displeasure should be mild. The clinician's frequent contact with the family should not only be supportive to the parents but also be reinforcing to both the child and parents. Children almost always respond well to written feedback from the clinician, and we use it for cases that are particularly difficult or for children with long-standing problems with encopresis.

After treatment (regular bowel movements without laxatives), we recommend that families be followed by phone on a monthly or bimonthly basis, if possible, for a year. This helps prevent relapses or ensure that relapses are immediately treated.

Stool Refusal Behavior

Some preschool children who are in the process of being toilet trained refuse to have a stool in the toilet. If they are not constipated, it is recommended that parents return them to diapers for several months, until regular toilet habits can be established (Taubman, 1997). If stool refusal occurs with constipation, then the medical–behavioral approach is recommended, including suppositories for daily bowel movements (Loening-Baucke, 1993; Luxem, Christophersen, Purvis, & Baer, 1997). Blum et al. (1997) report that preschool children with constipation, with or without stool–toileting refusal behavior, had similar behavior and compliance scores. Taubman (1997) found that 25% of parents with children who had stool–toileting refusal reported significantly more difficulty setting general limits for their children than parents of children without bowel problems. Thus, the majority of preschool children with toilet–stool refusal have a toilet-specific behavior problem, but some parents may need help with general behavior management issues.

Encopresis without Constipation

Encopresis without constipation is usually a problem with poor or incomplete toilet training, a diarrheic problem, or a psychosocial problem.

Poor Toilet Training

If the child is poorly toilet trained, then a focus on teaching the child appropriate toileting skills is important (see “Development of Toileting Skills” in the treatment protocol for encopresis with constipation). A glycerine suppository can be used to help establish a regular schedule, then faded as the child is able to have bowel movements independently at the specified time (Christophersen & Purvis, 2001). Careful charting of bowel movements (see Figure 4.9) is important, as well as a system for rewarding bowel movements in the toilet and consequences for soiling. Depending on the severity of the problem, a response cost system may also be used for accidents. Working with parents on noncompliance or management issues can be helpful in these cases.

Psychosocial Difficulties

Children evidencing psychosocial problems in addition to toileting issues need further evaluation for other behavior problems or disorders (e.g., oppositional defiant behavior), as well as an assessment of the parent–child relationship and family problems. Depending on the age of the child and environmental circumstances, a combination of parent training to improve the parent–child relationship, behavior techniques to deal with child management issues, and family therapy to improve communication may be needed to help the child learn better coping skills. These problems may have to be addressed prior to focusing on the toileting problems.

It is particularly important for the family to have a consistent daily schedule, including routines for eating, exercise, bedtime, and special time with the child and/or family. Proper toileting habits also have to be instituted. Family members may need help in determining how to prioritize and implement these important routines into their schedules.

Diarrheic Encopresis

A treatment protocol for diarrheic encopresis should include the following elements.

Sharing Information

If the child is diarrheic or has irritable bowel syndrome (prevalence rates of 5%; Saito, Schoenfeld, & Locke, 2002), parents should be given information on the GI system (Figure 4.7) and told that the digestive system responds to stress in particular ways, that each child's response is unique, and that the goal of treatment is to help the body respond in a way that decreases the likelihood of diarrhea.

Intervention with the Child

The child's physician should be consulted to determine whether antidiarrheal medications or diet modifications may be helpful. The importance of good toileting habits should be stressed, especially regular times for sitting (with charts and rewards for this behavior).

Anxiety and stress play an important role in diarrheic encopresis. Reducing stress and increasing coping skills are important parts of the treatment (Walker, 1995). Both the child and the parents need support in learning to identify stressors and handle them more effectively. Stress reduction techniques should be chosen on the basis of the stressors that the child encounters, the age of the child, and other individual characteristics. Techniques that can be used include systematic desensitization, relaxation training, stress inoculation training, or assertiveness training (see Chapter 7).

Intervention with the Parents

Problems with child compliance or management techniques should be addressed with the parents and treated concurrently with the treatment for the diarrhea (see Chapter 10). Marital/couple or family therapy should be considered if problems are found in those areas.

Intervention in the Environment

It is important to have ongoing data collection regarding the possible setting events for a diarrheic episode and the consequences of the episode. This helps provide information on the potential targets for treatment. It is particularly important that daily routines for eating, sleeping, exercise, and play be followed with the least amount of disruption to the schedule.

Changing the Consequences of the Behavior

Although reinforcement should be given to children for appropriate toileting, the focus should be on the importance of learning to use effective skills to deal with anxieties and stresses. In addition, children should not be punished for diarrheic episodes, although they should be expected to help clean their clothing and themselves, and to sit on the toilet after such episodes.

CASE EXAMPLE: ENCOPRESIS

Step 1: Initial Contact

Mrs. Potter called about her 8-year-old son, Mark, who was soiling his pants one to two times a day. He had not had a physical examination within the last year, but previous medical exams had indicated that there was no physiological basis for his soiling. Mrs. Potter was referred back to the physician for an updated physical, and permission to contact the pediatrician was obtained. Each parent was asked to complete checklists to rule out emotional and behavioral problems (CBCL, ECBI, and PSI-4); together, they completed the General Parent Questionnaire, a 3-day diet and exercise record (Figure 4.10), and a 7-day record of soiling that included how they handled these incidents

(Figure 4.9).

The General Parent Questionnaire indicated a middle-class family, with both parents in their late 40s. Mr. Potter was a supervisor at a local department store, and Mrs. Potter was a former teacher who was currently a full-time homemaker. Mark was the only child of this marriage, which was the second for both parents. There were two half-siblings from the mother's previous marriage and three from the father's, none of whom were living in the home. The parents also indicated that although Mark was capable of achieving in school, he rarely completed his in-class work and often forgot his homework. Mrs. Potter indicated that Mark's soiling was due to laziness and not wanting to take the time to go to the bathroom. Mr. Potter felt that Mark was just slow in learning good toileting habits.

The parents' responses to the rating scales differed dramatically in a number of areas. On the ECBI, both mother and father had Intensity scores between 160 and 170, indicating that Mark engaged in many noncompliant and disruptive behaviors at a high frequency. The Problem scores, however, indicated that Mrs. Potter perceived significantly more of these behaviors as problematic (Problem score = 22) than did Mr. Potter (Problem score = 6). On the CBCL, both parents indicated that Mark had only a few friends in the neighborhood; he had few chores at home but was involved in organized sports activities in the community. Both parents rated Mark above the 98th percentile on Somatic Complaints and within the normal range on all other scales. The PSI-4 described Mark as neither easy nor difficult; he was acceptable to both parents, but more reinforcing to his father than his mother. Mrs. Potter also had high scores (indicating problems) on the Social Isolation, Health Problems (she mentioned sleep difficulties and headaches), and Relationship with Spouse scales. Her total stress score was also very high. The father's responses placed him within the average range on all scales, with the exception of Relationship with Spouse.

The 3-day diet and exercise record indicated low levels of fiber intake, as well as high intake of refined sugar and milk products. Exercise was limited to organized sports three times a week. The 7-day record of soiling indicated that Mark had small, paste-like soiling one to two times a day, and a large bowel movement in his pants every 1–2 weeks.

Step 2: Initial Intake Interview

Mr. and Mrs. Potter and Mark came together for this interview. The parents presented as nervous, older parents who generally appeared unhappy. Although they described Mark as a very noncompliant child, they said the reason they came for help at this time was because of complaints from Mark's teacher about his odor. Moreover, other children were starting to tease him, and the parents were beginning to have conflicts over handling the problem. Mr. Potter felt that his wife's nagging and pressuring Mark about his soiling were making it worse, and that if she would just leave him alone, it would go away. Mr. Potter admitted, however, that he felt the soiling was interfering with Mark's social development, as well as being an annoyance for him and for Mark.

Mrs. Potter stated that Mark had essentially toilet-trained himself for urine by age 4, although he still had accidents about once a month and had never been dry at night. Bowel training had never been fully accomplished. The soiling was described as an ongoing problem, and no particular stressful events had occurred that might have precipitated it. The parents had tried rewards (e.g., giving Mark a new watch if he was clean for a month), spanking, and threatening to remove privileges (e.g., not allowing Mark to go to the mall, not letting him watch TV for a week). When Mark complained of stomachaches and appeared constipated, they had also used enemas at the suggestion of their pediatrician. Currently, they were making Mark change his clothes when he smelled bad, and they had sent extra clothes to be kept at the school. Mrs. Potter, as a former teacher, was quite embarrassed about Mark's soiling at school.

The daily routine at home was chaotic. Mrs. Potter got up after Mr. Potter and Mark had left in the morning. Mark ate separate meals from his parents, often in front of the TV. His bedtime varied considerably from night to night, and he had no regular responsibilities or chores at home.

Mark appeared as a pleasant youngster who was rather lethargic and generally uninterested in the discussion. He denied any concern about soiling or feeling bad about being teased. He did, however, indicate (although rather unenthusiastically) that he would be willing to work to resolve the problem.

Step 3: Observation of Behavior

The parent–child interaction was quite warm and reinforcing. Mark frequently asked them to look at a Legos construction and drawing that he worked on as the clinician and parents talked. Mrs. Potter, however, asked Mark many questions for which answers were not expected, and made many requests to which Mark did not have an opportunity to comply. He seemed to tune out his mother's demands until she raised her voice.

Step 4: Further Evaluation

The parents were seen both individually and together to further explore marital issues and management skills. The marriage problems all focused on disagreement about handling Mark, and although there did not appear to be many parents-alone activities, both parents seemed content with their life together. Mrs. Potter felt stressed by the care of a young child, stating that she had few friends with children Mark's age, felt uncomfortable with the younger mothers, and therefore engaged in few social activities.

Mark's teacher was contacted to discuss soiling at school, and she was asked to complete the CBCL—Teacher's Report Form (Achenbach, 2013; Achenbach & Rescorla, 2001b) and Teacher Questionnaire (see Appendix B). Mark was also observed during a group activity, individual seatwork, and recess at school. The teacher described Mark as a quiet, generally compliant child (he did not always tune in to general directions given to the class), who was not actively disliked by other children but preferred to play alone. Although there was some teasing, she did not feel this was a major problem. She had him change clothes and wash himself at the first sign of soiling.

Observations of Mark at school revealed a child who was quiet but participated in the group activity, who drew instead of doing his schoolwork during individual seatwork time, and who wandered around the playground at recess but readily complied when invited to join a game.

Step 5: Collaboration with Other Health Care Professionals

A medical examination was completed prior to the initial interview. The pediatrician found Mark to be chronically constipated and recommended a course of treatment with enemas to cleanse the bowel and laxatives for maintenance. He also agreed to work with the psychologist in managing the problem.

Step 6: Communication of Findings and Treatment Recommendations

Following the assessment, the following information was shared with Mark and his parents. The clinician reported that Mark appeared to be a youngster who had never learned appropriate toileting habits, had a problematic diet, engaged in little exercise, and lived in an environment that provided low structure for his daily routine. In addition, his parents provided few clear signals as to their expectations, and although threats were liberally used, they were rarely enforced. Mark appeared capable of engaging in expected developmental activities (schoolwork, personal hygiene, and social relationships), but he did not engage in any of these activities on a consistent basis. These ineffective daily routines have led to his long-standing, chronic constipation. Treatment recommendations included sharing information about the physiology of constipation; medical intervention with consultation of his pediatrician, using enemas, suppositories, and mineral oil; diet changes; teaching good toileting habits; increasing Mark's daily exercise; establishing a daily family routine; and parent training in management skills. The parents accepted these treatment strategies, and they were implemented simultaneously.

Course of Treatment

The pediatrician initially elected to cleanse the bowel with enemas and to try a course of treatment with mineral oil, coupled with regular times for sitting on the toilet. After 3 weeks, it was evident that this was not enough for Mark to have bowel movements on a daily basis without soiling accidents throughout the day. Thus, the Wright and Walker (1976) treatment program, which ensures daily bowel movements through the systematic use of suppositories and enemas, was implemented. A high-fiber diet and daily exercise (riding his bicycle, swimming with his mother, shooting baskets with his father) were recommended as lifestyle changes. Mark was initially rewarded every day; he earned 25 cents for clean pants and 50 cents for independent bowel movements. This was gradually faded into a weekly allowance. During the first week of this program, an enema was used on 3 days, suppositories alone were used on 3 days, and Mark had a bowel movement on his own on 1 day. During the second week, only one enema and three suppositories were necessary, and Mark had 4 days of independent toileting. By the fourth week, Mark was having bowel movements every morning after breakfast, without the use of suppositories or enemas.

Parent training quickly brought about increased compliance and better listening skills on Mark's part. It was strongly recommended that Mrs. Potter increase her social activities, and that she and Mr. Potter do more things as a couple for their own social support.

This case was followed through telephone contacts for 1 year following the completion of treatment. The parents indicated that they were not always as consistent as they should be, but generally things were going very well. On vacations, Mark's bowel movements tended to become less regular, but with the reinstitution of the normal daily routines, the problem was easily resolved. The parents and teacher reported that Mark was more energetic, had increased social interactions, was more independent, and seemed happier.

RESOURCES FOR CLINICIANS

Christophersen, E. R., & VanScoyoc, S. (2013). *Treatments that work with children: Empirically supported strategies for managing childhood problems* (2nd ed.). Washington, DC: American Psychological Association.

RESOURCES FOR PARENTS

Bennett, H. J. (2007). *It hurts when I poop!: A story for children who are scared to use the potty*. Washington, DC: American Psychological Association.

Gomi, T. (1993). *Everyone poops*. La Jolla, CA: Kane/Miller.

Koocher, G. P., & La Greca, A. M. (2011). *The parents' guide to psychological first aid: Helping children and* *adolescents cope with predictable life crises.* New York: Oxford University Press.

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[1] There is no universally accepted definition of *encopresis* and the Paris Consensus on Childhood Constipation Terminology (PACCT, 2005) suggests that the term *fecal incontinence* replace the terms *encopresis* and *soiling.* The terms *soiling, encopresis,* and *fecal incontinence* are often used interchangeably in the literature. Encopresis is also called *retentive encopresis* and *nonretentive encopresis*. For consistency, we use the DSM-5 terms in this chapter.

CHAPTER 5

Sleep

Sleep plays an essential role in children's growth, development, learning, behavior, and well-being. It allows the body to decrease its energy demands and to be repaired and restored, and it plays a major role in brain development and learning processes (Cirelli & Tononi, 2008; Harvey & McGlinchey, 2015). Although the demands for sleep dramatically change over the course of childhood, by age 18 years, children will have spent up to 40% of their lives sleeping (Meltzer & Crabtree, 2015). Given the dynamic interaction of biological, developmental, and environmental factors, it is not surprising that 25–40% of children experience a sleep problem at some time in their childhood (Jenni & O'Connor, 2005; Owens, 2005). Problems can include bedtime and morning struggles/conflict, difficulty maintaining sleep, sleepwalking, night terrors, nightmares, head banging, teeth grinding, fears/anxieties about sleeping, insomnia, and insufficient sleep. The types of sleep disturbances change with age and although they are common, they are not always transient. Persistent sleep problems can have a negative impact on the child's development and behavior, as well as on the family. They can also exacerbate other problems such as depression and anxiety, attention, academic function, social development, and health (Beebe, 2011; Beebe, Rose, & Amin, 2010; Gruber, Cassoff, Frenetti, Wiebe, & Carrier, 2012).

By the time parents request help with sleep problems, the situation has usually reached a crisis point. It is important for the clinician to be able to help these parents and children, as well as be aware of the role sleep problems may play in other disorders of childhood. In this chapter we first review normal sleep states and patterns, changes that occur with age, and the types of sleep disturbances seen in children. We then discuss assessment and treatment of the most common sleep problems.

TYPICAL SLEEP STATES AND PATTERNS

Sleep behavior in children should be considered within a biopsychosocial framework governed by intrinsic biological processes, development, environment, and culture. Thus, there is considerable variability among individuals, and across families and cultures (Jenni & O'Connor, 2005). To understand sleep disturbances, one must have a rudimentary understanding of the physiology and development of sleep. A mature nervous system is necessary to regulate the sleep cycle over many hours; thus, children's sleep cycles follow a developmental course.

Sleep States and Stages

The sleeping person may appear inert, but the sleeping state is a complex, highly organized neurophysiological process. Sleep is divided into two distinctly different states: rapid-eye-movement (REM) sleep and non-rapid-eye-movement (NREM) sleep (Carskadon & Dement, 2010; Jenni, Borbely & Achermann, 2004). REM sleep is characterized by an irregular pulse and respiratory rate, as well as rapid eye movements. There is a dramatic increase in blood flow to the brain, the body uses more oxygen, and brain waves resemble a mixture of waking and drowsy patterns. Although dreams and nightmares occur during REM sleep, little happens behaviorally. Muscles are relaxed, and nerve impulses are essentially blocked within the spinal cord, so the body is effectively paralyzed, although there may be small twitches of the hands, legs, or face. When a person is awakened from REM sleep, alertness returns relatively quickly. The longest and most intense REM activity occurs at the end of the sleep period, just prior to morning awakening. Thus, dreaming and nightmares are more frequent in the early morning hours.

NREM sleep is divided into three stages, which represent progressive levels of sleep from drowsiness to very deep sleep. Recently, the American Academy of Sleep Medicine (AASM, 2014) changed the terminology used to describe the different stages of sleep. Instead of four stages, sleep is now divided into three stages (N1, N2, and N3) of increasing depth.[1] During stage 3, breathing and heart rate become very stable, and the muscles are relaxed. Although the person usually lies very quietly, he or she can move, sweat profusely, and be very difficult to awaken. If the stimulus is important enough (e.g., a sick child crying), however, the person will promptly awaken but may be in a confused state for a few minutes. Mindell and Owens (2010) point out that the deep stage of sleep is increased in proportion to the amount of awake time, sleep loss, or chronic sleep disturbance. Children have large amounts of deep sleep, which peak between ages 3 and 6 years (when children are giving up naps), but these gradually decrease with age (Jenni & Carskadon, 2005). In contrast to REM sleep, the deepest NREM sleep occurs in the first 1–3 hours after falling asleep. Arousal from the initial 1–3 hours of deep NREM sleep is very difficult for children, who will appear disoriented, confused, or cognitively slow. Confused partial arousals can occur during NREM sleep, resulting in sleep terrors and sleepwalking, which are most frequent in the 60–90 minutes after the child has fallen asleep.

Sleep patterns change with development (Jenni & Carskadon, 2005). Although full-term infants have differentiated REM and NREM periods, the NREM period does not have different stages, 50% of total sleep is in REM sleep, and sleep cycles are about 50–60 minutes long. By 3 months of age, children usually fall asleep in 10–15 minutes, reach NREM stage 3 (via stages 1–2) 5–20 minutes after falling asleep, and have the first REM period (which lasts about 5 minutes) 1–2 hours after sleep onset. The NREM-REM sleep cycle is then repeated, with later REM periods lasting 15–20 minutes (Ware, Orr, & Bond, 2001). The cycle between NREM and REM sleep continues to lengthen during childhood, reaching maturity around age 8, with cycles lasting 90–110 minutes. At the end of each cycle there is a brief arousal, then a rapid return to sleep. On average, children have four to six arousals per night, with a decrease in the number of arousals with maturity due to longer sleep cycles and shorter sleep duration (Jenni & Carskadon, 2005). If children have trouble falling asleep independently or have significant nighttime fears or anxiety, then they are likely to need assistance returning to sleep after these night wakings (Meltzer & Crabtree, 2015).

Regulation of Sleep

Sleep is a dynamic and regulated set of behavioral and physiological states and stages. It is hypothesized that two distinct processes, a *wake–sleep-dependent homeostatic process* and an *intrinsic circadian rhythm*, determine the timing of sleep and wake. Both mechanisms undergo significant changes during development (Jenni & Carskadon, 2005). A wake–sleep-dependent homeostatic process is based on the need for sleep, so that the longer one is awake, the greater the pressure or need to sleep. Thus, if one takes a nap during the day, the pressure to sleep is decreased; likewise, if one has insufficient sleep, the pressure to sleep is increased. Sleep need (and the deepest sleep) is highest in the first part of the night and decreases with sleep.

The wake–sleep homeostatic process interacts with an intrinsic clock-like process, *circadian rhythm,* which is independent of the time one is awake or asleep and is affected by day–night cycles (light and dark). Circadian rhythms are biological cycles that repeat themselves about every 25 hours; they include patterns of sleeping and waking, activity and rest, hunger and eating, and fluctuations in body temperature and release of the hormones melatonin and cortisol. Not only is it important for our sense of well-being that these cycles be in harmony during the day, but the ability to fall asleep and stay asleep is closely tied to the timing of these cycles. The circadian timing system undergoes major changes during the first 6 months after birth: By age 3 months, the hormones melatonin and cortisol start to cycle in a 24-hour rhythm, so children sleep longer at night, and by age 6 months, the circadian timing system becomes mature and is relatively stable during early and middle childhood when circadian preference (night owl or morning lark) emerges (Jenni & Carskadon, 2005). During puberty, changes in circadian regulation result in a 1- to 2-hour sleep delay and waking 1–2 hours later, known as a *delayed sleep phase* (Carskadon, Acebo, & Jenni, 2004).

In summary, sleep–wake cycles are set each day by the daily routines of arising, eating, activity, going to bed, and so on. The cycles may also be affected by things such as seasonal changes in the light–dark cycle, with sleep tending to increase in the winter and decrease in the summer. Given that circadian rhythms go in 25-hour cycles, if one has no set time to sleep or be awake (e.g., during vacation or on weekends), then one is likely to go to bed later and awaken later, making it difficult to get back into a regular sleep schedule. If the sleep–wake cycle gets out of rhythm, a person begins to feel bad (e.g., jet lag).

If children's schedules are irregular, it is possible that their circadian rhythms may be off; they may want to sleep when they should be awake, and vice versa. Naps can also decrease the homeostatic pressure, which can interfere with the child's ability to fall asleep at night. Changing sleep routines (e.g., getting children to bed earlier, getting them up earlier, or having them sleep later in the morning) must take into account children's normal body rhythms, and changes should occur gradually.

Sleep Requirements

Although there is considerable individual variability in sleep requirements, Hirshkowitz et al. (2015) report that total sleep decreases with age, from 16 to 20 hours a day in the newborn (with the longest time asleep being 2–4 hours); 11–14 hours for preschoolers, including naps; 9–11 hours by ages 6–11 years, with actual sleep averaging 8–10 hours; and 8½–9½ hours by ages 12–18 years, with actual sleep averaging 7.5 hours (see Table 5.1). Culture can influence time spent in sleep, including naps and bedtimes, and a clinician should take this into consideration when assessing sleep problems (Jenni & O'Connor, 2005). Meltzer and Crabtree (2015) list a number of behaviors that may indicate that children are getting an insufficient amount of sleep: (1) They are difficult to wake up in the morning and take about 15 minutes to get going; (2) on weekends and vacations, they sleep at least 2 hours more a night; (3) they fall asleep at inappropriate times (e.g., during school or after school, or on short car trips); and (4) their behavior is better after nights of increased sleep. Insufficient sleep has been linked to children and adolescents having difficulty regulating their behavior (e.g., temper tantrums, inattention, hyperactive, impulsive, depressed/anxious mood (Gruber et al., 2012), memory and executive functioning (Beebe et al., 2010), and health and immune functioning, including hypertension, obesity, insulin resistance, common cold (Bhushan et al., 2014). All of these areas have been shown to improve with sufficient sleep (e.g., Gruber et al., 2012; Sadeh, Gruber, & Raviv, 2002).

TABLE 5.1. Typical Amounts of Sleep at Different Ages

Age	Total amount of sleep	Sleep periods

Infants	16–20 hours	2–4 hours
3–4 months	14–16 hours	4–8 hours; 7–8 hours/night
4–7 months	12–15 hours	8–12 hours/night; two naps of 1–3 hours each
8–12 months	12–14 hours	8–12 hours/night; two naps of 1–2 hours each
1–2 years	11–14 hours	11–12 hours/night; one nap of 2 hours in P.M.
3–5 years	10–13 hours	10–11 hours/night; one nap of 1 hour in P.M.
5 years	10–12 hours	No naps
6–13 years	9–11 hours	No naps
14–17 years	8–10 hours	No naps

Note. Data from Hirshkowitz et al. (2015) and Shelov, Altmann, and Hannemann (2014).

SLEEP DISTURBANCES

It is estimated that 25–40% of children at some point during childhood experience a sleep problem, which can range from transient difficulties (e.g., difficulty falling asleep and night wakings) to more serious primary disorders such as obstructive sleep apnea (Owens, 2011). A number of variables must be considered in determining a sleep problem, including the cultural, racial–ethnic, and family/environmental context in which the sleep behavior occurs, as well the child’s developmental, behavioral and physical status. For example, co-sleeping is common in many cultures (e.g., Japan) and ethnic groups (e.g., African Americans). In Japan, most children consistently sleep with their parents for the first 3 years of life, with few sleep problems (Jenni & O’Connor, 2005). In contrast to the 100% all-night co-sleeping in Japan, co-sleeping in the United States occurs in 15% of families and usually involves intermittent and partial-night co-sleeping, as a result of bedtime struggles and night wakings (Latz, Wolf, & Lozoff, 1999). Thus, co-sleeping per se is not the problem, but how it is perceived and carried out is.

Sleep problems also have to be considered in the context of normal physical and cognitive–emotional phenomena that occur at different developmental stages (Meltzer & Crabtree, 2015; Owens, 2011). For example, in the first year of life when children begin to roll over, sit up, stand, or begin teething, night time wakings may increase, or as toddlers experience developmentally typical separation anxiety they may have increased night time fears and wakings. Likewise, children’s circadian rhythms change with the onset of puberty, causing a delay in the sleep–wake cycle.

There are also a number of other important child, parent, and environmental factors that can significantly affect the prevalence, type, severity, and chronicity of sleep problems (Owens, 2011). *Child variables* include temperament and behavior style, cognitive and language abilities, individual variations in circadian preference, and the presence of comorbid developmental, medical and psychiatric conditions (Meltzer & Crabtree, 2015). For example, Meltzer, Moore, & Mindell (2008) found that of 265 consecutive patients evaluated in a pediatric interdisciplinary sleep center, over half of the patients had comorbid medical diagnoses, 31% had comorbid psychiatric diagnoses, and over 33% had at least one behavioral problem. Sleep problems have been found to be comorbid with a number of psychiatric disorders, such as anxiety and depression disorders (Gruber et al., 2012), attention-deficit/hyperactivity disorder (ADHD), and autism (Owens et al., 2013; Malow et al., 2012), and physical disorders such as neuromuscular disorder (Mitchell, 2009), hypertension (Beebe et al., 2013), and obesity (Meltzer & Crabtree, 2015). Although the cause–effect relationship between sleep and emotional–behavioral disorders is not known, studies and case examples indicate that treatment of sleep problems often results in an improvement in a child's daytime functioning, including fewer behavioral–emotional problems and increased academic and social behavior functioning (e.g., Gruber et al., 2012; Ivanenko, Crabtree, & Gozal, 2004).

Parental variables that may affect a child's sleep include parenting and discipline style, psychiatric and physical problems, family stress, educational level, quality–quantity of parents' sleep, and parents' differing perceptions of their child's sleep (Bayer, Hiscock, Hampton, & Wake, 2007; Boergers, Hart, & Owens, 2007; Sadeh, Flint-Ofir, Tirosh, & Tikotzky, 2007). *Environmental variables* include aspects of the physical sleeping environment, such as space, noise, sleep surface, and bed sharing; family composition, such as number, ages, health status of siblings or extended family; and lifestyle issues, such as household rules, parental work status and work hours, competing priorities for time, and economic status (Adam, Snell, & Pendry, 2007; Pagel, Forister, & Kwiatkowki, 2007).

Various diagnostic systems offer criteria for sleep disorders, including the third edition of the *International Classification of Sleep Disorders* (ICSD-3; AASM, 2014), the Diagnostic Classification of Mental Health, the *International Classification of Diseases* (ICD-10-CM; Centers for Disease Control and Prevention, 2014a) and the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5; American Psychiatric Association [APA], 2013). Unfortunately, these offer few specific adaptations to diagnose sleep problems in children, and there are a number of differences across the systems. For example, ICSD-3 (AASM, 2014) has three distinct diagnoses in behavioral insomnia of childhood—sleep onset association type, limit-setting type, and combined type—and DSM-5 lumps these together under insomnia. Given its specific focus on sleep, the ICSD-3 understandably has a greater level of detail than either DSM-5 or ICD-10, but the latest revisions of these different classification systems have tried to be more consistent. The ICSD-3 also includes the ICD-10-CM codes with each of its diagnoses. Rather than try to resolve these discrepancies across classification systems, we focus in this chapter on the sleep disorders most commonly experienced by children. It should be noted that mild, moderate, and transient symptoms may not qualify for a diagnosis of sleep disorder.

In this section, we first review dyssomnias, disorders of initiating or maintaining sleep or of excessive sleepiness: hypersomnolence, narcolepsy, obstructive sleep apnea, restless-legs syndrome/periodic leg movement disorder, sleep-related rhythmic movement disorder, sleep-related bruxism, behavioral insomnia of childhood, insomnia, and circadian rhythm sleep–wake disorders. We then review parasomnias, which are REM-related sleep disorders (nightmares and sleep paralysis) and NREM-related sleep disorders (sleepwalking and sleep terrors), and sleeptalking, which occurs in both REM and NREM sleep.

Dyssomnias

Hypersomnolence

Hypersomnolence, or excessive sleepiness, may be the result of illness, medication, depression, poor nighttime sleep, narcolepsy, or sleep apnea syndrome (APA, 2013; Meltzer & Crabtree, 2015). If a child sleeps more than 2 hours longer than the average for his or her age, or requires daily naps beyond the preschool years, he or she may be suffering from excessive sleepiness. The behavioral signs of sleepiness usually include shorter attention span, reduced coordination, irritability, forgetfulness, fussiness, and general “laziness” (Ware et al., 2001). Teachers are usually the first to notice these problems, and a child is often described as performing poorly because of inattention, laziness, or overactivity. Such concerns warrant investigation of the child’s sleep patterns, especially if the child is both overactive and continues to take naps after the age of 5 years.

Viral infections and illnesses with a high fever leave a child feeling tired and sleepy, but these feelings subside as the child recovers from the illness. Some medications (e.g., antihistamines and drugs used to control seizures) can cause excessive sleepiness as a side effect. Inadequate sleep, poor-quality sleep, or inadequate deep sleep often result in daytime sleepiness. Depression in children can also result in excessive sleepiness, but this should be only one of a number of other behavioral symptoms. Treatment depends on the nature and cause of excessive sleepiness. In the absence of medication or psychopathology, structuring the child’s daily routines of sleep, eating, exercise, and social activities can be helpful in decreasing this problem.

Narcolepsy

In narcolepsy, the sleep system is uncontrolled. Although there is sufficient opportunity for sleep, nighttime sleep is usually disturbed by many wakings, and short periods of uncontrollable daytime sleep occur in unstimulating or physically inactive situations. The REM state most often begins immediately or within 10–15 minutes after falling asleep rather than after the normal 90 minutes (APA, 2013). There are also episodes of partial activation of the REM system at bedtime, on waking, and during the day. In addition to inappropriate sleepiness, other classic symptoms that occur in a significant majority of people with narcolepsy are *cataplexy* (sudden, brief loss of muscle tone without loss of consciousness, associated with strong emotions; e.g., laughter or fear), hypnagogic hallucinations (dream-like imagery before falling asleep, causing the child to believe that he or she is seeing or hearing things that are not present), and sleep paralysis (inability to move after waking up) (APA, 2013). Close to onset in children, genuine cataplexy can be atypical, affecting primarily the face, causing spontaneous grimaces or jaw opening with tongue thrusting, or present as low-grade, continuous hypotonia, resulting in a wobbly walk (APA, 2013). In most cases, narcolepsy progresses from excessive sleepiness to an inability to stay awake during the day to cataplexy and, for children with prepubertal onset, to sleep paralysis (APA, 2013).

Narcolepsy affects 0.02–0.04% of the general population. It is a persistent and lifelong neurological disorder. Risk factors include a strong genetic component, Group A streptococcal throat infection, winter infections, and influenza, particularly vaccine for pandemic H1N1 2009 (Szakacs, Darin, & Hallbook, 2013). These infections and the H1N1 vaccine are likely to trigger the autoimmune process, producing narcolepsy a few months later (APA, 2013). Although narcolepsy is usually first diagnosed in adults, onset is typically in young children and adolescents, with 16 years the peak age of onset (Nevsimalova, 2009).

Children are most likely undiagnosed due to the narcolepsy symptoms being confused with poor motivation, attention lapses, or adolescent delayed sleep onset (Meltzer & Crabtree, 2015). Onset can be progressive or abrupt with the severity greatest in children with abrupt onset, which is often associated with obesity and premature puberty, as well as aggression and other behavioral problems. Narcolepsy in infants and toddlers is extremely rare; however, it has been reported in 1- and 2-year-olds (Nevsimalova, 2009).

If there are any symptoms of narcolepsy, a child should be referred to a AASM-accredited sleep center. Evaluation should include a nocturnal polysomnogram (PSG) test, which involves an overnight sleep study, and a multiple sleep latency test (MSLT) in the laboratory, in which the child is presented with four to five opportunities to nap. Checking for a hypocretin deficiency, which involves a lumbar puncture, is the "gold standard" in the diagnosis of narcolepsy (APA, 2013).

Depending on the age of the child and the severity of symptoms, medications such as psychostimulants to promote daytime wakefulness and tricyclic antidepressants for muscle weakness have been prescribed (Meltzer & Crabtree, 2015; Viorritto, Kureshi, &

Owens, 2012). Some of these medications can result in further sleep disturbances and should be used with caution. Establishing a regular sleep schedule with consistent bedtime–wake times and one to two naps per day lasting 15 minutes have been found to prevent sleep deprivation (Meltzer & Crabtree, 2015). Educating the child and family, as well as teachers, is important, so that appropriate naps do not interfere with learning and the child is not put in situations that could cause accidental injury.

Obstructive Sleep Apnea

Obstructive sleep apnea (OSA), or the absence of breathing during sleep, can produce a sleep disturbance resulting in sleepiness during the day. Once a person is asleep, the upper airway closes off, so that the person cannot breathe for a short period of time and/or a partial obstruction occurs, which, over a long period of time, results in poor oxygenation and disrupted sleep. This results in frequent arousals from sleep, which increase the muscle tone to the neck and pharyngeal muscles, open the airway, and allow the person to resume breathing (AASM, 2014). These repeated chronic disruptions in sleep can occur up to several hundred times per night. Unlike other sleep disturbances, children with OSA cannot return to sleep following the resolution of the problem or even catch up on their sleep during the day, because the OSA is a constant component of their sleep pattern.

Studies of prevalence of children diagnosed with OSA show a range from 1 to 4% (AASM, 2014; APA, 2013; Lumeng & Chervin, 2008). The peak ages for children with OSA is 3–8 years, when the nasopharynx may be compromised by enlarged tonsils and adenoids. Other risk factors are obesity, oral or facial abnormalities (e.g., a markedly recessed chin or repaired cleft palate), and Down syndrome (Ware et al., 2001). Children with OSA present with very restless sleep, characterized by loud snoring, snorting or gasping for breath, and intervening silences. These children arouse frequently during the night, toss and turn, sweat, and may fall asleep during the day at inappropriate times (AASM, 2014). They may have a sore throat, dry mouth, or morning headaches, and they are at risk for the development of hypertension. These children do not usually complain of daytime sleepiness; rather, they have more behavioral problems (e.g., restless, oppositional, easily frustrated, irritable, aggressive, impulsive, hyperactive) and school/learning problems (Chamness, 2008; Marcus et al., 2012). Children who present with these symptoms should be referred to a primary care physician or a sleep physician for a physical examination.

Although OSA should not be diagnosed without PSG, the results are often difficult to interpret given the few normative studies in this age group. An MSLT is also usually done (Mindell & Owens, 2010). Treatment usually involves surgery to remove the airway obstruction, with tonsillectomy and/or adenoidectomy relieving symptoms in about 70% of all cases (Mindell & Owens, 2010). Other treatments may include weight loss or the possible use of nasal continuous positive airway pressure, which has been effective for OSA in adults.

Restless-Legs Syndrome and Periodic Limb Movement Disorder

Restless-legs syndrome (RLS) is a sensorimotor, neurological disorder characterized by a desire to move the legs or arms, associated with uncomfortable sensations (creepy, bugs crawling feeling, burning or itching); occurs at rest or quiet times, especially at bedtime; and is usually relieved by moving or rubbing the limb (AASM, 2014; APA, 2013). Approximately 2–6% of children and adolescents are reported to have RLS, and 71–80% of children with RLS are reported to have at least one parent with RLS, indicating both a strong genetic risk and a strong familial component (Picchietti et al., 2007, 2013). RLS is also associated with disturbances in the central dopaminergic system and disturbances in iron metabolism (APA, 2013; Durmer & Quraishi, 2011). The disorder can cause significant problems with falling asleep or returning to sleep after typical nighttime arousals and, in turn, the insufficient sleep can cause behavioral and cognitive/learning problems. The diagnosis of RLS is by patient report and history (AASM, 2014; APA, 2013).

RLS frequently occurs with the distinct but related disorder, periodic limb movement disorder (PLMD), which involves leg movements that occur only during sleep (AASD, 2014). Studies suggest that between 8.4 and 11.9% of children may have PLMD (Crabtree, Ivanenko, O'Brien, & Gozal, 2003). PLMD is often considered on a continuum with RLS, with 80–100% of people with RLS having periodic leg movement symptoms on overnight PSG (Gamaldo & Earley, 2006). Clinical studies suggest that PLMD may precede the diagnosis of RLS in children by an average of 11 to 12 years (Durmer & Quraishi, 2011; Picchietti & Stevens, 2008). Clinical indictors for PLMD in children include excessive sleepiness during the day despite sufficient sleep opportunity; a restless sleeper with sheets and blankets off the bed; and parental observations of their sleeping child having frequent twitches, or quick movements in the toes, ankles, or entire leg (Meltzer & Crabtree, 2015).

The diagnoses of RLS and PLMD in children have also been associated with narcolepsy, Tourette's disorder, ADHD, behavioral disorders, and cognitive deficits, as well as depression and anxiety (Chervin et al., 2002; Chervin, Dillon, Archbold, & Ruzicka, 2003; Pearson et al., 2006; Picchietti, England, Walters, Willis, & Verrico, 1998). Overall between 25 and 30% of children with ADHD fulfill criteria for RLS (Picchietti et al., 2007; Silvestri et al., 2009). This strong relationship between RLS and ADHD is complicated given that children with insufficient sleep mimic the symptoms of ADHD, and restlessness at bedtime due to ADHD may be attributed to RLS. A child with ADHD should be screened for RLS and signs of PLMD, and vice versa.

Children suspected of either RLS or PLMD should be referred to a pediatrician or sleep physician for an evaluation. PLMD can only be diagnosed with an overnight PSG but due to marked night-to-night variability in symptoms, more than a single-night PSG may be required (Trotti et al., 2009). The diagnosis of RLS is based on patient interview, and the child should be able to state in his or her own words the experience of symptoms, or draw how his or her legs feel, which may be particularly helpful for younger or less fluent children.

Treatment involves behavioral interventions including good sleep hygiene (i.e., regular sleep–wake routines and an appropriate sleep environment). Cognitive restructuring, relaxation techniques, and warm baths may also help promote sleep onset. Medically, iron supplements have been used to treat RLS and PLMD in children, and although there are no approved U.S. Food and Drug Administration (FDA) medications for children, dopaminergic agents have been successful in treating adults (Durmer & Quraishi, 2011; Mohri et al., 2012).

Sleep-Related Rhythmic Movement Disorder

Sleep-related rhythmic movement disorder is characterized by repetitive body movements, typically body rocking and head banging, which occur at sleep onset and following normal nighttime arousals, but they can occur at any time during the night (AASM, 2014). Episodes generally last less than 15 minutes. Body rocking usually begins around 6 months of age; head banging and head rolling are seen at about 9–10 months, with 60% of 9-month-olds engaging in these behaviors. These rates decrease to 33% at age 18 months and to 5% by age 5 years (AASM, 2014). It has been hypothesized that predisposing and precipitating factors may be self-soothing, environmental stress, or lack of stimulation. The self-stimulation of head banging, head rolling, and body rocking associated with blindness, intellectual disabilities, and autism should be distinguished from these behaviors in typically developing children. No treatment is suggested for a young child, but for safety reasons, the parents may be advised to pad the crib, have the child wear a helmet, or have the child sleep on a mattress on the floor either to prevent falling out of the bed or to decrease the noise of the rocking crib or bed.

Sleep-Related Bruxism

Bruxism, the repetitive grinding of teeth or clenching of jaws during sleep, can occur at any age and is very common among children; over 50% of typical infants (especially during teething) grind their teeth, but their grinding decreases over the lifespan, with 14–17% of children and 12% of teenagers engaging in this behavior (AASM, 2014). Bruxism can occur while an individual is awake or asleep; awake bruxism is considered a different disorder than sleep-related bruxism; however, the two disorders can occur in the same individual. Sleep bruxism occurs in NREM stages 1 and 2, and it is theorized to have underlying neurobiological factors and has been associated with stress, anxiety, ADHD, and other psychological and medical conditions (AASM, 2014; Shetty, Pitti, Satish Babu, Surendra Kumar & Deepthi, 2010). Bruxism is generally benign and resolves with time, but if the bruxism is severe, it may necessitate the use of a tooth-protective device. Persistent or severe cases resulting in headaches or jaw pain can be treated with biofeedback and stress management (Mindell & Owens, 2010).

Behavioral Insomnia of Childhood

Bedtime problems and/or frequent night wakings during sleep are the most common problems among infants and young children (Mindell, Kuhn, Lewin, Meltzer, & Sadeh, 2006). Frequent night wakings occur in approximately 10–30% of infants and toddlers. This is considered a *sleep-onset association* condition (nursing, rocking, parental presence) that is required for a child to fall asleep or return to sleep following normal nighttime arousals. It often occurs with the typical developmental stage of separation anxiety. Difficulties with getting to bed are also common and seen in 10–30% of toddlers and preschoolers. This is considered a *limit-setting* problem, with stalling and resistance to going to bed (temper tantrums, multiple requests for attention) and is associated with the developmentally typical stage of increasing independence and parental difficulty in setting/enforcing bedtime limits. Once asleep, children with this problem usually have few night wakings. These two problems often occur together, which is considered a *combined type* of behavioral insomnia (AASM, 2014). Despite different etiologies, researchers have usually considered them to occur together, and the same treatments are effective for both problems (Mindell et al., 2006). Both of these behaviors result in a child getting insufficient sleep, which can affect mood (e.g., irritable), cognitive development, and behavior (e.g., overactive, increased unintentional injuries). Bedtime struggles and night wakings also negatively affect the sleep of parents and/or other family members, which in turn effects their own well-being.

For many children and families, these nighttime struggles are transient, but for a significant number of children, the problems persist. For example, a longitudinal study of 500 Swiss children who were followed up to 10 years revealed that bed sharing and night waking during infancy were not predictive for bed sharing and night waking during childhood, but bed sharing and night waking during childhood tended to persist over time (Jenni, Fuhrer, Iglowstein, Molinri, & Largo, 2005). A longitudinal study of initiating and maintaining sleep that used both child and parent ratings at three time periods (average ages 9 years, 4 months; 10 years, 7 months; and 11 years, 7 months), found sleep onset problems in approximately 13.5% of the children according to parents' ratings, and 24% of the children according to children's ratings at each time period (Fricke-Oekermann et al., 2007). Of those children presenting with sleep-onset problems, about 60% continued to have the problem longer than a year. Pollock (1994) also documented the continuity of night wakings in a national British cohort of 5-year-olds, in which 25% were reported by parents to have sleep problems; these night wakings were associated with sleep problems at ages 6 months–10 years. Furthermore, children with night waking at age 5 were more likely to report recurrent headaches and stomachaches, eating and appetite problems, and temper tantrums.

Behavioral interventions are the most effective treatment for problems with initiating and maintaining sleep. These can include a variety of techniques, including *extinction* (rapid withdrawal of parental attention), modified extinction, gradual extinction, positive reinforcement of appropriate bedtime and sleep behavior, consistent bedtimes, *shaping* (making a gradually earlier bedtime), *cueing* (making a clear distinction between daytime and nighttime activities), and parent education (Meltzer & Crabtree, 2015; Meltzer & Mindell, 2014; Mindell et al., 2006).

Insomnia

Insomnia, a common complaint among older children and adolescents, is associated with initiating sleep, frequent/prolonged waking in the night, and/or early morning waking with an inability to return to sleep. The child often reports that he or she does not feel rested despite an adequate opportunity to sleep. In addition, the child has difficulty sleeping regardless of the time he or she goes to bed, which distinguishes insomnia from a circadian rhythm problem (APA, 2013). Diagnosing an insomnia disorder may be difficult, because the described symptoms may also be part of a more predominant mental disorder such as anxiety, depression, or ADHD; likewise, the insomnia may cause anxiety or depressive symptoms. It may also be the consequence of a medical problem such as pain, asthma, or other illness. If insomnia occurs with a major psychiatric disorder, then treatment of that disorder may result in improved sleep.

Regardless of the etiology of insomnia, children and adolescents who suffer from it and its negative consequences benefit from treatment. Although there are limited studies with children, behavioral interventions such as cognitive-behavior therapy, which are effective with adults, can be used for older children and adolescents (Edinger & Sampson, 2003). Interventions may include establishing good sleep habits, with a consistent bedtime and wake time; a wind-down time; limiting electronics 30–60 minutes before bed; stimulus control of the sleep environment; increased activity during the day; and cognitive restructuring for worry, ruminations, or unhelpful beliefs about sleep (Harvey & McGlinchey, 2015). There is evidence that despite adequate motivation, children and adolescents require parental and/or clinician assistance in regulating and maintaining healthy sleep schedules (Cain, Gradisar, & Moseley, 2011). The FDA has not approved any medication for insomnia in children, despite its widespread use in adults.

Circadian Rhythm Sleep-Wake Disorders

It is not until about 6 months of age that infants have sleep–wake patterns that are synchronized by the clock. Infants born prematurely or with perinatal problems tend to take longer to settle into a regular sleep–wake pattern (Moore & Ucko, 1957). Once a child has settled into a pattern, this pattern may be disturbed by a number of factors, including the inconsistency of the daily schedule, parental response to the waking child, illness, environmental changes, and emotional trauma, or the child's natural circadian rhythm schedule may be too early or too late for the child's or family's daily schedule. Sleep–wake disorders usually result in insufficient sleep and associated problems.

Prime clues that a schedule problem exists are that the child is not sleepy at bedtime or he or she gets up too early, and sleeps at irregular times. Other daily activities, such as eating or playing, are also likely to be irregular. This problem is differentiated from bedtime struggles or night waking, in that children cannot fall asleep or go back to sleep no matter what their parents do, because they are in the wake phase of the sleep–wake cycle. A consistent daily schedule is needed to solve this circadian rhythm disturbance, and most children respond fairly quickly, usually within a few weeks. However, some children with consistent schedules still have a disturbance of the total amount of sleep throughout the 24-hour period. Resolving these problems involves determining the total length of time the child sleeps per day, identifying factors that may be interfering with establishing a better pattern, and gradually changing the schedule.

The most common circadian rhythm problem affects adolescents who have a delayed sleep onset that is 2 hours or more later than the desired sleep-onset time (often between 1:00 and 3:00 A.M.); once they are asleep, the quality and stages of their sleep are normal. Most often, however, the delayed sleep onset will significantly interfere with their required daily sleep–wake schedule of waking up early for school. This can lead to excessive sleepiness or insomnia (or both), and is associated with depression and other mood problems, academic problems, truancy, substance abuse, and family conflict (AASM, 2014; Crowley, Acebo, & Carskadon, 2007). DSM-5 (APA, 2013) reports a prevalence of 7% in adolescents, and the AASM (2014) estimates that 16% of adolescents and young adults have this disorder. It should be noted that there is a continuum of severity of delayed-onset problems, and it is estimated that 40–50% of all adolescents get insufficient sleep due to social, school, and work pressures (National Sleep Foundation, 2014). A child with delayed sleep onset should be distinguished from a child who has insomnia without a circadian rhythm problem, in which he or she has difficulty initiating sleep regardless of the time he or she goes to sleep. There are a number of hypotheses regarding this delayed sleep phase, including intrinsic changes, such as a later timing of melatonin secretion onset and offset stages, a lengthening of the intrinsic circadian clock, and heightened sensitivity to evening light or decreased sensitivity to morning light (Jenni & Carskadon, 2005). Melatonin is the essential hormone regulating the sleep-wake cycle and its release is triggered by dim light two hours before sleep onset. Thus, behavioral changes such as late night TV watching or the use of electronic devices with bright-lit screens could directly interact with the circadian timing system and reinforce/strengthen the sleep delay (Jenni & Carskadon, 2005). Social events and school pressure can also exacerbate delayed sleep onset. This circadian rhythm change during puberty has resulted in calls for middle and high schools to start the school day no earlier than 8:30 A.M. (Adolescent Sleep Working Group, Committee on Adolescence, & Council on School Health, 2014). Although many societal factors make this difficult to accomplish (e.g., bus schedules, child care duties), reported benefits have included more sleep, better attendance and graduation rates, less substance abuse, fewer symptoms of depression, and fewer motor vehicle accidents (Wahlstrom et al., 2014).

Parasomnias

Parasomnias are abnormal behavioral, experiential, or physiological events that occur during entry into sleep, during sleep, or arousal from sleep. They can occur in both REM and NREM sleep. Normally, the conscious state of waking, NREM sleep, and REM sleep are stable and predictable, but the combination of one or more of these states can occur, leading to unstable states of altered consciousness resulting in parasomnias (AASM, 2014). The most common parasomnias occurring during childhood are the REM-related nightmares and sleep paralysis; the NREM-related disorders of arousal (confusional arousals, sleepwalking, sleep terrors); and sleeptalking, which can occur in both REM and NREM sleep. Nocturnal enuresis is also considered a parasomnia, but it is discussed in Chapter 4. Parasomnias are common among children, with up to 75% of all children experiencing at least one of these disturbances (APA, 2013), but they are generally benign. They have no clear etiology; are not associated with psychopathology; may be triggered by sound, touch, or other stimuli; and usually disappear with maturation (AASM, 2014).

Nightmares

Nightmares, which occur in the REM stage of sleep, are frightening dreams that wake a person and leave him or her with a feeling of profound fear and anxiety. They usually occur in the last third of the sleep period. Nightmares are different from sleep terrors, which are seen in NREM sleep and usually in the first third of the sleep period; they can easily be distinguished by the lack of physical activity during nightmares, alertness upon awakening, and the ability to recall in detail the dream content. Children are also very likely to talk about nightmares immediately after the event or in the morning. Nightmares are very common, with parent reports of up to 50% of all children between ages 3 and 6 years experiencing them (Mindell & Owens 2010). This may underestimate the prevalence of nightmares, however, given that children tend to report more nightmares than parents. Using a child self-report method, Muris, Merckelbach, Gadet, and Moulaert (2000a) found that 67.7% of 4- to 6-year-olds, 95.7% of 7- to 9-year-olds, and 76.3% of 10- to 12-year-olds said they had scary dreams. Although these data are from a cross-sectional study, they indicate that many children continue to have nightmares throughout childhood, which decrease in frequency over time. Only a small percentage of children are reported to have chronic nightmares (i.e., lasting more than 3 months; Schredl, Fricke-Oerkermann, Mitschke, Wiater, & Lehmkuhl, 2009). More children report having scary dreams in the early elementary school years than at other ages, but referrals for problems with nightmares are more common for preschoolers and adolescents.

Nightmares appear to reflect stresses experienced during the day, and their content represents a developmental sequence of fears and concerns. Preschool children, for example, report scary dreams about imaginary creatures, personal harm, or harm to others and animals; older children report dreaming about being kidnapped, as well as continuing to dream of imaginary creatures and personal harm or harm to others (Muris et al., 2000a). Stressful times and traumatic events can also exacerbate nightmares, and they are often associated with posttraumatic stress disorder (PTSD). In a longitudinal study, children who continued to report nightmares for 2 years showed more psychopathological symptoms, emotional problems, hyperactivity–inattention, and conduct problems (Schredl et al., 2009). Nightmares occurring immediately following a physical or emotional trauma or later, after experiencing PTSD, have been reported during NREM sleep, especially stage 2, as well as during REM sleep and at sleep onset. These are often a realistic reliving of the traumatic event or some elements of it. Some medications (e.g., beta-blockers and antidepressants) are associated with having nightmares, and withdrawal from other medications (e.g., barbiturates, benzodiazepines) can cause nightmares (AASM, 2014).

Whereas nightmares per se are not seen as pathological, they can result in disturbed sleep and fear of going to bed. Frequent or persistent nightmares may reflect inordinate stress during the day or a traumatic event and should prompt an inquiry about other problems.

Sleep Paralysis

Sleep paralysis, which occurs at the onset of a child's sleep or upon awakening, is distinguished by not being able to make voluntary movements for a few seconds or minutes. Ware et al. (2001) explain this phenomenon as being related to REM sleep when the person actually awakens, but the paralysis that accompanies REM sleep remains. Though temporary and not harmful, it can be a frightening experience, especially if it is accompanied by hallucinations, which occur 25–75% of the time. The prevalence of the problem in children is not known. It is a problem that often runs in families and may be precipitated by sleep deprivation and irregular sleep–wake schedules (AASM, 2014). Movement can usually be restored by rapid eye movements or the touch of another person. No treatment other than reassurance is usually necessary. Treatment of the irregular sleep–wake schedule may be warranted. Sleep paralysis may be associated with narcolepsy, so this connection should be considered when one is evaluating either problem.

Partial Arousals

Confusional arousals, sleepwalking, sleep terrors, and sleeptalking are all variations of partial or incomplete arousals from deep sleep (NREM stage 3). During these events, states of sleep and wakefulness coexist and are mixed with one another. These events can range from mild (e.g., calm mumbling, a few awkward movements) to intense (screaming, agitated flailing, running). Since children are in deep sleep 1–3 hours after sleep onset, these problems usually occur when a child is making the transition from these deep stages to a lighter stage of sleep or REM sleep. Most of these problems occur during the preschool years and decrease with age, as the number of deep sleep stages drops off in adolescence. There is no evidence that partial arousals result from psychological problems, but they can be precipitated by overtiredness or insufficient sleep, which can be exacerbated by sleep disruption, erratic schedules, changes in sleep environment, illness, high fever, stress, other sleep disorders (e.g., OSA), and some medications (e.g., sedative/hypnotic drugs, and psychotropic drugs, such as anticholinergic agents, phenothiazines; AASM, 2014). A genetic component appears to play a role in sleep arousals. In addition, many children exhibit both sleep terrors and sleepwalking, indicating a unitary underlying pathophysiology (APA, 2013). Children are not easily awakened; they wake in a state of confusion and do not remember the event in the morning.

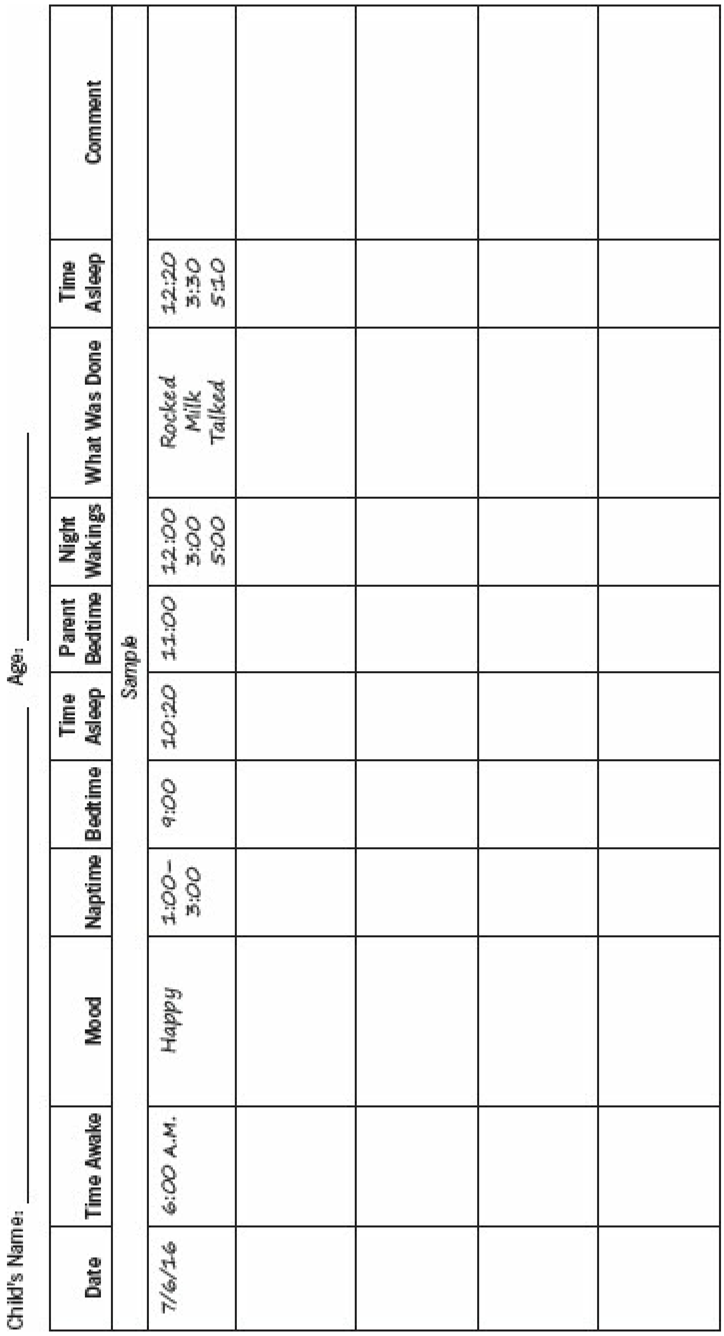
Confusional Arousals

Confusional arousals are characterized by sitting up in bed and looking around in a confused state, followed by confused or slow thinking, disorientation relative to time and place, and perceptual impairment. While complex motor behavior is absent (they occur in bed), automatic behaviors such as picking at clothes and linens, thrashing in bed, and using objects inappropriately may occur. They typically last from 1 to 10 minutes. Prevalence rates in children ages 3–13 years are approximately 17% (AASM, 2014). Although distinct from sleepwalking and night terrors, confusional arousals can evolve into these other behaviors (AASM, 2014). Parents should be reassured that these episodes are considered benign and cautioned that interrupting the event can increase agitation and possible injury.

Sleepwalking

Although sleepwalking usually occurs in the deep stage of NREM sleep in the first third of the night, it can occur at other times. It is often preceded by a confusional arousal. Most children sit up in bed with a glassy stare and may walk for a few seconds to several minutes or do something unusual, such as urinate in a closet. It is estimated that 10–30% of children have at least one episode of sleepwalking, and 2–3% walk often, with a mean age of onset of 5–6 years (APA, 2013). A sharp noise or standing the child on his or her feet can precipitate an episode. If sleepwalking occurs in the early morning, when stage 3 sleep is less concentrated, it may suggest a seizure disorder (Ware et al., 2001). Other sleep disturbances (e.g., OSA, which decreases the quality of sleep) may be present and contribute to the sleepwalking. Management of the sleepwalking episode should include preventing accidents; calmly leading the child back to bed; and, if the child is agitated, doing nothing until the child is calm. Interrupting the partial arousal by waking the child 30 minutes before the expected sleepwalking episode, as determined from a Sleep Diary (see Figure 5.1), for 1 month has also been found to eliminate the problem (Frank, Spirito, Stark, & Owens-Stively, 1997).

Sleep Diary



Child's Name: ______________________ Age: __________

Date	Time Awake	Mood	Naptime	Bedtime	Time Asleep	Parent Bedtime	Night Wakings	What Was Done	Time Asleep	Comment
Sample										
7/6/16	6:00 A.M.	Happy	1:00– 3:00	9:00	10:20	11:00	12:00 3:00 5:00	Rocked Milk Talked	12:20 3:30 5:10	

FIGURE 5.1. Chart for recording periods of sleep.

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Sleep Terrors

Sleep terrors usually occur within 15–90 minutes of sleep onset. They are characterized by intense sudden arousal; a piercing, panic-stricken scream; rapid pulse and respiration; profuse perspiration, and a glassy stare. The child often has strange fears with a compulsion to escape, incoherent vocalizations, and is inconsolable. They usually end quickly, with the child becoming calm and continuing to sleep, but they can last up to 30–40 minutes. Sleep terrors are most common in preschool children, with reports of 25% of children under 5 years. Overall prevalence rates for children are 1–6.5% and tend to decrease spontaneously by early adolescence (AASM, 2014). Sleep terrors usually resolve with central nervous system maturation and occur less frequently than sleepwalking.

During sleep terrors, it is difficult to awaken the child, and he or she has no memory of the episode. Parents are usually very frightened when sleep terrors occur in their children, and they should be given information and reassurance. During a sleep terror episode, parents should be encouraged simply to keep the child safe, since consolation or trying to awaken him or her usually does not help. It is also not wise to discuss the sleep terror episodes in any detail with the child, since this might increase his or her fear of going to sleep. Awakening the child 30 minutes prior to the sleep terror (as determined by keeping a Sleep Diary for 1 month) also disrupts the partial arousal and may eliminate the problem, as with sleepwalking (Durand & Mindell, 1999). Melatonin, which regulates the day–night and sleep–wake cycles, was successful in treating a 36-month-old child who had four to five night terrors a night (Ozcan & Donmez, 2014).

Sleeptalking

Somniloquy, or spontaneous speech during REM or NREM sleep, is a very common behavior, with reports in the general population as high as 50–60% (AASM, 2014). Sleeptalking appears to be associated with sleepwalking and nightmares, and is not associated with pathology. Although it is rarely a major problem, decreasing factors that increase partial arousals (e.g., fatigue, stress, caffeine) should improve this problem.

ASSESSMENT OF SLEEP PROBLEMS

A sleep disturbance may represent an isolated problem or it may become evident in the process of evaluating other behavioral or emotional problems. Sleep problems are significantly associated with many psychiatric and medical disorders; thus, a screen for sleep problems should be included in the assessment of all childhood problems, including medical conditions. The General Parent Questionnaire (see Appendix B) also includes several questions about quantity and quality of sleep. The importance of sleep in children's developmental and medical conditions is illustrated by the 2016 coordinated publications on sleep by three prestigious journals: *Journal of Pediatric Psychology*, *Clinical Practice of Pediatric Psychology*, and *Journal of Developmental and*

Behavioral Pediatrics. The goal of the coordinated effort was to highlight new discoveries, encourage more research on sleep, and provide guidance in the treatment of medical and developmental concerns (Beebe, 2016). Together these journals published over 30 articles on the role of sleep in conditions as diverse as cancer, diabetes, ADHD, and the effects of physical activity on sleep.

Due to the multidimensional nature of sleep problems, a variety of measures are used in sleep assessment, including a Sleep Diary, parent and child questionnaires, PSG, MSLT, and actigraphy. A Sleep Diary is the primary tool in the subjective assessment of sleep and should be completed by the parent or, when appropriate, an older child. Although sleep diaries differ, the basic information collected over a 24-hour period should include bedtime, time of lights out, sleep-onset latency, frequency and duration of night awakenings, wake-up time, time out of bed, and nap time (Meltzer & Crabtree, 2015).

The PSG is an overnight sleep study (1–2 nights) to examine sleep stages, breathing quality, periodic limb movements, and arousal during sleep. It is the "gold standard" for the diagnosis of OSA and PLMD. The MSLT done in a sleep laboratory is used to assess daytime sleepiness, especially for narcolepsy, and consists of four to five 20-minute naps. The actigraph is a watch-size activity monitor worn on the wrist (or ankle in infants) that provides accurate estimates of sleep patterns for extended periods of time (1–2 weeks), and supplement a Sleep Diary. It is especially helpful when parents have difficulties giving history (Meltzer & Mindell, 2009), and it tracks multinight sleep patterns in the child's natural sleep environment. The PSG, MDLT, and actigraphy have limitations given that they are used in the laboratory or require expensive equipment; thus, they are reserved for the more significant problems.

The assessment process described here follows the steps for gathering information in accordance with the Comprehensive Assessment-to-Intervention System (CAIS; see Chapter 2), with a focus on sleep problems.

Step 1: Initial Contact

The parents should be asked to complete a general questionnaire (e.g., our General Parent Questionnaire; see Appendix B) with demographic information, as well as their view of the problem and what they have been told and/or have done thus far. The Child Behavior Checklist (CBCL; Achenbach, 2013; Achenbach & Rescorla, 2001a, 2001b) screens for general behavioral–emotional problems; the Eyberg Child Behavior Inventory (ECBI; Eyberg & Pincus, 1999) determines the extent of problems in daily activities, as well as around bedtime; and the Parenting Stress Index, Fourth Edition (PSI-4; Abidin, 2012) gives information on the child's temperament and the parents' general levels of stress. In addition, parents should be asked to complete a Sleep Diary (Figure 5.1) for 1–2 weeks prior to the initial visit, to gather specific information on the child's sleep pattern and the parents' response to it. The importance of a Sleep Diary for assessing the problem and determining the effectiveness of treatment cannot be overemphasized.

There are also several psychometrically sound, one- to two-page questionnaires that have been developed to look specifically at sleep (see Lewandowski, Toliver-Sokol, & Palermo, 2011, for a review). Three we have found useful across the age ranges are (1) the Brief Infant Sleep Questionnaire (13-item parent report; Sadeh, 2004) for ages birth–29 months, which assesses sleep-onset time, sleep duration, night waking, and nocturnal wakefulness; (2) the Children's Sleep Habits Questionnaire (CSHQ; 35-item parent report; Owens, Spirto, & McGuinn, 2000) for ages 4–10 years includes a measure of daytime sleepiness and has been used with the widest variety of populations (e.g., children with autism spectrum disorder, ADHD, and intellectual disabilities); and (3) the Pediatric Sleep Questionnaire (PSQ; 22-item parent report; Chervin, Hedger, Dillon, & Pituch, 2000) for ages 2 to 18 years with subscales for snoring, sleepiness, and behavior (see Appendix A for descriptions). Arbuckle et al. (2010) developed a semistructured interview for children age 9 years and older that assesses pediatric symptom severity for RLS and its effect on sleep and wake activities, as well as emotions and tiredness. This format also uses a visual analogue scale and freehand drawings, which may be particularly helpful for younger or less fluent children.

Step 2: Initial Intake Interview

Parent Interview

The parent interview should be developmentally appropriate and culturally sensitive, with a focus on both sleep and waking behavior. It is important that both parents attend the initial interview, as they are likely to perceive and handle sleep problems differently. Although parents are the primary source of information for sleep problems in younger children, it is important to directly interview children 8 years of age and older, as they are likely to be able to describe the problem more accurately.

The focus of the parent interview should be on the child's general development and behavior; a history of the sleep problem, as well as its current status; the environmental/social context of the problem; and the parents' level of stress. Specific questions include the following:

1. *Development*. What is the child's birth history? Was the child premature, or were there perinatal risk factors? Were developmental milestones achieved normally?

2. *Behavior*. The screening instruments give information in this area, and the interview should follow up on any concerns, especially noncompliance. About one-third of children presenting with sleep problems also have more generalized behavior

problems. The clinician must determine whether these other behaviors should be treated first, or whether treatment of the sleep problem will aid in the resolution of the other problems. Given the impact that a sleep problem may have on the child and family, and the parents' desire to get help with this problem, it is usually best to focus initially on the sleep problem, unless the child is generally noncompliant. How the parents have handled behavior problems in general can provide helpful information on structuring the intervention.

3. *Medical history*. What illnesses has the child had (e.g., chronic ear infections, asthma, allergies, seizures, atopic eczema, other chronic illness)? A history of medication, including over-the-counter medication use, is especially important to obtain. Is the child taking (or has he or she recently stopped taking) any medication, such as antihistamines, seizure medication, sedatives, or stimulants? Has the child ever had a head injury? Disturbed sleep has also been associated with a number of medical disorders, such as cancer (Daniel, Schwartz, Mindell, Tucker, & Barakat, 2016), and juvenile idiopathic arthritis (Yuwen et al., 2016).

4. *History of the sleep problem*. Information about the onset of the sleep problem helps to differentiate between developmental and pathological problems, and gives potential information on any associated events. Have there been changes in the child's daily routine (e.g., starting preschool or a new school, the birth of a sibling, moving to a new bed or bedroom)? Have there been changes in the family routine (e.g., an illness or hospitalization; unusual parental absence; a death, divorce, overnight guests, vacation)?

5. *Current sleep status*. This should include information about the sleep environment, bedtime routines and behavior, behavior during the night, and daytime behavior. The Sleep Diary provides a good starting point for gathering information on a particular problem. The following list of questions might not apply to all cases, but the clinician should be aware of the behaviors that signal a particular type of problem: Where does the child sleep? Is the child expected to go to sleep when the house is full of activity? Are daytime activities (e.g., use of technology or TV) sufficiently separated from nighttime activities (quiet time)? What is the temperature in the room, and is it lit? What is the bedtime routine and when does it start? What snacks are given before bed (e.g., caffeinated beverages or chocolate and sweets vs. a light snack of milk or yogurt that improve sleep)? Are there problems with initiating sleep? When does the child get in bed, and when does he or she actually go to sleep? Are there night wakings? What is the child's wake-up time? Is the child difficult to awaken or slow to get started? Is the bedtime unrealistic for the child's age (too early or too late with regard to time of arising)? How many naps are taken during the day, how long are they, and are they taken at regular times? What is the child's total sleep time? How is sleep distributed over 24 hours?

For some events, such as sleep terrors, it is important to determine the actual clock time of the events and their timing in relation to sleep onset. The clinician should also determine the frequency of occurrence (has the problem increased, and if so, in what way?) and the nature of the sleep behavior (what does the child do, and how does he or she look while asleep?). Are there other sleep-related behaviors (e.g., sleepwalking, sleeptalking, enuresis, head banging, or rocking)? The presence of other sleep problems should be assessed. *OSA*: Does the child snore, stop breathing, gasp for breath, have headaches? *RLS/PLMD*: Does the child complain of pain or discomfort in the legs primarily at bedtime? Does he or she kick, jerk or twitch during sleep? *Narcolepsy*: Is the child sleepy during the day? When does this occur? Are there complaints about irritability, inattentiveness, hyperactivity, or laziness? Finally, is the child anxious or worried about the problem?

6. *Daytime activities*. What is the child's daytime schedule? Is it regular? Does the child's schedule include regular exercise, and if so, when does it occur? Are meals at regular times? Are meals or exercise occurring too close to bedtime?

7. *Family sleep history*. Do other members of the family have similar sleep problems? If so, what was their course, how were they treated, and how were they viewed?

8. *Parents' response to the sleep problem*. How have the parents handled the problem? What advice have they been given? What have they tried, and for how long? What have they told the child? How is the problem affecting other people in the family? How anxious are the parents about the problem? Why are they seeking help now?

9. *Parental/social/environmental issues*. The General Parent Questionnaire and the PSI-4 should alert the clinician to potential contributing problems in these areas. Problems such as unaccustomed parental absences, maternal depression, marital/couple conflict, hospitalization of a family member, or the birth of a sibling can precipitate or exacerbate a sleep disturbance. Information about the parents' mental and physical health status, support networks, the family's daily routine, and the home environment can shed light on what may be maintaining the problem.

Child Interview

Depending on the type of sleep problem, the age of the child, and the presence of other problems, a separate interview with the child may be indicated. Generally, it is not helpful to interview a preschool-age child alone; a school-age child who is having sleep problems, however, may be interviewed alone. The focus should be on the child's general adjustment to friends, school, and family, as well as his or her perceptions of the sleep problem. Coverage of the problem should include a description of what it is, how often it occurs, how the parents have viewed and handled it, what the child has done to resolve it, and how the child views it. Some questions include the following: At bedtime or in the morning, do you feel that you can't move your body if you have to? Do you see images or figures when falling asleep or waking that you know are not there? When you laugh or get really angry, do your muscles feel weak?

Step 3: Observation of Behavior

The Sleep Diary serves as the source of observational data for sleep problems. If a referral is made to a sleep disorders center, then further observation will be done in that facility. There are also new technologies that can be employed in the home, such as actigraphy.

Step 4: Further Assessment

Further assessment is indicated if the child or family present with problems beyond those associated with the sleep problem. If the child has trouble in school, for example, or has other emotional–behavioral problems, it is important to evaluate these areas. If there are marital/couple problems, or if there is evidence of parental psychopathology, these should also be assessed or referred for evaluation.

Step 5: Collaboration with Other Health Care Professionals

The child should have had a recent physical examination. If there are medical problems, or the child is or has been taking medication, it is important for the clinician to contact the pediatrician. If the child is taking sedatives for the sleep problem, then the clinician should coordinate with the pediatrician regarding discontinuing them before behavioral treatment begins. For problems such as allergies, asthma, or seizures, for which treatment often involves medication that can cause sleep problems, it may be possible to make changes in the medication, the dose, the time of dose, or the medium in which it is delivered. If the child has been taking antibiotics, for example, the sleep problems may be caused by additives in the medium in which the antibiotics are given.

If there is any suspicion of narcolepsy, PLMD, or OSA, the child should be referred to a sleep disorder center for possible PSG or MSLT. A referral to a sleep disorder center is also appropriate if a sleep problem is severe or persistent and unresponsive to treatment.

Step 6: Communication of Findings and Treatment Recommendations

In an assessment that has followed the CAIS, problems (and the focus of treatment) may have been identified in the child’s development, in the parents’ perceptions and handling of the problem, in the environment, in medical issues, and/or in the consequences of the problem for the child and family. The nature of the sleep disturbance, the clinician's view of the problem, and possible treatment strategies should be shared with the parents. The clinician should also discuss the implications of the sleep problem for the child's development in other areas (e.g., independence, mastery). In the treatment of a sleep disturbance, the clinician is primarily a consultant to the family members who will implement the treatment program at home. Giving parents information on normal sleep states and patterns, with an emphasis on how their child's disturbance fits into this process, can both relieve the parents' fears about the problem and ensure their understanding and cooperation in selecting and carrying out appropriate treatment strategies. The parents' clear understanding of the nature of the problem and the rationale for the treatment plan is essential to gaining their trust and cooperation.

TREATMENT OF SLEEP PROBLEMS

Interventions for sleep problems are carried out by the parent and also involve the child's cooperation. This can present obstacles given that it often requires changing daytime, as well as nighttime routines, the behavior occurs at night when the parent is tired or has other things to do, and the parent and, often the child, have to be motivated to make the changes, especially when the changes can be very difficult. Furthermore, the parent or the older child has to record progress so that, if necessary, modifications can be made to the treatment plan. Factors related to the parents can influence the course of treatment for any problem, but this is particularly true for sleep problems. A mother who is depressed, for example, or a parent who is recovering from a serious illness, is not in the best position to insist that a 2-year-old sleep in his or her own bed when the child wakes in the middle of the night. To recommend that the parent do this without consideration of his or her own emotional state is likely only to make the problem worse. It is best to support such a parent in getting personal help or recovering from the illness before helping the child to sleep alone. In the meantime, it is better for the parent to handle the behavior in a consistent manner, such as lying down with the child *every* night as the child goes to sleep or allowing the child to sleep with a member of the family. However, parents also should be encouraged to set regular and appropriate bedtime schedules with appropriate bedtime routines.

Behavioral interventions for sleep problems in children have been shown to be effective, safe, simple (easy to do), and inexpensive (Harvey & McGlinchey, 2015). We focus in this section on treatment approaches that are appropriate for the more common sleep disturbances: prevention, healthy sleep habits, behavioral insomnia of childhood (bedtime struggles and night waking), sleep–wake schedule problems for children, and bedtime fears and nightmares. The information on the treatment of other sleep problems is shown in Table 5.2, and was also covered in the description of these disorders at the beginning of the chapter (for a more in-depth discussion of treatment strategies, see Harvey & McGlinchey (2015); Meltzer & Crabtree (2015). Meltzer and Crabtree provide detailed information and parent handouts on important sleep issues and the treatment of childhood sleep problems.

TABLE 5.2. Methods for Managing Children's Sleep Problems

Sleep problem	Treatment	Description
Dyssomnias: Difficulties in initiating or maintaining sleep or daytime excessive sleepiness		
Bedtime struggles, night waking, or early rising	Information	Give information on appropriate sleep for age, reasons for night waking (REM–NREM cycles), and importance of bedtime routines and of learning to fall asleep independently.
	Bedtime routine	Establish consistent unstimulating bedtime routine beginning about 30 minutes prior to bedtime (e.g., bath, story) that always leads to bed in a dimly lit, cool bedroom. No TV or technology 60 minutes before bed.
	Unmodified extinction	Let child know that after bedtime routine you will not come back into the room. Ignore all crying and tantrums. Go into the room only if child is sick or hurt, and have minimal interaction. Take the child back to bed if he/she leaves the room.
	Modified extinction	Parent stays in the room, but has minimal interaction with the child. Systematically and gradually move closer to the door over successive nights.
	Gradual extinction	Have parents check on the child after progressively longer periods of time, until child falls asleep on own. For early morning rising, wait to go to the child for progressively longer periods of time.
	Scheduled waking	For children with frequent night wakings, have parents wake them 15-30 minutes before usual awakening. This teaches them to go back to sleep on their own when aroused from deep sleep.
Insomnia	Information	Provide child and parents with information on sleep regulation: circadian rhythms and homeostatic process.; predisposing factors (e.g., family history, anxiety); precipitating factors (e.g., live events, environmental, medical, psychological); perpetuating factors (e.g., napping, time in bed, anxiety/worry about falling asleep/consequences).
	Structure daily activity	Consistent sleep–wake-up times, eating, exercise, and social activities.
	Good sleep habits	No electronics 60 minutes before bedtime, cool, dark

		room.
	Stimulus control of sleep	Recondition bed–sleep association.
	Cognitive restricting	Identify dysfunctional attitudes/beliefs associated with sleep and adaptive alternative thoughts.
Circadian rhythm sleep–wake schedule	Information	Give information on the effect of the circadian rhythm on sleep–wake cycle, appropriate sleep for age, and importance of routines 30 minutes before bed (e.g., bath, reading a book) that leads to bed in a dimply lit, cool room. No TV or electronics 60 minutes before bedtime.
	Daytime routine	Establish consistent routine regarding arising, eating, exercise, activities, and bedtime to conform to night and day. Do 7 days a week.
	Bedtime fading	Find time child consistently falls asleep, then systematically make bedtime 15–30 minutes earlier every 2–3 days until child is falling asleep at desired time.
Delayed sleep phase for adolescents	Information	Give information on the circadian rhythm, its delay in adolescents, and how insufficient sleep can affect mood, behavior, and performance level.
	Daily schedule	Check for social and school pressures, and the time that the child has to arise during weekdays. Need to keep a consistent sleep onset and rising time 7 days a week, or no later than 1 hour on weekends.
	Bedtime fading	Find time that child consistently falls asleep, then systematically make bedtime 15–30 minutes earlier every 2–3 days until child is falling asleep at desired time.
	Bright light therapy	Commercially available bright light to be used in the morning at a specified time. This helps with circadian rhythm wake times.
	Chronotherapy	Find time the child falls asleep, move the circadian rhythm forward (i.e., later each day). For delayed sleep onset, this allows for larger shifts in sleep timing then bedtime fading.
	Melatonin	If appropriate, physician should prescribe.
Excessive sleepiness	Information	Give information about appropriate sleep for age, after ruling our medical or psychological problems that could affect the quality of sleep (e.g., medicine, narcolepsy, sleep apnea).
	Establish daily routines	Eating, sleeping, exercise, and social activity routines should be consistent.
Narcolepsy	Information	Give information on the disorder and its effects on the

		child.
	Establish sleep schedule	Bedtimes and scheduled short naps should be consistent.
Sleep apnea	Information	Give information on the disorder, its effects on the child, and lack of relationship to SIDS.
	Medical	Surgery to remove airway obstruction (e.g., tonsils, adenoids). Continuous positive nasal airway pressure to keep airway open.
Restless-legs syndrome/periodic limb movement disorder	Information	Give information on the disorder(s), including family history of problems and its effect on the child.
	Iron supplement	Determine whether child could benefit from an iron supplement.

Parasomnias: Problems that occur during sleep or at transition from sleep to wakefulness

Nightmares	Information	Describe where nightmare fits into sleep cycle. They can be part of naturally occurring developmental fears, but can also be caused by stressors or a daytime event.
	Support for child	Parents should have child describe nightmare; use a night light and be calm but firm that nothing will happen to harm the child; explain dreams versus reality.
	Progressive relaxation	Teach relaxation skills and pair with pleasant imagery at bedtime and upon waking in the night.
	Systematic desensitization	Build a fear hierarchy and gradually pair items with relaxation and pleasant imagery. Have child practice at bedtime.
	Coping skills	Have the child play out fear or nightmare and take an active role in vanquishing the fear.
	Contingency management	Reward child for using coping skills and staying calm for progressively longer periods of time.
Confusional arousals	Information	Explain how confusional arousals fit into the sleep cycle and co-occurrence with other partial arousals. Give parents reassurance and information on not interrupting or discussing with child in the morning.
Sleep terrors	Information	Explain how sleep terrors fit into the sleep cycle; illness, high fever, and fatigue can increase occurrence; stress the importance of keeping the child safe, not interrupting and not giving details of the episode to the child.

	Scheduled waking	Have parents awaken child 30 minutes before usual time of night terror.
Sleeptalking	Information	Explain that sleeptalking is innocuous but that fatigue, stress, and/or caffeine can increase it.
Sleepwalking	Information	Give information about the problem and the need for accident prevention. Parents should calmly return child to bed. Don’t interrupt or discuss in the morning.
	Scheduled waking	Have parents awaken child 30 minutes before expected episode for 1 month.
Sleep paralysis	Information	Explain nature of problem and give reassurance. Parents should encourage eye blinks or give light touch to restore movement. A regular sleep schedule can decrease occurrence.
Rocking and head banging	Information	Explain the normal progression of the behavior and its probable causes.
	Protective measures	Have parents pad the crib, use a helmet, or have the child sleep on a mattress on the floor.
Sleep bruxism	Information	Discuss possible sources of stress.
	Tooth-protective device	Have child wear device to reduce pressure and protect teeth.
	Biofeedback and stress management	Use in cases in which headache or jaw pain persists.

Note. Data from Durand, Mindell, Mapstone, and Gernert-Dott (1998); Mindell and Owens (2010); Meltzer and Crabtree (2015).

Parent Education/Prevention

One approach to sleep disturbances is to prevent their occurrence through parent education during the prenatal period or during the child’s first 6 months. Several studies provide strong evidence that this might be the most economical and time-efficient approach to behavioral-based pediatric sleep problems (e.g., Pinilla & Birch, 1993; St James-Roberts, Sleep, Morris, Owen, & Gillham, 2001). These programs focus on establishing positive sleep habits and include strategies such as bedtime routines, consistent sleep schedules, parental handling during sleep onset, and parental response to nighttime wakings. Almost all programs recommend putting babies to bed drowsy or partially awake to help them develop independent sleep initiation skills at bedtime and during nighttime wakings. Furthermore, the *Back to Sleep* campaign, which promoted placing infants on their backs to sleep, reduced deaths from sudden infant death syndrome (SIDS) by approximately 50% (American Academy of Pediatrics [AAP], 2016). The AAP expanded these recommendations, now called the *Safe to Sleep* campaign, to include (1) placing the infant on his or her back to sleep; (2) providing a firm surface without soft bedding (including bumpers, pillow, quilts); (3) breast feeding; (4) using a pacifier to promote sleep onset; (5) room sharing, not bed sharing; (6) avoiding overheating; and (7) avoiding exposure to tobacco smoke, alcohol, and other drugs.

Many parents lack information on healthy sleep habits. A survey of 193 parents of children ages 3 months–12 years on child sleep habits, basic sleep knowledge, and beliefs and attitudes regarding sleep as a health behavior found that 42% of children did not have a consistent bedtime, 43% had a bedtime later than 9:00 P.M., 76% had a television in their room, 69% frequently fell asleep with an adult present, and 18% had daily caffeine intake (Owens, & Jones, 2011)! All intervention programs should ensure that parents understand what constitutes healthy sleep habits and the importance of following them to promote their child's well-being.

Meltzer and Crabtree (2015) outline what constitutes good sleep habits:

1. A *consistent sleep schedule every night,* including the same bedtime and wake-up time every night of the week, and on weekends, holidays, or vacations, no more than 1 hour later. Consistent sleep schedules keep the circadian rhythm and homeostasis in balance, and irregular sleep schedules can result in bedtime battles, problems initiating sleep, problems getting up, and insufficient sleep.

2. An *age-appropriate bedtime* that takes into account the sleep requirements of the child and the time the child has to get up in the morning (e.g., school-age children who have to be up by 7:00 A.M. for school should have a bedtime between 8:00 and 9:00 P.M.).

3. A *consistent bedtime routine* that should be easy to implement and signals that it is almost bedtime, with the child in bed at the end of the routine. For infants, it is important to follow a routine (feeding, changing the diaper) that ends with placing the partially awake or drowsy child in the crib; preschool children's routine should be simple, with relaxing activities such as a bath, brushing teeth, reading a story or singing a song; school-age children can prepare for bed and hear/read a story, and adolescents can read for 10–15 minutes.

4. The *sleep environment* should be consistent all night (e.g., no light or nightlight), sound (e.g., fan, silence), presence of stuffed toy or blanket, and absent parent. If children fall asleep independently, they are more likely to return to sleep independently during night wakings.

5. *No electronic devices or TV/videos* in the bedroom, and stop viewing electronic devices at least one hour before bedtime.

6. *Limit caffeine* intake entirely or limit it in the afternoon and evening.

Behavioral Insomnia of Childhood

Treatment of bedtime struggles and night wakings involve empirically supported interventions that focus on helping the child learn independent bedtime ("self-soothing") behaviors. A review of studies using these interventions show an average 82% significant improvement rate, and almost all of the cases show some improvement (Meltzer & Mindell, 2014; Mindell et al., 2006). The Sleep Diary should be kept throughout the treatment process, and although it might not "feel" like the crying is decreasing, it will help the parents see the decrease in time crying (e.g., from 45 minutes to 30 minutes).

Unmodified Extinction

One of the most effective interventions, unmodified extinction, involves putting the child to bed at a designated time, then ignoring any crying or tantrums until a set time in the morning (i.e., not talking to the child, not going back into the child's room, and closing the door; parents can monitor for illness or injury). This requires consistency no matter how long the crying lasts, and the parents have to consistently ignore it every night. This "cold turkey" or "cry it out" approach can be stressful, and if the parents have any doubt about carrying it out, they should not do it; if they go into the room, the child learns to cry longer the next time. If they choose this method, they should plan what they will do to help them ignore the crying (e.g., call a friend, take a bath). There is no evidence that this harms the child emotionally or ruins the parent–child relationship. In fact, it has been shown that security, emotional tension, and likability actually improved after treatment (France, 1992; Mindell et al., 2006)! It usually takes three to five nights, with the second night worse than the first night. Parents should be prepared for spontaneous remission, especially after a child has been ill or the schedule has changed (e.g., vacations). Continued ignoring will quickly decrease the crying in a night or two and strengthen the child's ability to self-soothe at bedtime. While rare, a parent should be prepared if a child throws up, by putting two sets of sheets on the bed/crib separated by a pad and extra pajamas, so that changing clothes can be done with limited interaction (Meltzer & Crabtree, 2015).

Modified Extinction

The same procedure can be done with the parents staying in the room but ignoring the child and the problematic behavior (after one "It is time to go to sleep" statement). This is effective and helps some parents be more consistent. Over successive nights, the parent can gradually move farther away from the child, until he or she is in the hall with the door open.

Gradual Extinction

Despite evidence for the “cry it out” approach, most parents find a gradual approach more tolerable, in which they are instructed to ignore bedtime crying/tantrums on a specified schedule of “check-ins.” The time between check-ins takes into consideration the child’s age, temperament, and how long the parents feel they can ignore the crying. They can check in on a “fixed-interval schedule” (e.g., every 5 minutes) that can be increased over successive nights (5 minutes the first night, 10 minutes the next night, etc.). Incremental longer check-ins can also be done across successive checks within the same night (e.g., wait 5 minutes, then 10 minutes, then 15 minutes; on successive nights, the initial wait time can be increased by 5 minutes). The child should be comforted for a few seconds to no more than 1 minute; the parents should minimize interactions during the check-ins that may reinforce their child’s attention-seeking behavior. If the child tries to leave the room, the door can be held shut until the next check-in. This method is effective but takes longer than unmodified extinction. The parents should be given a written schedule for check-in times and keep data on its use.

Positive Routines/Faded Bedtimes

This procedure provides a positive, yet less tested, alternative to extinction. It focuses on appropriate behaviors and control of affective and physiological arousal rather than on reducing inappropriate behavior. Stimulus control is established for bedtime by establishing positive routines characterized by a set bedtime routine, with quiet activities that the child enjoys. In order to reduce bedtime problems, the bedtime is set by determining the child’s natural sleep onset time (Sleep Diary). If this is difficult to determine, the parent should take the child out of bed for predetermined periods of time when the child does not fall asleep. A positive behavioral chain occurs when the appropriate cues for sleep onset are paired with positive parent–child interactions and the bedtime is delayed to ensure rapid sleep initiation. Once the behavioral chain is well established and the child is falling asleep quickly, the bedtime is moved earlier by 15–30 minutes over successive nights, until a preestablished bedtime goal is achieved. It is important that the bedtime and wake-up time are the same every night, both during the week and on weekends, and the bedtime should not be moved up quickly, but every 3 to 5 days.

Scheduled Wakenings

Scheduled wakenings are helpful for the child who has frequent night wakenings and signals the parent during the night. It involves determining a baseline of the number and time of spontaneous nighttime wakenings, then waking the child 15–30 minutes before a typical wakening. The parents should engage in their typical response to wakenings (rocking, rubbing the child's back). Over consecutive nights, the scheduled wakenings are gradually faded by increasing the time between wakenings. These scheduled wakenings appear to increase the duration of consolidated sleep.

Considerations

For children 2 years and older, telling or reading a story about a child who has experienced a similar problem, and what was done about it, helps them understand what is going to happen and also helps the parents be consistent in carrying out the program. We use a story called "I'll See You in the Morning," which is adapted from a story by Ann Spitznagel (1976; see Table 5.3). The parents can also praise good nighttime behavior and provide a sticker for each night the child goes to bed quietly and stays in bed. A sticker chart that is hung on the back of the child's door provides extra motivation. Extinction methods should not be used if a child has a severe separation anxiety, which should be addressed before dealing with the sleep problem.

TABLE 5.3. "I'll See You in the Morning!"

There once was a little girl named Susie who lived in an apartment with her mommy and little brother. Every night, when her mother put her to bed, Susie would get out of bed and cry for her mommy to lie down with her. She said that she could not go to sleep without her mommy beside her. If Susie woke up in the middle of the night, she would either go to her mommy's bed or her mommy would have to come to Susie's bed.

One night her mommy said, "This is silly. My little girl is growing up to be a big and helpful girl. She can learn to sleep by herself. It will be good for her to know that she can go to bed any time without her mommy. It will be good for everyone else, too. I can get my housework done, or take a bath, and go to bed any time I want." So one night, Susie's mommy told her that things would be different that night. Her mommy said:

"Tonight I am going to read you a story and then say, 'Good night, I'll see you in the morning,' and leave the room. I am not going to come back to see you if you cry. If you come out of the room, then I will take you back and close the door until you stop crying. I am not going to talk to you until the morning. If you wake up at night I am going to take you back to your own room, and if you come out I will close the door."

Susie's mother knew that this might be hard for her little girl, so she said, "If you go to bed quietly, I will give you a sticker, and if you stay in your room all night, I will give you another pretty sticker in the morning."

That night the mommy read Susie a story, kissed her, and said, "Good night, I'll see you in the morning!" Then when Susie cried, her mommy did not go back to the room. Susie cried harder and harder, but her mommy did not come. Susie went to find her mommy. Her mommy took her right back to the room and closed the door. Susie said to herself, "This is silly to cry. Mommy is not going to talk to me until the morning. I am OK in my bed. I will stay here until the morning."

When Susie woke in the middle of the night, she said, "I can stay in my room without Mommy. I am a big girl."

Next morning Susie's mommy said, "You are really a big girl, and I am very proud of you." She gave Susie a pretty butterfly sticker for staying in her room all night.

Note. Details of this story can be changed to fit a child's individual circumstances. Adapted from Spitznagel (1976) with permission from Ann Spitznagel.

Circadian Rhythm Sleep–Wake Disorders

Children with a circadian rhythm problem have trouble falling sleep and, consequently, have trouble getting up in the morning (night owls) or they naturally fall asleep too early and, consequently, get up too early (morning larks). Sleep–wake cycles can be changed and require a daily rhythm of setting regular daily schedules for rising, eating, exercising, napping, and clearly separating day and night activities, by establishing relaxing bedtime routines and rituals. Changing a child's sleep-onset time or wake-up time also involves determining when the child typically falls asleep or wakes up, the time and length of naps (Sleep Diary), and the appropriate amount of required sleep (based on developmental sleep requirements). Restricting daytime sleep can increase the need for sleep, causing an earlier sleep-onset time. Thus, naps may need to be eliminated or the length limited, or the timing of the nap changed. The previously described *positive routine/faded bedtime* intervention can be used to gradually move the typical sleep-onset time or wake-up time by 15- to 30-minute increments to the desired sleep-onset or wake-up time, which can be done within a few weeks.

For adolescents who have a delayed sleep onset of more than 2 hours after desired sleep onset, the effects of the social and academic pressures on the adolescent have to be considered, as well as their motivation to maintain a consistent sleep schedule 7 nights a week. Effective treatment includes healthy sleep habits, negotiating a bedtime based on required wake-up time for school, and fading the sleep onset backward to the desired time. Bright light therapy (BLT) can advance the delayed circadian rhythm (Dodson & Zee, 2010) to make the sleep timing more appropriate for the adolescent's needs. There are a number of commercially available BLT models online. The timing of the BLT is important, and the reader is referred to Meltzer and Crabtree (2015) for specific information on its use. The circadian rhythm is naturally longer than a 24-hour day, which makes it far easier to go to bed and fall asleep later each day than to fall asleep earlier. Chronotherapy is based on the circadian rhythm propensity to be longer than 24 hours, and gradually moving the circadian rhythm forward (to a later sleep time) each day allows larger shifts in sleep timing than earlier sleep time (Harvey & McGlinchey, 2015; Meltzer & Crabtree, 2015). These shifts in bedtime can be large, so the desired circadian rhythm onset can be reached in 1–2 weeks. This intervention has been recommended for adolescents who have typical wake-up times later than noon (Lack & Wright, 2007) and, given its disruption to daytime activities, will require the adolescent's and the school's support. The secretion of melatonin generally occurs 2 hours before sleep onset. Small doses of melatonin can shift the sleep-onset time forward. Although melatonin is an over-the-counter herbal supplement, it should not be used for children or adolescents without a physician's approval (see Meltzer & Crabtree, 2015, for a more comprehensive summary of these interventions).

Bedtime Fears and Nightmares

The nature of nightmares can make some children afraid to go to bed, because the content of the nightmare (monsters, fear of the dark) is associated with going to bed and nighttime. Therefore, if a child is afraid to go to sleep, the clinician should determine whether this fear has been precipitated by nightmares. Parents should be made aware that nightmares can be the result of trying to understand or deal with new or frightening stimuli encountered during the day. They can then understand the need to support the child and desensitize him or her to the feared stimuli, rather than insisting that the child avoid all potentially frightening material on TV or in daily activities.

Nightmares are understandable when one considers the fears children experience on a daily basis (Muris et al., 2000a). A young child is expected to have greater control over his or her behavior and to express emotions appropriately, and at the same time, he or she is exposed to many new and varied stimuli through social interactions, books, and television. Referrals for treatment of nightmares are common for children ages 4–6 years, then tend to increase again during the adolescent years (mirroring the conflict and struggle of becoming more independent, as in the preschool years).

Children are able to describe the content of a nightmare as soon as they can talk; however, understanding that a dream is not real, that it is invisible to others, that it comes from within and goes on inside a person and is caused by one's own thought processes, follows a developmental progression. By age 3–4 years, most children have some understanding of the difference between dreams and reality. By 8 years, children typically have a full understanding of dreams as thought processes (Foulkes, Hollifield, Sullivan, Bradley, & Terry, 1990). Thus, treatment techniques for children who have frequent and recurrent nightmares must take into account the child's developmental level and understanding of dreams. For example, although a 4-year-old may be told that his or her dream is not real, it is also important to give the child concrete reassurance (e.g., hugs, a night light). For older children, a discussion of the dream and its possible basis can facilitate the development of coping skills.

Although parent and child must deal with a nightmare when it occurs, the treatment process should take into account what happens to the child during the day and help the child gain a sense of control over or competence in difficult situations. In some instances, the child may have been exposed to situations that are too stressful or frightening to handle. Treatment in these cases involves removing the child from those situations (e.g., not allowing the child to watch monster movies, or stopping the physical and verbal battles to which the child is exposed in the home, the day care center, or school). It is important to allow the child to describe a nightmare, to have a night light so that he or she can see that nothing is in the room, and to be supportive but firmly make it clear that nothing will happen to the child (e.g., do not close the closet door or look under the bed for a monster). Treatment during the day can involve desensitizing the child to the frightening dream by having him or her draw pictures or finger-paint the feared object, or dress up as the feared monster. The literature reports a number of successful treatment approaches, including teaching relaxation, using pleasant imagery, making statements about competence in regard to sleeping, and reinforcing the child for appropriate sleep behavior. Having the child replay the nightmare, with the child taking an active role in coping victoriously with the feared event or object in the replay, is also a good way for the child to gain a sense of competence. One should be careful not to decrease a child's exposure to all frightening movies or events, because part of learning to cope with fearful and stressful situations is being exposed to them in a gradual, age-appropriate fashion.

Intervention in Medical/Health Aspects/Medication

Despite there being no FDA-approved prescription or over-the-counter medications for children with insomnia, and in the absence of safety and efficacy data, there is a widespread use of medications for sleep-related issues. A survey of 1,273 members of the American Academy of Child and Adolescent Psychiatry reported that at least 96% of the respondents recommended at least one prescription medication in a typical month, and 88% recommended an over-the-counter medication (Mindell et al., 2006). In addition, about two-thirds of child psychiatrists reported recommending nonprescription antihistamines (e.g., Benadryl), while more than one-third had recommended melatonin (Owens, Rosen, Mindell, & Kirchner, 2010). Antihistamines have a relatively long half-life, resulting in the common side effects of drowsiness and clumsiness; also, tolerance can develop in 3–4 days (Schweitzer, 2011). A number of uncontrolled studies using melatonin with children have reported positive results, which encourages future well-controlled studies of melatonin (see Christophersen & VanScoyoc, 2014). However, negative side-effects must also be taken into consideration. For example, open trials of melatonin for teens report safety concerns about its impact on the reproductive endocrine system (Malpaux, Thiery, & Chemineau, 1999; Wyatt, 2011). See Mindell et al. (2006) and Mindell and Owens (2010) for extensive reviews on pharmacological methods in the treatment of childhood sleep problems.

Mindell and Owens (2010) warn that prescribing medication may conceal problems that are truly maintaining the sleep problems and reduce the parents' willingness to help develop basic sleep hygiene. Given the lack of research on the safety and efficacy of medications for sleep problems with children, the use of empirically supported behavioral interventions should be the treatment of choice.

CASE EXAMPLE: NIGHT WAKING

Step 1: Initial Contact

Mr. and Mrs. Knight, the parents of 3-year-old Amy, called for help in getting her to sleep through the night. Mr. Knight worked as a carpenter, and Mrs. Knight did part-time work in a grocery store. Mrs. Knight explained that she was a very light sleeper, and the continual night wakings had left her exhausted. Although Mr. Knight helped in caring for Amy at night, he had a very strenuous job; the parents felt that, between the two of them, he was more in need of an uninterrupted night's sleep. Both parents indicated that their sexual relationship had been almost nonexistent since Amy's birth, and they wanted this to change. Amy's 8-year-old sister had not presented any sleep problems, and she did not wake up when Amy cried in the night. Mrs. Knight made it clear that she would not be able to tolerate a lot of crying, which indicated that any program would have to be a gradual one.

The PSI-4, ECBI, and CBCL scores indicated a well-adjusted child during the day and parents who were stressed. The CSHQ did not indicate other sleep problems, and a recent physical examination indicated a healthy child. Mrs. Knight reported health problems, and both parents reported marital problems and disagreement about handling the sleep problem.

Step 2: Initial Intake Interview

Amy had been born prematurely, after a complicated pregnancy that resulted in Mrs. Knight's being confined to bed for 5 months. Amy's sleep pattern was erratic until about age 16 months, when she slept for 8 hours during the night and took two 1½- to 2½-hour naps during the day. Her mother or father rocked her to sleep every night, and because of her early developmental history, one of them slept in the room with her. Currently, Amy was waking two to four times throughout the night, at which time her mother or father changed her diaper, gave her a drink, and held her until she fell asleep again. All of this took about 5 minutes from the time of awakening. During the day, Amy was described as a happy child with a great deal of curiosity and a high activity level.

A 2-week Sleep Diary (Figure 5.1) indicated that it took Amy 30 minutes on average to fall asleep at night and that she woke an average of four times per night, taking 5–10 minutes on each of these occasions to get back to sleep. The parents stated in the Sleep

Diary that they tried not to respond to her nighttime cries, but within 10 minutes, they would do so. They stated that it was easier to give in to her than to tolerate her crying and have a totally sleepless night. In the past, they had let her cry up to 45 minutes before going to her; they had talked with her about the need for all of them to get a good night's sleep; and they had even screamed at her in the middle of the night to stop crying. They had also talked with their pediatrician, who recommended a sedative, but they did not want to use medication. Other advice had been to "let her cry it out." They were not able to follow this advice and were concerned about the psychological effects on Amy.

Step 3: Observation of Behavior

The Sleep Diary served as the source of observational data for this case.

Step 4: Further Assessment

Further assessment was not needed in this case.

Step 5: Collaboration with Other Health Care Professionals

Referral to other professionals was not necessary in this case.

Step 6: Communication of Findings and Treatment Recommendations

Mr. and Mrs. Knight were told that many children who are born prematurely take a longer time to develop a regular sleep pattern, and that their parents are understandably more reluctant to allow the children to cry for any extended period of time. Amy, however, appeared to be developing normally and was at an age at which she should be able to fall asleep by herself and sleep through the night without her parents. Mr. and Mrs. Knight were resistant to the idea of allowing Amy to cry herself to sleep, even though they were told that this should not result in any psychological harm to her.

The parents insisted on a very gradual approach, including gradually decreasing the frequency with which a parent slept in Amy's room. The clinician voiced concerns about their staying in the room with Amy and emphasized the need for consistency over a long period of time to make any program effective. The initial intervention program included (1) establishing a clear nighttime ritual with a story and songs; (2) reading a story to Amy that described the planned treatment with another little girl; (3) patting Amy's back for a count of 100, gradually decreasing the pats to a 1-minute back rub before saying good night; (4) not speaking to Amy after saying good night, and not talking to her during the middle of the night; (5) having a parent lie down on a cot in Amy's room without speaking to her until she fell asleep; (6) leaving Amy after she was asleep, but returning to her room when they retired for the night; and (7) putting a chart with the days of the week on Amy's bedroom door, and giving Amy a sticker for staying in her bed during each night.

Course of Treatment

Treatment occurred over a 6-month period with erratic progress. Within 2 weeks, Amy was going to sleep on her own, while either Mr. or Mrs. Knight sat in a rocking chair placed at the doorway of the room, reading the newspaper. Mrs. Knight continued to sleep in Amy's room but did not get out of bed or talk to Amy when she woke, and Amy soon went back to sleep on her own after calling out to her mother.

The plan for the next 2 weeks included telling Amy that her mother would no longer sleep in Amy's room, but if she woke, she could call to her mother, who would answer but not go into her room. Neither parent wanted to give up sitting in the rocking chair as Amy fell asleep. If Amy got out of bed, Mrs. Knight was instructed to take her back to bed but not to talk to her or sleep in her room. As noted earlier, Amy got a sticker for staying in her room during the night. The first night she came out twice, but by the seventh day she was calling to the parents only once per night. The parents were comfortable with this, and follow-up a month later revealed that Amy continued to call to her parents one to two times per night. They were satisfied with the outcome.

Several months later, Mrs. Knight went away for a weekend. Amy did fine during her absence, but when she returned Amy was very clingy during the day and was described as "inconsolable" when she awoke at night. She was still going to bed on her own, with one of her parents sitting in the rocking chair for a few minutes, but she was waking four to five times each night and coming to her parents' room. By the time the parents contacted the clinician, Mrs. Knight was once more sleeping in Amy's room during the night.

Given Amy's increased insecurity, it was recommended that Mrs. Knight allow Amy to stay close by her throughout the day, even to the point of letting Amy know when she was going to another room. Mrs. Knight also continued to sleep in Amy's room but did not talk or interact with her in any way when she awoke. Within three weeks, the parents indicated that Amy was no longer clingy during the day and seemed comfortable being away from the mother. At this point, Mrs. Knight went back to sleeping in her own room, but Amy repeatedly came into their room upon awakening; on 4 out of 7 nights, Amy spent the rest of the night in their bed or Mrs. Knight slept in Amy's room. During one of these nights, Mr. Knight became so angry with Amy that he turned on the light, put on his coat, and walked out the front door!

The parents agreed with the clinician that the gradual approach they had helped design was not working. For their sakes and Amy's, it was agreed that a "cold turkey" approach was needed at this time. Amy evidenced no separation anxiety during the day and was clearly capable of sleeping through the night without their assistance. The parents agreed that they had to respond consistently if Amy was ever going to learn to sleep on her own. Amy was told that if she came out of the room after they said good night to her or during the night, she would be taken back to her room and the door would be closed (and held if necessary) until she was quiet and in bed. During the first and second nights, Amy only called out twice to her parents. By the third night, she was going to bed on her own and sleeping through the night without disturbing her parents.

At a follow-up 1 year later, Amy was continuing to sleep through the night. The parents indicated that after illnesses that required them to attend to her during the night, they reminded Amy that she was now well and could manage on her own, and that if she did come out of her room, they would return her to her own room and close the door. Initially, Amy would call out once a night for a night or two, then begin sleeping through the night.

CASE EXAMPLE: NIGHTMARES

Step 1: Initial Contact

Mr. and Mrs. Moon, parents of 11-year-old Matthew, requested help in dealing with Matthew's recurrent nightmares. Screening instruments indicated that Matthew was doing well in school, was involved in many activities, and had friends. Although he was described as a rather sensitive and serious child, they saw him as quite happy. A Sleep Diary indicated that nightmares had occurred on 11 out of the last 14 nights. Matthew went to sleep in his own bed, but after having a nightmare, he slept on the floor of his parents' bedroom or with his older brother. In the last 5 days, he had been taking longer to get to sleep at night, repeatedly calling to his parents or staying up to read.

Step 2: Initial Intake Interview

Parent Interview

The parents came alone for the initial interview, and a day later, Matthew was seen. Mr. Moon was a security guard, and Mrs. Moon cleaned houses. Matthew, the third of four children, was described as a healthy youngster who had never been hospitalized and had received only occasional antibiotics. His parents described a sleep history of occasional night terrors from ages 4–6. These had seemed to occur at about the time of the maternal grandfather's death and after a particularly difficult bout with the flu, including a very high fever. The night terrors had been especially frightening for the parents, but after talking with their pediatrician, they had been reassured. Matthew had had at least one nightmare a week during the preschool years, and only occasional nightmares up until 1 month prior to the initial contact.

The nightmares during the preschool years had involved monsters chasing him and weird flying birds. The recent nightmares followed the theme of some tragic event occurring to a member of the family, with Matthew feeling helpless to stop it. There was a great deal of focus on things happening to his youngest brother, age 5. Matthew complained of feeling tired during the day and becoming increasingly upset about the thought of going to sleep and having yet another nightmare. Matthew's parents and his older brother did not mind his coming into their rooms, but Matthew saw it as immature behavior. The parents indicated that the family situation was stable, and that they were in good health. The only upsetting event that had occurred recently was that the paternal grandfather had had a heart attack 2 months previously, but he was currently at home and recovering.

Child Interview

In the interview with Matthew, it was interesting that he reported having nightmares only every other night. He knew that the nightmares were not real but said that they were still very frightening. He described fairly stimulating and enjoyable daily routines. He also described a number of situations that caused him to be either very sad or very angry. For example, there were several bullies on the school bus who were constantly teasing and pushing the younger children (including Matthew and his younger brother); he was having trouble completing the requirements for a particular Scout badge; and he described his older brother as being particularly irritable with the entire family. He expressed affection toward his parents, particularly his mother, who (he felt) was treated unfairly by his older brother. At the same time, however, Matthew felt that his mother did not always treat him fairly when he got into a fight with his older brother.

Step 3: Observation of Behavior

The Sleep Diary served as the source of observational data for this case.

Step 4: Further Assessment

Further assessment was not needed in this case.

Step 5: Collaboration with Other Health Care Professionals

Referral to other professionals was not necessary in this case.

Step 6: Communication of Findings and Treatment Recommendations

Mr. and Mrs. Moon and Matthew were told that Matthew had many strengths (good school performance, friends, and age-appropriate interests) but was also sensitive to injustices and to people being hurt or bullied by others. His nightmares seemed to be related to stresses that he was encountering at home from interactions with his older brother, as well as from bullies on the school bus, who were particularly threatening to younger children. Given the frequency and upsetting nature of Matthew's nightmares, it was understandable that going to bed was unpleasant for him. It was recommended that Matthew be seen for four to six sessions to learn ways to cope with his nightmares when they occurred, as well as to learn more effective ways to deal with current and future stresses in his life.

Course of Treatment

Matthew was seen for four weekly sessions, and the clinician checked in with Mrs. Moon after each session. Matthew agreed to go to his parents' room when he had a nightmare. One of them was to take him back to his room, have him describe the nightmare to them, and reassure him that all was well. He was then to write the content of the nightmare in his Sleep Diary.

Matthew was taught to relax his body through first tensing then relaxing his muscles. As he was relaxing, he was to imagine one of two scenes that he particularly enjoyed: winning a basketball game, and seeing himself get physically stronger and stronger as he rode his bike and engaged in other pleasurable activities. Matthew and the clinician went over his descriptions of the nightmares and role-played them, with responses from Matthew that resulted in a victory over the scary events.

Treatment also focused on the areas that were creating stress for Matthew during the day. He and the clinician took a problem-solving approach to the issue of the bullies on the bus.

Matthew decided to ask his parents to inform the principal of his school about the bullies, and he planned to tell them to pick on someone their own size. Furthermore, he decided that if they physically attacked him, he was capable of defending himself. The family as a whole discussed sibling squabbles and agreed on a time-out program of isolation for everyone involved if the children could not resolve the problem themselves. The older brother was also encouraged to spend more time with his own friends, both inside and outside the home.

The decrease in nightmares over the next month coincided with Matthew's having greater control over daily events, and especially with the resolution of the problem with the bullies. The principal's investigation into this matter revealed real intimidation and physical aggression on the part of the bullies. They were suspended from riding the bus for a week. When they returned, they made verbal threats to Matthew, which he handled by stating, "You must not feel very good about yourselves if you have to talk like that." Matthew recognized that he might have occasional nightmares as he tried to resolve and understand daytime activities, but that when he had *recurrent* nightmares, it was time for him to look for and cope with stressors in his environment.

RESOURCES FOR CLINICIANS

Melzer, L. J., & Crabtree, V. M. (2015). *Pediatric sleep problems: A clinician's guide to behavioral interventions.* Washington, DC: American Psychological Association.

Wolfson, A., & Montgomery-Downs, H. E. (Eds.). (2013). *The Oxford handbook of infant, child and adolescent sleep and behavior.* New York: Oxford University Press.

RESOURCES FOR PARENTS

Ferber, R. (2006). *Solve your child's sleep problems.* New York: Fireside.

Huebner, D. (2008). *What to do when you dread your bed: A kids guide to overcoming problems with sleep.* Washington, DC: Magination Press.

National Sleep Foundation
https://sleepfoundation.org

Pediatric Sleep Council
www.babysleep.com

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[1] To eliminate confusion, in this chapter we used the term *stage 3 NREM* to designate deep sleep.

CHAPTER 6

Habits, Obsessive–Compulsive Behaviors, and Tics

In the course of growing up, most children display at least one fixed, repetitive behavior that is not always under voluntary control, called a *habit* or *tic.* In the professional literature these behaviors are referred to as *body-focused repetitive behaviors* (BFRB). For most children, these behaviors appear to be responses to temporary physical or emotional needs and seem to help them cope with normal everyday stresses. They typically appear and disappear during the normal course of development. Almost all children, for example, are observed sucking their fists within an hour after birth, then primarily after eating. Similarly, the use of a transitional object (e.g., a blanket, teddy bear, or doll) increases after age 2, at just about the time when separation and individuation issues peak, whereas the need for these objects begins to decrease after the preschool years. Body rocking peaks between 9 and 17 months, when children begin to sleep for longer periods of time, but it is usually gone by ages 2–3 years. Movement tics (e.g., blinking, shoulder shrugs) become evident between ages 6 and 8 years, when demands to "sit still and learn" increase; however, these tics also diminish rather quickly for most children.

"Old" habits may reappear with new stresses, such as the birth of a sibling, parental divorce, going to a new school, or the prolonged absence of a parent. Some children "hang on" to a particular habit for no apparent reason and, over time, it becomes an automatic, involuntary response. These behaviors or habits are not usually symptomatic of underlying pathology, and treatment is not usually recommended before age 4 or 5 years (Blenner, 2011). These behaviors only become problems under certain circumstances: (1) the behavior continues longer than is typical; (2) the behavior becomes severe or chronic enough to cause physical damage or distress; and/or (3) the child engages in the behavior so frequently that it interferes with ongoing physical, social, and/or cognitive development.

If the habits result in significant impairment, they may be considered body-focused repetitive behavior disorders (BFRBDs) and are currently classified as "related disorders" in the "obsessive–compulsive and related disorders" category of DSM-5 (American Psychiatric Association [APA], 2013). In the past 20 years, there has been a great deal of research in this area and obsessive–compulsive disorder (OCD) is no longer classified in a category with anxiety but is related to other psychiatric disorders that share core features with OCD, including failure to inhibit repetitive thoughts/behaviors; responses to the same treatments; similar comorbidity patterns; and common genetic, psychological, and environmental etiologies (Bienvenu et al., 2000; Hollander, Kim, Brown, Simeon, & Zohar, 2009). DSM-5 lists a number of disorders on the OCD spectrum, including body dysmorphic disorder, eating disorders, hair-pulling disorder, skin-picking disorder, as well as other BFRBDs (APA, 2013). It is important to note that the majority of patients with these disorders do not have comorbid OCD (Phillips et al., 2010).

Many BFRBs—including thumb sucking, nail biting, awake bruxism, check/lip biting, skin picking, hair pulling, breath holding, and rituals—appear during the normal course of development, and this chapter focuses on these common childhood habits. Some habits that persist and may be indicative of a more serious problem, such as hair pulling disorder, OCD, and tic disorders, are also discussed. Given the number of behaviors covered in this chapter, treatment is included with the description of each behavior.

ORAL HABITS

Thumb Sucking

Thumb sucking[1] (which can actually include sucking the thumbs, fingers, fists) is a common behavior among children. Most children suck their thumbs at some time during the first year of life, then the incidence gradually decreases from 30 to 55% in preschoolers to 5–15% after 5 years of age (Blenner, 2011; Matthews, Matthews, & Leibowitz, 2001). Thus, thumb sucking spontaneously remits at the rate of approximately 5–10% per year. By ages 2½–3 years, it usually occurs only at night and is often associated with the use of transitional objects, or with some other behavior, such as twisting or pulling the hair or ear, rubbing a cheek, or sucking on a blanket (Matthews et al., 2001). If thumb sucking occurs during the day, it is usually associated with some relaxing activity, such as watching television or listening to a story. By age 5 years, most children suck their thumbs only while asleep.

There is little empirical evidence on the etiology of thumb sucking, but there appears to be some value to early thumb sucking: it decreases crying, makes teething easier, helps a child get to sleep, and generally acts to soothe a child. The use of oral pacifiers has been shown to reduce sudden infant death syndrome (SIDS), and it is recommended that they be offered at all naps and at bedtime during the first year of life (American Academy of Pediatrics [AAP] Task Force on Sudden Infant Death Syndrome, 2016). However, according to the AAP guidelines, the pacifier should not be inserted in the mouth after the child falls asleep or be tied to the crib or to the wrist of the child. Although less compelling than the decrease in SIDS, the use of oral pacifiers with breast-fed babies has been associated with a decrease in the duration of breast feeding by several months (Mitchell, Blair & L'Hoir, 2006; Ullah & Griffiths, 2003). It is recommended that pacifier use be delayed until the infant is 1 month of age, when breast feeding is firmly established (AAP Task Force on Sudden Infant Death Syndrome, 2016).

Unless it is so chronic that it interferes with the child's involvement in other activities, thumb sucking or pacifier use is not viewed as a problem and should be ignored unless dental concerns arise, usually between 4 and 6 years of age. Dental concerns include an anterior open bite, malocclusions, narrowing of the dental arches, gingivitis, and digital deformities (Brenchley, 1991). For older children, thumb sucking can interfere with their social standing with peers (Friman, McPherson, Warzak, & Evans, 1993). Moreover, some parents find thumb sucking very annoying or offensive and may exacerbate an issue through negative attention. Thus, concerns about thumb sucking are dependent on the severity and chronicity of the habit, as well as its effects on the parents, the child's social acceptance, and the child's oral and finger structure.

Woods and Houghton (2015), in a review of evidence-based psychosocial treatments for pediatric BFRBDs, found support for individual behavior therapy for thumb sucking. For example, Friman and Leibowitz (1990) used an aversive substance (over-the-counter Stop-Zit) painted on the thumbnails or fingernails and increased parents brief, positive nonverbal contact with the child (e.g., touching, smiling) and a tangible reward system (a grab bag of rewards such as nutritious snacks, special time with parents) to reduce chronic diurnal and nocturnal thumb sucking in 20 of 22 children ages 4–11.

Many parents help their children give up thumb sucking by removing an associated object. Friman (1988) demonstrated the success of this approach by preventing the covarying response of doll holding. When the doll was removed (the child was told that she had outgrown it), the thumb sucking stopped almost immediately. Watson and Allen (1993) prevented thumb sucking in a 5-year-old girl by attaching a splint to the child's thumb, which did not cause pain in the thumb or the mouth but simply prevented the thumb's contact with the palate. The child discontinued thumb sucking, as well as the hair pulling that covaried with the thumb sucking. The use of an oral pacifier has been reduced by a variety of techniques, including simply removing it from the child, allowing it to be used only at certain times and places, and by putting an aversive-tasting substance on the pacifier.

Nail Biting

Nail biting (*onycophagia*), and the often associated behavior of picking at nails or cuticles with fingers, are common habits of children. Parents report that 25% of children between ages of 2½ and 6 years bite their nails (Foster, 1998). At about age 6, there is a marked increase in nail biting, which peaks at 57% by age 12 and gradually decreases to a rate of about 4.5% in adults (de Berker, 2004; Tanaka, Vitral, Tanaka, Guerrero, & Camargo, 2008). In adolescence, the incidence is greater in boys than in girls (Tanaka et al., 2008). Nail biting is primarily viewed as a learned behavior that reduces anxiety or tension or occurs when a child is trying to concentrate; it is most pronounced during periods of stress (Carson, Butcher, & Mineka, 1998). There appears to be a familial and/or genetic component to nail biting, with 36.8% of children with nail biting reported to have at least one family member with nail biting (Ghanizadeh & Shekoohi, 2011). In addition to the obvious cosmetic problems, nail biting can lead to social embarrassment, scarring and infection of the nail bed and/or cuticles, and dental problems, such as the shortening of tooth roots due to excessive pressure (Fuqua & Brosh, 2006; Williams, Rose, & Chisholm, 2007). Comorbidity has been reported with attention-deficit/hyperactivity disorder (ADHD), oppositional defiant disorder, separation anxiety disorder, tic disorder, and enuresis (Ghanizadeh, 2008).

Although more research is needed on treatment of nail biting, habit reversal therapy (HRT) and cognitive-behavioral therapy (CBT) are currently empirically supported treatments (Woods & Houghton, 2015). HRT, with its emphasis on self-awareness and a competing behavior (making a fist or clenching an object) eliminates nail biting in 40% of cases and significantly reduces it (by 50% or more) in 84% of cases (Peterson, Campise, & Azrin, 1994). Other approaches to eliminating nail biting and their success rates are as follows: self-monitoring alone (15%), bitter-tasting substances (15%), competing responses alone (40–57%), and negative practice (15%) (Peterson et al., 1994). Ergun, Toprak, and Sisman (2013) used an 8-week school-based “healthy nails” CBT program with 103 third-grade Turkish schoolchildren. The nurse-led program involved a 35-minute education session on care of nails, with separate groups for parents and children, taking weekly photographs of the nails, and rewards for improved nails/nailbeds; the children in the treatment group versus a wait-list control group showed significant improvement, with 64% of the children stopping their nail biting by 8 weeks. Nail biting is difficult to stop, and this cost-effective group approach holds promise for its treatment.

Awake Bruxism

There are two types of bruxism—awake bruxism and sleep bruxism—that involve nonfunctional contact of the teeth, primarily jaw clenching and tooth grinding. Although the two conditions have similar characteristics, they have different underlying causes, and both can occur in the same individual (Shetty, Pitti, Satish Babu, Surendra Kumar, & Deepthi, 2010). See Chapter 5 for a discussion of sleep bruxism. The most common behavior in awake bruxism is clenching of the teeth. If severe, bruxism can cause irregular and premature wear on the teeth, malocclusion, and facial damage, especially to the temporomandibular joint (Shetty et al., 2010).

Bruxism can occur as soon as the teeth erupt, but is most frequent (15% of children) between ages 3 and 17 years (Sari & Sonmez, 2001). In addition to stress and anxiety (van Selms, Lobbezoo, Wicks, Hamburger, & Naeije, 2004), a variety of factors may be significant in the etiology of bruxism: (1) nutritional deficiencies (iron); (2) histamine release associated with allergies, colds, or stress; (3) hyperthyroidism; (4) neurological conditions, such as cerebral palsy and intellectual disabilities; (5) juvenile rheumatoid arthritis; and (6) medications, such as amphetamines and their derivatives (Glaros & Epkins, 1995).

The initial diagnosis of bruxism is usually made by a dentist. Effective treatments have included protective dental devices or splints, biofeedback, and HRT (Peterson et al., 1994; Shetty et al., 2010). However, relapse after treatment completion is a common problem with all these approaches.

Other Oral Habits

Other oral habits (e.g., lip picking, lip biting, lip licking, tongue sucking, tongue biting, sucking the roof of the mouth, and cheek biting) are usually transient, and wax and wane over time; if a problem, they are first noticed by dentists. In a U.S. sample of 10,030 children ages 2–17 years, the prevalence of cheek/lip and tongue lesions were highest, 1.89 and 1.54%, respectively (Shulman, 2005). It is hypothesized that stress, parental attention to the behavior, or an oral injury with an annoying lesion leads to increased contact and, ultimately, to a persistent habit. These habits are primarily problems with children or adults who are developmentally disabled. People with Lesch–Nyhan syndrome, for example, are known to mutilate parts of their bodies (including their tongues, lips, and oral cavities) by biting. For typically developing children, the habit is best ignored, unless it results in distress or physical harm. Oral appliances have been used successfully to treat these problems (Bhatia, Goyal, & Kapur, 2013; Cehreli & Olmez, 1996) and behavior therapy techniques have been demonstrated to be effective. In an innovative treatment program for a bright 12-year-old boy who engaged in mutilating lip biting and face wiping on his sleeve, Lyon (1983) used tracking (self-recording with a counter), response substitution (dabbing Vaseline on lips in place of biting lips), response prevention (sandpaper attached to the wrist to deter face wiping), and relaxation training to reduce the behaviors to zero in 5 weeks, which was maintained over a 7-month follow-up period.

OTHER HABITS

Other habits that come to the attention of clinicians include skin picking, breath holding, rituals, sameness, and perfectionism. Head banging is covered in Chapter 5; the others are discussed here.

Skin Picking

Skin picking that results in skin lesions, accompanied by unsuccessful attempts to stop and significant impairment and/or distress, is categorized as *excoriation disorder* (ExD) in DSM-5 (APA, 2013). Typically, the skin is picked on the face, arms, and hands, but it may also involve other areas of the body. The age of onset is during puberty, with a lifetime prevalence in adults of 1.4% (APA, 2013). The etiology is associated with genetic, physiological, and environmental factors, such as trauma, and has a high co-occurrence with hair pulling (Snorrason, Belleau, & Woods, 2012). As with other BFRBDs, the clinician has to determine the developmental stage and severity level to determine the focus of intervention. DSM-5 (APA, 2013) indicates that if symptoms are mild, psychoeducation, the development of coping skills, and increased awareness are appropriate interventions. For more moderate to severe functional impact, interventions include HRT, CBT and, if needed, medication (Thomsen, 2013). Cavalari, DuBard, and Luiselli (2013) reported on using a simplified version of HRT for the treatment of a 17-year-old girl with autism spectrum disorder and skin picking. It consisted of competing response training and social support (i.e., differential reinforcement), which reduced skin picking to near zero, and the gains were maintained in a 4-month follow-up.

Breath Holding

Breath holding (breath-holding spells, BHS) consists of holding the breath for 30–60 seconds, with resultant signs of cyanosis and possible unconsciousness as an end to the attack. Episodes are usually triggered by physically painful or emotionally upsetting events. It occurs in 5% of otherwise healthy children, with onset reported to be as early as 3 months of age, and peaks at 2 years, and it gradually disappears for most children by 4 to 8 years of age (Walter & DeMaso, 2011). There are two forms of breath holding, *cyanotic* and *pallid*, both of which are involuntary and reflexive (Breningstall, 1996). Cyanotic breath holding, the most common type, is characterized by rapidly occurring bluish or purplish discoloration of the skin and is typically triggered by an emotional reaction (anger) to an upsetting event (being disciplined, loss of toy) and may be associated with a temper tantrum. The child cries out, stops breathing, changes color, and sometimes loses consciousness. After a few seconds, breathing resumes, and normal skin color and consciousness return. The pallid form of breath holding starts abruptly, and is characterized by slow heart rate, temporary ceasing of heart contractions, and/or faintness, and typically follows a painful experience (falling, bumping head or being startled). Both forms can lead to unconsciousness and, although rare, a seizure (Breningstall, 1996). Children who have a seizure during BHS are not at risk of getting a seizure disorder (Walter & DeMaso, 2011). BHS may occur as often as several times a day or as little as once a month. About 20–30% of breath holders have a family member who exhibited breath holding as a child, and although BHS are involuntary, their occurrence may be inadvertently reinforced by parental attention (Matthews et al., 2001). Parents should be provided information about BHS and how to handle them (e.g., make sure child is in a safe place) and reassured that these frightening breath-holding episodes are benign, and should be handled in a neutral manner. Parents may also benefit from learning how to handle temper tantrums. If a parent has not already contacted a physician, or the episodes are getting worse or more frequent, the child should be seen by a physician. Some children with cyanotic BHS have an iron deficiency, and others, even those without an iron deficiency, respond to treatment with iron supplements (Blum, 2002).

Rituals, Sameness, and Perfectionism

Young children engage in a significant number of rituals and compulsion-like behaviors, such as insisting on the “exact same” bedtime routine, wanting the same story read over and over, insisting that food be presented in the same way, or wearing only certain clothes, all of which appear to be part of their normal behavioral repertoires. Repetitive, compulsion-like behaviors usually begin at about 18–21 months, whereas more perfectionistic behaviors appear at approximately 24 months. Using a parent report questionnaire with 1,488 parents of children ages 8 months–6 years, Evans et al. (1997) found a developmental trend, with a peak prevalence rate of over 75% of 2- to 4-year-old children engaging in these behaviors, with a significant decrease after the preschool years. These data suggest that perfectionistic behavior and insistence on sameness serve some adaptive function for preschoolers. Kopp (1989), for example, argues that these behaviors serve a child’s emotional and social need to gain some sense of self-control and regulate emotional states.

Although ritualistic and perfectionistic behaviors may be annoying to parents, the best approach in dealing with them is to make reasonable accommodations to the child’s needs, recognizing that the behaviors will probably decrease with time. Given that ritualistic behaviors are very similar to those seen in OCD and autism spectrum disorder (see Chapter 11), an evaluation of the child may be appropriate if this behavior persists in an overly rigid manner into the school-age years.

HAIR-PULLING DISORDER

The scientific literature most often uses the term *trichotillomania* for chronic hair pulling that results in baldness, but DSM-5 (APA, 2013) labels it *hair-pulling disorder (HPD)*. For purposes of continuity we use the term *HPD*. Although HPD usually involves pulling hair from the scalp, hair can be plucked from eyebrows, eyelashes, and the pubic region, as well as arms, legs, and armpits (APA, 2013). Some children mouth and/or swallow the hair, creating "hairballs" (trichobezoars) that form in the stomach and may cause significant gastrointestinal difficulties (Bouwer & Stein, 1998). In assessing HPD, it is important to rule out other factors that can cause hair loss, such as vigorous brushing, tight braids, eczema with resultant rubbing, seborrhea, fungal infections, and alopecia areata. Alopecia areata, a disorder that results in nonscarring, sudden loss of hair in smooth single or multiple spots about the size of a nickel, can progress to total hair loss. Noninflammatory alopecia areata is a systemic autoimmune skin disorder that may be triggered by environmental bacteria and viruses and is genetically linked (Tamparo & Lewis, 2011). HPD is easily distinguishable from alopecia areata, because it presents as inflamed areas with missing and broken hair mixed with hair that is intact, with normal hair follicles.

HPD is differentiated from OCD in that obsessions are not part of the diagnosis, and the motivation for the behavior differs (e.g., the child is not preoccupied or motivated by symmetry). Criteria for HPD include recurrence of pulling out one's hair, resulting in hair loss that is not attributed to a medical condition or other mental disorder (e.g., attempts to improve a perceived flaw, as in body dysmorphic disorder) and causes clinically significant distress or impairment in functioning. Typically, the behavior is habitual, is engaged in almost daily, and is episodic (e.g., occurs before bedtime, during times of stress). Preschool children with HPD usually only pull hairs from the scalp, and the number of pulling sites increases with age (Franklin et al., 2008; Walther et al., 2014). The prevalence of HDP is between 0.6 and 2% of the general population (APA, 2013; Duke, Bodzin, Tavares, Geffken, & Storch, 2009). It is estimated that prevalence rates are seven times higher in children than in adults (Watson & Sterling, 1998), with no gender differences in preschool children, but HPD is more common in females with increased age, and the most common onset is during adolescence (Snorrason et al., 2012; Tay, Levy, & Metry, 2004). The etiology of HPD is associated with genetic, physiological, and environmental factors such as trauma (Snorrason et al., 2012).

Several authors have noted that HPD in children under age 5 years may represent a distinct subtype of the disorder. According to Swedo, Leonard, Lenane, and Rettew (1992), compared to HPD in older children, HPD in children younger than age 5 years is benign, has an episodic course, and frequently resolves without intervention. In addition, others have found that young children have less consistent reports of preceding arousal and subsequent relief (Wright & Holmes, 2003), and are less aware of the behavior (Walther, Richetts, Conelea, & Woods, 2010). An online parent survey of 110 parents of children ages 10 years and younger with HPD found that the overall clinical characteristics of these children were similar to those found in adolescence and adults (Walther et al., 2014). However, in a comparison of preschool children (ages 0–5 years) and school-age children (6–10 years), the preschool children were less likely to be impaired because of symptoms, pulled from fewer body areas, had fewer comorbid conditions or a history of treatment seeking, and were less likely to be aware of the act or to experience tension prior to the act. For the entire sample, 23.6% indicated that one other psychiatric disorder also had been diagnosed; the most commonly cited comorbid diagnosis was anxiety (13.6%), followed by ADHD (10%), OCD (2.7%), mood disorder (2.7%), and tic disorder (2.7%) (Walther et al., 2014). Almost half of the sample reported at least one additional BFRB, and skin picking and nail biting were most frequently reported. More than half (62%) of the parents in this sample reported seeking professional help for their child's hair pulling, and behavioral treatment was the most common form of intervention. However, 25% of the children also had received medication, typically, antidepressants, which is alarming given that no study has examined the efficiency of these medications for childhood HPD (Walther et al., 2014).

Various behavioral treatment strategies have been used for HPD, and although only a few studies involving children have used group -design or controlled single-subject design methodologies, there is evidence that individual HRT and CBT are promising treatments (Woods & Houghton, 2015). CBT training for HPD in children is a heterogeneous treatment package that not only shares several components of HRT (awareness training, competing response training, and relapse prevention) but also includes stimulus control and several cognitive therapy techniques, such as cognitive restructuring and covert modeling (Franklin & Tolin, 2007). Tolin, Franklin, Diefenbach, Anderson, and Meunier (2007) treated 46 children and adolescents with trichotillomania with a combination of HRT and CBT. They found large and significant reductions between baseline and posttreatment. On follow-up, treatment effects were maintained for severity and depression indices, but partial relapse occurred on measures of therapeutic response and anxiety. In another group study of 24 children and adolescents who had clinically significant hair pulling, HRT (awareness training, competing response training, relaxation training, social support) was tested against a minimal attention control condition (psychotherapy placebo). There was significant improvement in the behavior therapy group compared to the control group (Franklin, Edson, Ledley, & Cahill, 2011). Another group study compared *massed negative practice* (MNP; actively repeating the symptom for a set period of time) to HRT (Azrin, Nunn, & Frantz, 1980). Out of the 34 participants in the study, there were only four children. The MNP condition had negligible effects, but all of the children and 91% of the participants in the HRT group had significant reduction in hair pulling, with 87% maintaining the gains in a 22-month follow-up.

The style of pulling may be helpful in determining the best treatment approach. Franklin, Zagrabbe, and Benavides (2011), in a review of the literature, indicated that automatic pulling (pulling without awareness and often in context of sedentary activities) appears to be highly responsive to tactile antecedents (e.g., touching head with fingertips). Therefore, automatic hair pulling is more responsive to behavioral techniques that comprise HRT, particularly awareness training of environmental and tactile antecedents of pulling, stimulus control (making the environment less conducive to pulling), and a competing response. Focused pulling seems to be more responsive to affective and cognitive antecedents and may require interventions that address these antecedents more directly, such as dialectical behavior therapy (DBT), which is a therapy designed to help people change problematic patterns of behavior, such as self-harming, through building skills to tolerate and regulate emotions. Most children and adolescents engage in more automatic than in forced pulling and are therefore more responsive to behavioral techniques.

Although various medications (e.g., clomipramine, desipramine, fluoxetine, naltrexone) have been used to reduce hair pulling in adults with mixed results, there have been no controlled trials with children (Baer, Osgood-Hynes, & Minichiello, 1999). Selective serotonin reuptake inhibitors (SSRIs) have not been found to be effective, but an open-label trial of naltrexone with 14 children reduced hair pulling and urges, with no significant side effects (De Souza, 2008).

OBSESSIVE–COMPULSIVE DISORDER

According to DSM-5 (APA, 2013), to be diagnosed with OCD, children must display obsessions or compulsions, or both. *Obsessions* are recurrent or persistent thoughts or urges that are intrusive and unwanted, and cause anxiety and stress; *compulsions* (or rituals) are repetitive behaviors or mental acts that a child feels compelled to perform in response to an obsession or according to rules that must be applied rigidly. The goal of compulsions is to reduce the anxiety and stress caused by obsessions or to prevent a feared event. The obsessions and compulsions must be time-consuming (more than 1 hour a day) and cause clinically significant distress and/or impairment. The symptoms cannot be due to the physiological side effects of a substance (a drug of abuse or medicine). OCD and related disorders that have a cognitive component have a DSM-5 insight specifier regarding whether the beliefs are true, ranging from *good or fair insight* to *poor insight,* to *absent insight/delusional beliefs* (APA, 2013). Children may not understand that their obsessions are irrational or that the compulsions are aimed at decreasing anxiety or stress (APA, 2013). Thus, insight may vary according to developmental stage and influence the course of treatment for children and adolescents. Another specifier is a current or past history of a tic disorder.

Compulsions are more observable in children than obsessions, but children can exhibit both compulsions and obsessions. Compared to adults, children's obsessions are usually developmentally relevant, with higher rates of harm-focused anxious thoughts such as fears of catastrophic events or a death or illness to self or loved ones; adolescents have higher rates of doubt, and sexual and religious obsessions (Kalra & Swedo, 2009). Prevalence for children is reported between 1 and 4%, with average age of onset between ages 7.5 and 12.5 years (Boileau, 2011). Boys manifest symptoms earlier (25% have onset before age 10 years) and are likely to have associated tic disorders (Rapoport & Shaw, 2015). OCD has a complex etiology, including temperament (greater internalizing symptoms, higher negative emotionality, and behavioral inhibition), environment (traumatic events such as physical and sexual abuse, or various infectious agents and postinfectious autoimmune syndrome), and genetic and physiological factors (strong genetic link with dysfunction in orbitofrontal cortex, anterior cingulate cortex, and striatum) (APA, 2013). Early age of onset appears to represent a more familial form of the disorder, particularly with ordering compulsions (Leckman, Bloch, & King, 2009), compared to a study of adult onset OCD, which found no first-degree relatives with OCD (Nestadt et al., 2000). In addition, early onset of OCD is more frequently associated with tics and/or Tourette's disorder (Chabane et al., 2005). Another distinct subtype involving acute onset are children with a possible infectious trigger or pediatric autoimmune neuropsychiatric disorder associated with streptococcal infections (PANDAS; Rapoport & Shaw, 2015).

In general, children with OCD have higher rates (up to 80%) of comorbidity with other disorders including movement disorders (tics), anxiety disorders, autism spectrum disorder, ADHD, depressive disorders, intellectual disability, and conduct/oppositional defiant disorders (Langley, Lewin, Bergman, Lee, & Piacentini, 2010; Rapoport & Inoff-Germain, 2000). The comorbidity of OCD with so many other disorders can make it a challenge to diagnose. The severity criterion helps avoid confusion of OCD with many childhood habits that are part of typical development, and both the content and relative insight into the unreasonableness of the thoughts/behaviors differentiate OCD from other disorders (Rapoport & Shaw, 2015).

OCD is usually a chronic disorder; a 9-year follow-up study showed a persistence rate of 41%, with 40% of the participants having a psychiatric diagnosis in addition to OCD (Micali et al., 2010). Duration of the illness at the time of diagnosis predicted persistence, and severity predicted other psychiatric disorders. Secrecy appears to be a hallmark of childhood-onset OCD, in that children appear to recognize that their behaviors are nonsensical and go to great lengths to hide them from parents. Children also may expend great effort to control the behaviors in public, then "let go" at home, and this partial voluntary control can baffle parents (Rapoport & Shaw, 2015). Thus, children can be symptomatic for months and years without parents realizing the extent of the behavior and level of impairment. In fact, when children are finally referred for treatment, they are better informants than their parents: One study revealed that only 0.3% of parents identified OCD symptoms compared to 2.5% of children reporting symptoms (Rapoport et al., 2000). Given the chronic and debilitating nature of OCD, the assessment process is especially important to ensure early intervention.

The hallmark of treatment for children with OCD is CBT with exposure and response prevention (ERP), with significant evidence to support its efficacy (Barrett, Farrell, Pina, Peris, & Piacentini, 2008; Freeman et al., 2014; Pediatric OCD Treatment Study [POTS] Team, 2004). ERP involves constructing a hierarchy of increasingly intense anxiety-provoking situations that trigger obsessional thinking, then gradually exposing the child to these situations with encouragement to refrain from compulsive behaviors (March & Mulle, 1998). As the child progresses through the hierarchy, the situations can be tolerated with minimal anxiety, resulting in an ever-decreasing urge to engage in compulsions. ERP is usually combined with other behavioral techniques, such as anxiety management training and extinction (e.g., instructing parents not to give reassurance when a child compulsively asks for it). In addition, cognitive components are frequently added that directly address an inflated sense of responsibility for harm, excessive self-doubt, and thought–action fusion (that thinking of a harmful act is the same as doing it), which have been found to be important etiological and maintaining factors for adults with OCD (Salkovkis, 1996). It is not clear whether the cognitive components are necessary for children, but designing treatment to fit the symptom profile of a child is important. For example, ERP has been shown to be effective for children under age 11, particularly those with symptoms of contamination and symmetry rituals (Barrett, Healy, & March, 2003), and cognitive approaches may work best with a child evidencing obsessional moral guilt or pathological doubt.

It is essential to involve the family in treatment. Psychoeducation can help the family avoid punitive responses or, alternatively, family accommodation to the rituals. Coercive and disruptive behaviors, including attacks or rage, are often associated with family members' attempts to limit OCD symptom expression, and behavioral management of these episodes is critical to successful treatment (Storch et al., 2012).

Treatment for children with OCD has been conducted in a variety of modalities, including individual, group, self-help interventions, intensive day treatment programs, and computer-based delivery systems (e.g., Barrett et al., 2008; Freeman et al., 2014; National Institute for Health and Care Excellence, 2005; Storch et al., 2010). CBT is an effective treatment, but it is a homogenous treatment that includes variations of the core CBT model (e.g., cognitive focus, exposure only). Therefore, choosing the best treatment can be challenging and requires a functional analysis of each child's symptoms and the family response/environment. In addition, about 30% of the pediatric population exhibit little or no response to treatment (Rapoport & Shaw, 2015) with factors such as severity of the symptom profile, complexity of comorbidity, family dysfunction, resources available within the family, and local health care services likely to determine treatment outcome (Freeman et al., 2014; Ginsburg, Kingery, Drake, & Grados, 2008).

The American Academy of Child and Adolescent Psychiatry (2012) gives expert consensus on the treatment of OCD including pharmacological treatment. Clomipramine and SSRIs (sertraline, fluoxetine, paroxetine, and fluvoxamine) have been shown to be effective in the treatment of OCD (Geller et al., 2003); clomipramine was superior to all SSRIs, which did not differ from one another. However, clomipramine is associated with several adverse side effects (heart failure), and SSRIs, although generally well tolerated, have a range of side effects, including nausea, headache, and agitation, in addition to increased suicidal ideation.

The POTS multicenter study (2004) randomized 112 children to sertraline (an SSRI), CBT, combined treatments, or pill placebo for 12 weeks. They found all active treatments superior to placebo, and the combined treatment of CBT and sertraline was superior to either sertraline or CBT alone, which did not differ from one another (POTS, 2004). They also found that the combined treatment was less susceptible to setting-specific variations, which may make it the treatment of choice. A more recent study indicated that the addition of individual CBT to medication management resulted in significantly greater response rates than medication management alone (Franklin, Sapyta, et al., 2011). Overall, medication alone is effective, generally safe, and well tolerated, but CBT still appears to be the best first-line treatment and enhances the use of SSRIs or clomipramine. Rapoport and Shaw (2015) indicate that the parents and child should be made aware of the common side effects of medication, the need for a 12-week treatment trial, and that the partial or complete failure of the first SSRI should prompt treatment with CBT and possibly another SSRI. They also point out that given the potentially chronic nature of OCD, it is recommended that medication continue for a minimum treatment period of 6 months following full remission.

TIC DISORDERS

In the course of typical development, children between ages 4 and 8 years often engage in transient tics, such as eye blinking and shoulder shrugs. It is important, however, for the clinician to be aware of the nature of childhood tic disorders. Tic disorders in DSM-5 (APA, 2013) are listed under neurodevelopmental disorders and are characterized by sudden, rapid, recurrent, nonrhythmic motor movement or vocalization.

DSM-5 lists four types of tics: (1) Tourette's disorder (TD; both multiple motor tics and one or more vocal tics present at some time, although not necessarily concurrently); (2) chronic motor or vocal tic disorder (single or multiple motor or vocal tics, but not both motor and vocal tics); (3) provisional tic disorder (single or multiple motor and/or vocal tics that have been present for less than a year); and (4) other specified and unspecified tic disorders (the tics are atypical in presentation, age of onset, or have a known etiology). In addition to these criteria for specific tic disorders, all of the tic disorders have the following common criteria: The tics have a childhood onset (before age 18 years), persist for more than 1 year since the first tic onset (i.e., the person can be tic free for weeks or months, but the tics have persisted for more than a year), and are not attributable to physiological effects of a substance or another medical condition. The tic disorders are hierarchical in order: Once a tic disorder at a higher level of the hierarchy is diagnosed, a lower hierarchy diagnosis cannot be made (i.e., TD, followed by persistent [chronic) motor or vocal tic disorder, followed by provisional tic disorder, followed by the other specific and unspecific tic disorders; APA, 2013).

It is estimated that 6–13% of all children will experience a transient tic at some point during childhood; 4.5% of boys and 2.7% of girls will experience a simple tic; 1–2% will experience a chronic tic disorder (Sandler, 2011). TD has a prevalence estimate of 5.6 per 1,000 children (Khalifa & von Knorring, 2003, 2005; Kraft et al., 2012); the male-to-female ratio varies from 2:1 to 4:1 (APA, 2013), but estimates have varied across epidemiological studies (Scahill, Dalsgaard, & Bradbury, 2013). Risk factors for tics include genetic transmission, adverse perinatal problems, gender-specific endocrinological factors, and antecedent infections and immune responses (Leckman & Bloch, 2015).

According to DSM-5, tic disorders share a number of common characteristics:

1. Tics are common in childhood and transient in most cases. Onset of tics is typically between ages 4 and 6 years, with peak severity between ages 10 and 12 years, declining in severity in adolescence; most adults have fewer symptoms. However, the most severe and debilitating forms of tic disorders are seen in adulthood (Leckman & Bloch, 2015). It is rare for tic onset to occur in adolescence or adulthood. Race, ethnicity, and culture are similar across tics, but can influence how they are perceived or managed.

2. Tic symptoms are similar for males and females, all age groups, and across the lifespan. They wax and wane in severity and change over time in affected muscle groups and vocalizations. By age 10 years, most children will report an urge or somatic sensation (an itch or tickling sensation) before the tic, and tension reduction after the tic. The urge can be resisted and, for some individuals, there is a need to perform it in a certain way or repeat it until it feels "just right." Thus, tics can have involuntary and voluntary aspects.

3. Tics can be simple or complex. *Simple tics* are of short duration (i.e., milliseconds); *simple motor tics* include eye blinking, mouth puckering or stretching, shoulder shrugging, and extension of extremities; *simple vocal tics* include throat clearing, sniffing, and grunting. *Complex tics* are of longer duration (i.e., seconds) and although not purposeful, may appear so; *complex motor tics* may include a combination of simple tics (e.g., odd facial expressions, shadow punching, tapping, hopping, stomping) and appear purposeful (e.g., a tic-like sexual or obscene gesture or imitation of someone's movements); c*omplex vocal tics* may include repeating one's sounds or words/sentences (*uh, huh, all right, yeah,* swearing, and obscene language that includes noises, racial or colloquial insults, which are abrupt, sharp, barking or grunting utterances). While not

done purposefully, imitating a gesture or sound of another person can be a particular problem when interacting with authority figures (teachers, police, etc.). Genetic and environmental factors may influence expression and severity of the tics (APA, 2013; Leckman & Bloch, 2015).

4. Tics can increase with anxiety, excitement (e.g., anticipating an event), exhaustion, and stress (e.g., taking a test). Tics can also appear as a residual state, in which a predictable repertoire of tic symptoms may be seen only during periods of heightened stress or fatigue (Leckman & Bloch, 2015).

5. Tics can be suppressed for minutes to hours and attenuated during an interesting activity. They are reduced or absent during sleep.

6. Comorbidity changes with age: Prepubertal children are more likely to have ADHD, OCD, and separation anxiety disorder; teenagers and adults experience new onset of major depressive disorder, substance abuse disorder, or bipolar disorder. Women with persistent tics are more likely to experience anxiety and depression.

7. Mild to moderate tic severity usually does not cause distress or impairment in functioning, and severe symptoms generally cause some impairment in daily living, but even individuals with moderate to severe tic disorders may function well. Factors related to resiliency or impairment likely include the presence of additional developmental, mental, or behavioral disorders; the level of support from family, peers and school; and the presence of special abilities or personal attributes (Leckman & Bloch, 2015).

Given the transient nature of many tics, the focus of treatment is on chronic motor and vocal tics and TD. These tic disorders can wax and wane over time and can continue through adolescence and young adulthood; therefore, continuity of care is important. There is no “prototypical child” with a tic disorder, and intervention approaches have to focus on the specific needs of the child and the family at a particular age or developmental stage.

Providing education about tics and their natural course of progression to the child, family, school, and peers can have a positive effect on expectations and relationships. For example, describing the natural course of tic disorders can help both children and parents understand why it makes sense to wait before medications are used.

Given the individual nature of the presentation of tics and their varying antecedents and consequences, it is always helpful to start with a functional analysis of the tic. HRT is the first line of treatment for children with tics (McGuire, Piacentini, et al., 2014; Piacentini et al., 2010; Wile & Pringsheim, 2013; Wilhelm et al., 2012). Woods et al. (2008) proposed the term *comprehensive behavioral intervention for tics* (C-BIT) instead of HRT to avoid any suggestion that patients were intentionally engaging in the behavior. Therefore, the literature often uses the terms C-BIT and HRT interchangeably. C-BIT includes a number of techniques: awareness training, self-monitoring, contingency management, inconvenience review, relaxation, and competing responses.

Another promising treatment is adding acceptance and commitment therapy (ACT; Franklin, Sapyta, et al., 2011) to HRT to enhance treatment outcomes for patients with distressing cognitions/urges and other distressing emotions. As applied to TD, ACT focuses on teaching patients to behave flexibly in the presence of (1) uncomfortable premonitory urges, (2) emotional distress associated with the tics (e.g., embarrassment about tics in public or meeting someone new), and/or (3) cognitive symptoms associated with comorbid psychiatric conditions such as OCD and ADHD. A promising treatment for chronic tics is ERP (Piacentini & Chang, 2006), which focuses on exposure to premonitory urges. Exposure to the urge occurs by having the patient suppress the tic for long periods while the clinician coaches him or her through the process (Verdellen et al., 2008). This treatment approach does not, however, teach specific strategies for inhibiting the tics.

A number of children with TD report behavioral symptoms such as temper outbursts, irritability, self-injurious behavior, and aggression (Leckman & Bloch, 2015). These symptoms are often intertwined with OCD and ADHD symptoms and may be challenging to treat.

Pruitt and Packer (2013) give evidence that educating school personnel can ensure the child a safe and secure environment in the classroom. For example, finding ways to help the child learn or take tests even during periods of severe tics; providing assistance and helping students learn ways to deal with unstructured situations (e.g., cafeteria, gym, bus), which are high risk for teasing/bullying; allowing short breaks outside the classroom to "let the tics out" in private, and being flexible with scheduling (e.g., no oral presentations when tics are severe) not only help the child's self-esteem but also model good problem-solving skills. Peers and classmates can be tolerant and supportive, and disregard the behavior if they know what the problem is (Leckman & Bloch, 2015).

Given that tics can come and go and that the data on pharmacological treatments for children are scarce, it is not recommended that medication be used unless the severity of the symptoms and the tics is a source of significant impairment (Fonagy et al., 2015; Leckman & Bloch, 2015). However, a variety of drugs have been used to treat tics (Yang et al., 2016; Roessner et al., 2013). The goal should be to use the smallest dose of medication possible to make the tic more tolerable, rather than try to eliminate the tic given the risk of overmedicating (Leckman & Bloch, 2015). Many children can be treated without medication, but when patients present with coexisting ADHD, OCD, depression, or bipolar disorders, it is often best to treat these comorbid disorders first, because successful treatment of these disorders often decreases tic severity.

The use of medical management has been primarily reserved for tics associated with Tourette disorder (for reviews see Leckman & Bloch, 2015; Roessner et al., 2013; and Yang et al., 2016). The most predictable and effective tic-suppressing medication in the short term is haloperidol, with 66% improvement compared to placebo (Scahill et al., 2006). However, the negative side effects (acute dystonia, sedation, depression, school and social phobia, weight gain, and tardive dyskinesia) negate its use for any length of time. Risperidone has also been effective in reducing tics (35–55% reduction; Scahill et al., 2006) but, again, the negative side effects of weight gain, lipid metabolism abnormalities, sedation, and sleep disturbances discourage its use (Leckman & Bloch, 2015). Botulinum toxin injection, which can also be used to temporarily weaken muscles associated with severe motor and vocal tics, appears effective and, in some cases, recurrent use can significantly reduce premonitory urges associated with both vocal and motor tics in injected sites (Curtis, Clarke, & Rickards, 2009). Tricyclic antidepressants (e.g., desipramine) should be avoided due to potential cardiac arrest (Leckman & Bloch, 2015).

For children between ages 7 and 17 years with comorbid OCD and tic disorders, treatment with sertraline or other SSRIs did no better than placebo in the treatment of their OCD symptoms (March et al., 2007). However, when treated with CBT (Exposure and Response Prevention) and sertraline, both the tics and the OCD symptoms were reduced. In a large-scale multisite, randomized, double-blind clinical trial of 136 children with comorbid ADHD and chronic tic disorder, there were significant improvements in ADHD and tic symptoms with clonidine alone and with methylphenidate alone (Tourette's Syndrome Study Group, 2002). The greatest benefit occurred with the combination of clonidine and methylphenidate. Leckman and Bloch (2015) reported that other studies and case reports have revealed that stimulants can increase tics, and recommend that supratherapeutic doses of dextroamphetamine be avoided with children who have comorbid tic and ADHD disorders. Methylphenidate offers the greatest and most immediate improvement of ADHD symptoms and typically does not increase the severity of tics (Bloch, Panza Landeros-Weisenberger, & Leckman 2009).

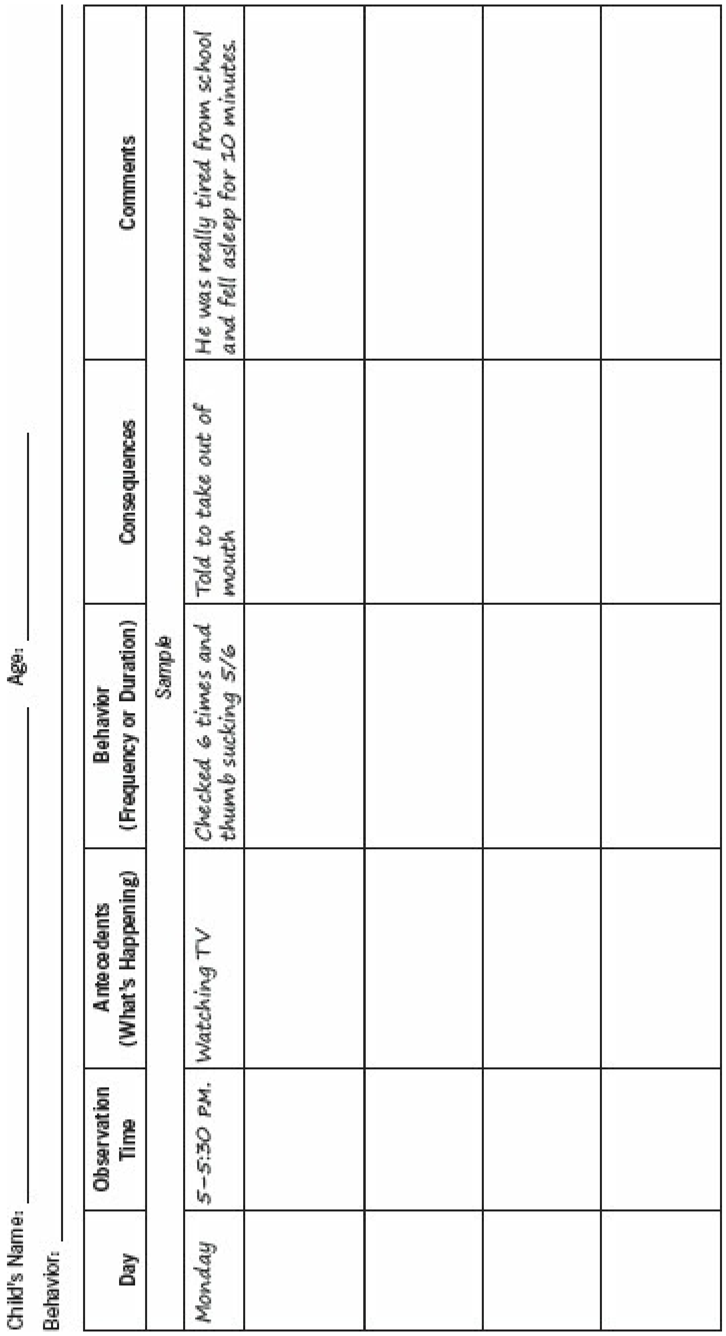
ASSESSMENT OF HABITS, OBSESSIVE–COMPULSIVE BEHAVIORS, AND TICS

Habits or tics may present as isolated behaviors or may be part of a larger constellation of problems. Referral for clinical evaluation and treatment of a habit or tic usually indicates that the behavior has continued longer than is typical; has become severe or chronic enough to cause physical damage; or is engaged in so frequently that it interferes with ongoing physical, social, and/or cognitive development. The assessment process presented here follows the Comprehensive Assessment-to-Intervention System (CAIS; see Chapter 2), with an emphasis on factors that are particularly important in assessing habits and tics.

Step 1: Initial Contact

Parents should complete a form for background information (e.g., our General Parent Questionnaire; see Appendix B). Other questionnaires that should be completed by each parent include the Behavior Assessment System for Children, Third Edition (BASC-3; Reynolds & Kamphaus, 2015) or the Child Behavior Checklist (CBCL; Achenbach, 2013; Achenbach & Rescorla, 2001a, 2001b) to screen for coexisting behavioral–emotional problems; the Eyberg Child Behavior Inventory (ECBI; Eyberg & Pincus, 1999) to determine the level of compliance to parent requests in daily activities; and the Parenting Stress Index, Fourth Edition (PSI-4; Abidin, 2012) for information on the child's temperament and the parents' general level of stress. In addition, the parents should be asked to complete the Habit Diary (see Figure 6.1) for at least 1 week prior to the initial interview, to gather specific information on the frequency, topography, antecedents, and consequences of the behavior (e.g., tics, hair pulling, thumb sucking). It is usually best to ask the parents to gather this information at the time of day when frequency of the behavior is likely to be at its highest level. Although the specific time and length of the observation period should be consistent each day, it should also be set to fit the family's schedule, as this will increase the likelihood of getting consistent data. It is important to review the Habit Diary to determine whether the data represent "typical" behavior on the child's part and "typical" responses by parents to the behavior. Gathering this information is a difficult task, especially if the child is exhibiting complex tics or the behavior is affected by environmental changes. Yet even if the data are not entirely accurate, they give the clinician some baseline information about the behavior and the parents' response to it.

Habit Diary



Child's Name: __________ Age: __________

Behavior: __________

Day	Observation Time	Antecedents (What's Happening)	Behavior (Frequency or Duration)	Consequences	Comments
			Sample		
Monday	5–5:30 P.M.	Watching TV	Checked 6 times and thumb sucking 5/6	Told to take out of mouth	He was really tired from school and fell asleep for 10 minutes.

FIGURE 6.1. Chart for recording the frequency with which habits and tics occur.

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Several rating scales have been developed to help evaluate habits and tics (see Appendix A). In reviews of scales for tics, the Yale Global Tic Severity Scale (YGTSS; Leckman et al., 1989; Woods et al., 2008) was shown to be easy to use, in a semistructured interview format that allows for multiple informants. A checklist format is used, in which child and parent can record whether a particular motor or vocal tic has ever occurred or is currently occurring, the age of onset, the number, frequency and intensity, level of interference with daily functioning, and impairment. There is also a column for the clinician to record tics observed during the interview.

A scale to aid in assessing HPD is the Psychiatric Institute Trichotillomania Scale (PITS; Winchel et al., 1992), a clinician-rated measure used in a semistructured interview to address the history and current status of hair-pulling behaviors (sites, severity, duration, resistance, interference, and distress). It can also be used to monitor the progress of treatment. A self-report scale is the Massachusetts General Hospital Hairpulling Scale (MGH-HPS; Keuthen et al., 1995). The Nailbiting Severity Scale (Leonard, Lenane, Swedo, Rettew, & Rapoport, 1991) has been adapted from measures used to assess TD. It consists of five items: the amount of time spent nail biting each day, intensity of the urge to bite nails, resistance exerted against nail biting, amount of distress caused by nail biting, and the extent to which nail biting interferes with the child's functioning.

The Children's Yale–Brown Obsessive–Compulsive Scale (CY-BOCS; Goodman et al., 1989), a clinician-administered scale that measures the severity of obsessive–compulsive symptoms in children, includes sections on contamination, hoarding, symmetry, counting, religion, and aggression. It can be completed by the child/adolescent and parent separately or together. Additionally, the parents' periodic use of the Hopkins Motor and Vocal Tic Scale (Walkup, Rosenberg, Brown, & Singer, 1992) can be very helpful both in the assessment process and in charting the course of treatment.

Step 2: Initial Intake Interview

It is important to have an opportunity to interview at least one parent (or both, if possible) and the child on the first contact. The child may be included in the parent interview, but there should also be an opportunity to interview the child alone. Leckman and Bloch (2015) provide an outline for the clinical evaluation of tic disorders and closely related conditions.

Parent Interview

The parent interview should focus on the following areas:

1. *Developmental history*. A review of the General Parent Questionnaire indicates questions in this area that should be followed up in the interview.
2. *Medical history*. Were there any prenatal, perinatal, or postnatal risk factors? For

TD, Santangelo et al. (1994) found that fetal exposure to relatively high levels of coffee, alcohol, and cigarettes, as well as delivery complications (especially forceps delivery), increased the association of OCD with TD. Have there been major illnesses or hospitalizations? What are the medications the child is currently taking or has taken in the past (both prescription and nonprescription)? Has the child been evaluated by a family physician or pediatrician, dermatologist, or neurologist to rule out possible organic causes for the habit or tic?

3. *Course of the behavior and current status.* When was the behavior first noticed? What does it look like, and has it changed in topography (e.g., initially just thumb sucking and now thumb sucking and hair pulling), frequency, intensity, complexity, and associated disruptions? Is there a presence of premonitory sensations and the ability to suppress the behavior? When does it occur (e.g., is it situation- or time-specific)? Are there times when it occurs more frequently (e.g., when the child is under emotional stress, concentrating, expressing anger or excitement, or in particular situations)? What events typically precede or follow the behavior? What is the parental response to the behavior? How do siblings or peers respond to the behavior? How have teachers responded to the behavior? What have parents been told about the behavior? What have they done about the behavior thus far? It is also important to get a documentation of life events that may have occurred with the onset and exacerbation of habits or tic symptoms, the stability of family life, parental coping skills, and social support available to the parents.

4. *Family history.* A family history of similar behavior is important in the assessment of habits, OCD, and tic disorders. Whether environmental or genetic factors play a part is not always clear, but a family history of similar problems often dictates how the parents respond to the behavior. Children with tics are more likely than other children to have parents or extended family members with a history of these behaviors.

5. *Impact of behavior on the child and parents.* Is the behavior interfering with the child's academic performance, social relationships/participation in social activities, or self-esteem? In addition, how is the child's behavior affecting the parents? The parents' views of the problematic behavior and the impact it is having on them, their relationship with the child, and other significant people in the child's life are often the determining factors in seeking treatment for habits, tics and obsessive–compulsive behavior.

6. *Associated behaviors.* Determining the presence of other behavioral or emotional problems that may be associated with or occur simultaneously with the behavior in question is important in deciding on the advisability of treating the presenting problem or initially focusing on areas that exacerbate the problem (refer to screening scales). School performance should be assessed, because learning problems may occur due to poor attention, obsessions, or compulsions. Other problems (e.g., poor parent–child relationship, the child's lack of assertiveness in a stressful situation) may make it

difficult to treat a habit or tic successfully. Intervention in these areas does not mean that the habit or tic will decrease in intensity or stop, but it sets the stage for more effective treatment subsequently of the habit, tic, or obsessive-compulsive behavior.

Child Interview

As noted earlier, the child should be seen alone at some point during the initial contact. The focus of the interview should be on the child's general adjustment to family, school, and friends, as well as on his or her perception of the presenting problem. Is the child aware of when and where the behavior occurs? Why does the child think the behavior occurs? Is there a feeling of relief after the behavior occurs? Is the behavior a concern to the child? Does the child perceive it as interfering in his or her life? Do people comment on the behavior? What has the child done to resolve the problem? What is the child's perception of the parents' response to the problem? Does the child want treatment for the problem?

Step 3: Observation of Behavior

The Habit Diary provides initial parent observational data on the behavior. For oral habits, hair pulling, breath holding, tics, and obsessive–compulsive behaviors, it is useful to have the parents continue to keep a record of the behavior in order to monitor progress in treatment. Additional observational methods, such as taking pictures of the nails, measuring their length, counting the number of hairs in bald spots, and recording the number of times the behavior occurs in the treatment session, can be effective ways to measure progress.

The child may engage in some habits, such as hair pulling, bruxism, or obsessive–compulsive behaviors, covertly or at times that make it difficult to monitor the behavior. The clinician has to be creative in finding methods to gather these data. Watson and Sterling (1998), for example, have described using a sound-activated tape recorder to record a child's nocturnal bruxism, and using a video camera to record a 2-year-old's hair pulling that occurred only during sleep. During clinical interviews, children with tics can often suppress or cover up tics or obsessive–compulsive behaviors, so videotaping such a child in the room without the clinician may be helpful.

Step 4: Further Assessment

For most isolated habits, there is no need for an assessment to include standardized tests or costly in-home or school observations. Given the high comorbidity of OCD with other disorders, the clinician should screen for tics, anxiety disorders, autism spectrum disorder, ADHD, intellectual disabilities, and conduct/oppositional defiant disorder. For TD, the clinician should evaluate the child for visual–motor, fine motor, and learning problems; for both OCD and tics, the teachers and parents should be asked to fill out an appropriate questionnaire to screen for ADHD (see Chapter 9); the teacher should be asked to complete the BASC-3 Teacher Rating Scale and the Sutter–Eyberg Student School Behavior Inventory (see Appendix A); the child should be assessed for anxiety disorders; and an older child should be asked to complete the self-report form of the BASC-3 to assess for other problem behaviors.

Step 5: Collaboration with Other Health Care Professionals

If a child has not been seen recently by a physician, the clinician should consider making a referral to the child's physician to rule out positive neurological problems. If a child is having eye tics, it may make sense to make a referral to an optometrist or ophthalmologist to assess any sight issues. If there is any suspicion of TD, a referral to a physician should be made in the event that medication is necessary. If a child has OCD (or comorbid OCD and TD), he or she should be referred to a pediatric neurologist given the potential neurological etiology. Similarly, if oral habits are causing physical damage, the child should be referred to a dentist.

Step 6: Communication of Findings and Treatment Recommendations

Findings and treatment recommendations should be discussed in the context of the CAIS (see Chapter 2), with emphasis on the area(s) in which intervention is needed (child, parents, environment, consequences of behavior, and/or medical/health aspects).

The clinician plays an important role in sharing information on the natural course of a particular habit or behavior, the advisability of treatment, and the available treatment options. Although the clinician can teach the family intervention strategies, the child and parent are often responsible for carrying out the treatment program. Hence, it is very important for them to understand the nature of the behavior, the rationale and steps for successful treatment, and to be committed to the treatment program. An inconsistent approach to eliminating troublesome habits and behaviors is sure to fail.

TREATMENT OF HABITS, OBSESSIVE–COMPULSIVE BEHAVIORS, AND TICS

In the overview of the various habits, obsessive–compulsive behavior, and tics, a number of treatment approaches have been discussed. There is general agreement that simple habits such as thumb sucking, nail biting, and rituals should not be treated before age of

4 or 5 years (Blenner, 2011) unless they cause significant impairment or distress for the child and/or parents. Giving the parents information about the habit and its developmental stage, and advising the parent to ignore the behavior rather than punish or nag the child is usually sufficient. When habits, obsessive–compulsive behaviors, and tics become severe enough to interfere with the child's functioning and well-being, then interventions should include (1) the child (teaching new skills, decreasing the problematic behaviors); (2) the parents (changing parents' expectations, attitudes, and beliefs; teaching new parenting techniques); (3) the environment (changing the cues that set off the behavior, helping the parent find support networks, and helping the child–family cope with life events); (4) the consequences of the behavior (changing parents' and others' responses to the behavior and changing the "payoff" or reinforcers for the child; and (5) when appropriate, medical treatment that either intervenes in the cause of the problem or treats the effect of the problem. These areas of intervention have been covered in the overviews of each problem and, in particular, for HPD, OCD, and tic disorders. Given the importance of HRT in treatment of these behaviors, we focus in this section on the specific components of HRT.

Behavioral therapy techniques, in particular HRT or C-BIT, and related CBTs are the recommended first line of treatment for a variety of habits, tic disorders and obsessive–compulsive and related behaviors (e.g., Barrett et al., 2008; Fonagy et al., 2015; Leckman & Bloch, 2015; Woods & Houghton, 2015). Although there have been few controlled group design and single-subject studies, which therefore limits the number of "evidence-based" therapies, there is enough evidence to recommend these interventions (Woods & Houghton, 2015; Yang et al., 2016).

Habit Reversal Training

HBT was first described by Azrin and Nunn (1973) as a method for treating nervous habits and tics. The number, length, and type of sessions needed for successful implementation of the habit reversal procedure have varied from one, 2-hour group session to 12 individual sessions lasting 1 hour each. A meta-analysis of behavioral treatment of HPD found that increased therapeutic contact is associated with higher treatment effects (McGuire, Ung, et al., 2014). The habit reversal procedure outlined by Azrin and Nunn (1973) has many components: awareness training (response description, response detection, early warning signs, situation awareness); competing response training; relaxation training; contingency management (habit inconvenience review, social support, public display); and generalized training (including symbolic rehearsal). Not all of the components may be necessary in the treatment of a particular behavior. Several researchers have suggested a simplified HRT with four components: awareness training, competing response training, relaxation training, and parental support (Miltenberger, Fuqua, & Woods, 1998; Woods, Miltenberger, & Lumley, 1996).

The clinician, however, should be aware of all the specific components of the procedure as used in the original studies; one or another component may be more or less useful for a particular child or situation. For example, C-BIT, as described by Woods et al. (2008) for the treatment of tics, includes awareness training, self-monitoring, contingency management, inconvenience review, relaxation, and competing response.

Awareness Training or Self-Monitoring

Awareness training includes 1) *response description,* in which the child is asked to describe the behavior in detail and reenact the behavior while looking in a mirror; (2) *response detection*, in which the clinician helps the child detect the occurrence and frequency of the behavior (e.g., record the behavior and/or alert child with a prearranged signal; (3) *early warning procedure*, in which the child is taught to become aware of the earliest signs of the behavior's occurrence (e.g., touching hands to lips; feeling an "itch" or urge); and (4) *situation awareness training,* in which situations that make the behavior more or less likely are identified (e.g., bored, test taking, reading, practicing competing behaviors before entering specific situations).

Competing Response Training

This training begins when the child has learned to detect the behavior and related urges, and/or signs, and is instructed to use a competing response at first detection of an urge or after each occurrence of the behavior and to hold it about 2 minutes, or until the urge passes. According to Azrin and colleagues (Azrin & Nunn, 1973; Azrin & Peterson, 1988), the competing response should be (1) the opposite of or incompatible with the habit response; (2) capable of being maintained for several minutes; (3) socially inconspicuous, so that it is compatible with ongoing activities; (4) able to strengthen the muscles antagonistic to those used when engaging in the habit behavior, and (5) able to produce a heightened awareness through tensing of the muscle. For tic movements, the isometric tensing of the muscles opposite those involved in the tic is recommended. For example, a competing response for shoulder jerking is the isometric contraction of the shoulder depressors. A competing response for a vocal tic is humming, or that for barking is slow, rhythmic, deep breathing through the nose while keeping the mouth closed. For thumb sucking, nail biting, and hair pulling, clenching of the fists has been shown to be an effective competing response. For tics, the child should be instructed to tense the muscles just tightly enough that the tic movement cannot occur, even when he or she is instructed to attempt to perform the movement intentionally. The most frequent and disruptive tic should be treated first, with one training session devoted to working on each type of tic. Recent work indicates that tensing the opposite muscle is not always necessary, and alternative competing responses can be selected, such as clenching the fist contingent upon a mouth twitch (Wilhelm et al., 2012).

Relaxation Training

Relaxation training is taught to reduce tension and decrease the frequency and severity of the habit or tic. A combination of methods is recommended, including progressive muscle relaxation, deep breathing, visual imagery, and self-statements of relaxation. The imagery helps the child imagine that he or she is in the ideal situation for relaxation. Practicing self-statements to "relax" or "be calm" during relaxation exercises helps the child relax at other times upon verbalizing the "calm" statement. Deep breathing is a form of relaxation that can be easily taught to children. It is most effective when exhalation is slightly longer than inhalation (5 vs. 7 seconds) and when the child inhales and exhales slowly without pausing. The goal of the training is for the child to relax on cue in stressful situations. Although relaxation has not always been found to be a necessary component of the habit reversal procedure, it may be very helpful when the behavior occurs in particularly stressful settings or situations.

Contingency Management

Contingency management is used to ensure that the child is highly motivated to carry out the treatment procedures. While most habits are involuntary, the child can be made aware of the behavior through awareness training and therefore be taught to bring the behavior under voluntary control. The first step is to increase motivation by doing a *habit inconvenience review*, in which the child and therapist discuss in detail the inconveniences, embarrassment, and suffering that result from the behavior, and the positive aspects and advantages of reducing or eliminating the behavior. Azrin and Peterson (1988) recommend that these inconveniences and positives be written on an index card, so that they can be carried and reviewed frequently, as a cognitive strategy to increase the motivation to use the treatment procedures. The parents and teacher should then *praise* the child for performing the exercises and for not engaging in the behavior. A token or chart system can also be used to reward the young or unmotivated child more concretely. If the behavior occurs at a high rate, the reward system can be dependent on not engaging in the behavior for a specified period of the day, and the time period can be gradually increased as the frequency of the behavior decreases. In some cases, it is necessary for the parent or teacher to prompt or guide the child through the exercises. If parent or child does not believe that the child has voluntary control over the habit, then a public display procedure can be used. This involves having family members observe the child's ability to control the behavior in the presence of the clinician, as well as having them inform other significant people in the child's life (teachers, siblings, relatives) that the behavior is under the child's control.

Generalized Training

In *generalized training,* the child is given practice and instruction on how to control the behavior in everyday situations. One method for doing this is *symbolic rehearsal,* wherein the child is asked to imagine the situations that are likely to be associated with the behavior and cue him- or herself to relax or engage in the required exercise. Also, if the child fails to detect an urge or habit response during the treatment session, the clinician prompts him or her to engage in the appropriate procedure.

CASE EXAMPLE: FROM TICS TO TOURETTE'S DISORDER

Step 1: Initial Contact

Mrs. Fox called regarding her 7-year-old son, Steve, who had exhibited a recent increase in eye blinking and head jerking. At Steve's last physical examination, she had discussed these behaviors with the pediatrician, who assured her that they were typical for children Steve's age, but that they might have gotten worse because of her recent marital separation and the resulting conflict over visitation. The clinician sent Mrs. Fox the General Parent Questionnaire, the ECBI, the CBCL, the PSI-4, and the Habit Diary (Figure 6.1) to complete and return prior to the initial interview. The General Parent Questionnaire indicated that Mr. and Mrs. Fox had separated 4 months previously and that Mrs. Fox had returned to school for her teaching degree. The marital separation had resulted in a recent move away from the family home, which was near her large extended family, as well as a significant decrease in income. Steve was in second grade at a local elementary school, and his 4-year-old sister was in a day care program. Steve was involved in many afterschool activities and had responsibility for age-appropriate chores, which he completed without problems. Mrs. Fox's responses to the other questionnaires indicated that Steve was a compliant child who had an easy temperament and was quite reinforcing to his mother. On the Parent Domain of the PSI-4, the only significant score was on the Depression scale, which Mrs. Fox later related to the separation and move. The only problems noted on the CBCL were a high frequency of tics, some worries about these, and a very high activity level.

Step 2: Initial Intake Interview

Parent Interview

Mrs. Fox said that she and Steve had openly discussed his tics, and that he was as eager to resolve them as she was, so he was included in the interview. Mrs. Fox said that Steve had no significant developmental or medical problems and had not taken any medication in the recent past. Furthermore, Mrs. Fox said that no one else in the immediate family exhibited tics, although her mother had told her that one of her brothers had had similar tics at about the same age as Steve. Mrs. Fox stated that Steve had engaged in some eye blinking at about age 4, but that the frequency had decreased up until the present time. She had not noticed any vocal tics. Mrs. Fox's current concern about the tics had begun with a phone call from the teacher to ask her about them. The teacher felt that other children were beginning to notice the tics and tease Steve. The teacher was also concerned that they might begin to interfere with Steve's ability to sustain attention. Moreover, Steve had asked his mother whether there were something he could do to stop the tics.

Steve was described as physically active, but this did not bother Mrs. Fox. Because he was in an "open" classroom, his high activity level did not cause problems in school. Although he had trouble completing written assignments and attending to academic work for more than 10 minutes at a time, he was doing relatively well in school.

The recent move had been difficult for all of the family members, because they enjoyed close relationships with the extended family, and the children's primary playmates had been cousins. They did, however, visit maternal grandparents every weekend. The parents' separation had occurred after many unhappy years of marriage, although there had been no open parental conflict prior to the separation; Mr. Fox had spent very little time at home. Visitation problems centered around the father's complaint that he was not able to see the children often enough, but Mrs. Fox said he refused to follow a set visitation schedule. The children did not feel they got to see enough of their father, and Mrs. Fox was at a loss as to how to increase contact with their father.

Child Interview

Steve presented as a pleasant child who readily described family activities and several new friends in school. Although school was not hard, he sometimes found it difficult to work "all day." He said he wished he could see his father more often. He reported that the family's daily routine had not changed much since the separation, except that his mother had to study after he went to bed at night.

Steve said that he wanted to stop blinking and jerking his head, because some of the children at school teased him and embarrassed him, and that the tics made it more difficult for him to complete his work in school. In addition to the tics, Steve reported increased compulsive behaviors (e.g., putting his pencil to his mouth, then laying it on the desk, before picking it up to write). During the interview, Steve's eye blinks increased when he was talking about the parental separation, and they decreased when he was involved in a game that required concentration.

Step 3: Observation of Behavior

The Habit Diary, which was completed during the half-hour after dinner each evening, indicated that Steve blinked 20–30 times on average, and that this was often followed by head jerking. There was no specific antecedent to these behaviors; they occurred across a variety of activities, and Mrs. Fox did not respond to them. Mrs. Fox later admitted that her nonresponse was the result of having made an appointment with the clinician, and that normally (but not consistently) she told Steve to stop. Mrs. Fox was asked to continue keeping track of Steve's tics with the Habit Diary throughout treatment.

During the parent interview, Steve played with cars on the floor, and his tics were quite obvious to the clinician. The mother–child interaction was positive; Mrs. Fox also proudly described Steve's many activities, athletic skills, and good relationship with his 4-year-old sister, who was described as "fun but fiery."

Step 4: Further Assessment

There were no major concerns about other areas of development at this time. The mother and teacher, however, were asked to complete the Conners' Parent and Teacher Rating Scales to gather further information on possible ADHD.

Step 5: Collaboration with Other Health Care Professionals

Steve had had a recent physical examination, and there was not sufficient evidence to suspect TD.

Step 6: Communication of Findings and Treatment Recommendations

The following information was shared with Mrs. Fox. In general, Steve appeared to be well adjusted in school, with peers, and at home. The clinician explained that the recent move and parental separation might have precipitated tics, which have a high incidence at Steve's age. It seemed important to decrease Steve's stress with regard to visitation with his father, as well as provide him with ways to decrease the frequency of tics.

Mrs. Fox was open to the possibility of regular and frequent visitation, and she agreed to ask Steve's father to make an appointment with the clinician or at least to contact her by phone, but he refused to do so. He said that Steve's problems were all related to the mother's desire to separate, and that if she would return to the marriage, Steve would be fine. Mr. Fox also refused to set up a regular visitation schedule. With the clinician's encouragement, Mrs. Fox decided on a visitation schedule that included Mr. Fox's having the children every other weekend and at any other time with 1 day's notice. She further agreed to transport the children to see their father one weekend a month. Mr. Fox was to let them know on the Wednesday before the weekend whether he planned to see the children. Mrs. Fox told the children about this plan; she said that she would send it in writing to their father, but that it was up to their father to carry it out. Unfortunately, over the next 4 months, Mr. Fox saw the children only 1 full day and several evenings.

Because of his high activity level, Steve was not able to engage in muscle relaxation. Thus, he was taught relaxation by deep breathing. He also learned habit reversal, with the competing response of opening his eyes wide for 30 seconds after each eye blink or before entering situations that were likely to result in eye blinking. This was successful in decreasing the eye blinks to an average of one or two times in the 30-minute home recording period. The head jerk was also treated through habit reversal by having Steve tense his neck in response to each head jerk. This tic also decreased within a 2-week period to a frequency of zero times to once during the 30-minute home observation period. Mrs. Fox and the teacher indicated that they rarely observed either tic over the next 2 months.

Two months after treatment ended, Mrs. Fox called to report that Steve was once again engaging in tics, but this time they involved the jerking of his arm and leg, as well as eye blinking. When Steve was seen by the clinician, he was easily shown habit reversal for these new tics. Significantly, however, Mrs. Fox reported that Steve would engage in the tics at a very high rate after periods of no tic behavior. Furthermore, though Steve engaged in very low levels of tics during two treatment sessions (apparently in order to please the clinician), the rate of tics increased dramatically after he left the clinic. It was also noted during the treatment sessions that Steve was clearing his throat a great deal, and he offhandedly told the clinician that "he had a tickle in his throat" and "probably just needed a cough drop." At this point, the clinician began to suspect TD, and Steve's pediatrician referred him to a pediatric neurologist, who confirmed this diagnosis.

The clinician had the opportunity to work with Steve and his mother over the next 4 years. During this time, Steve's sister was also diagnosed with TD. The focus of treatment was on helping the family cope with this chronic disorder, including consultation with the school, psychoeducational evaluations of both children (the sister also proved to have a learning disability), and teaching the children coping skills (defining stressful situations; using relaxation, habit reversal, and avoidance of stressful situations). Mrs. Fox was put in contact with the Tourette Syndrome Association, and both she and the children participated in local chapter meetings. Mrs. Fox became a strong advocate for her children, and provided teachers and the children's classmates with films and handouts describing TD.

RESOURCES FOR CLINICIANS

Leckman, J. F., & Bloch, M. H. (2015). Tic disorders. In A. Thapar, D. S. Pine, J. F. Leckman, S. Scott, M. J. Snowling, & E. Taylor (Eds.), *Rutter's child and adolescent psychiatry* (6th ed., pp. 757–773). West Sussex, UK: Wiley.

Piacentini, J., Langley, A., & Robleck, T. (2007). *Cognitive-behavioral treatment of childhood OCD: It's only a false alarm (therapist guide).* New York: Oxford University Press.

Woods, D. W. (2001). Habit reversal treatment manual for tic disorders. In D. W. Woods & R. G. Miltenberger (Eds.), *Tic disorders, trichotillomania, and other repetitive behavior disorders: Behavior approaches to analysis and treatment* (pp. 97–132). Boston: Kluwer Academic.

RESOURCES FOR PARENTS

Huebner, D., & Matthews, B. (2007). *What to do when your brain gets stuck: A kid's guide to overcoming OCD.* Washington, DC: Magination Press.

March, J. S., & Benton, C. M. (2007). *Talking back to OCD: The program that helps kids and teens say "no way"—and parents say "way to go."* New York: Guilford Press.

Wagner, A. P. (2013). *Up and down the worry hill: A children's book about obsessive–compulsive disorder and its treatment* (3rd ed.). Rochester, NY: Lighthouse Press.

Tourette Association of America
www.tourette.org

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[1] With the advent of pacifiers, many children prefer this method of sucking; for purposes of this discussion, sucking a pacifier is considered with the more "natural" thumb sucking.

CHAPTER 7

Fears and Anxieties

We all experience fear and anxiety as normal emotions during our lives. These emotions serve to elicit behaviors essential to survival and can also increase the motivation for learning adaptive skills. The stimuli that provoke fear and anxiety change with development in a way that corresponds to a child's increasing cognitive and physical abilities and the consequent new experiences. These emotions are such a "normal" part of a child's life that even excessive fears or anxieties are often not brought to the attention of mental health professionals until they seriously interfere with a child's functioning or family life.

The past 20 years have brought increased knowledge about anxiety disorders in children, and the empirical literature continues to grow regarding the etiology, assessment, and treatment of children with these symptoms. Children tend to be diagnosed with fewer anxiety disorders than do adolescents and adults, but children who have anxiety disorders typically have multiple problems and often live with parents who themselves suffer from psychiatric symptoms. Furthermore, anxiety disorders in children persist longer than previously thought, and a child who has had one episode of an anxiety disorder is at high risk for further episodes. Depression often occurs along with anxiety disorders, and this further increases the risks for children. The goal of the clinician is to differentiate children with clinically significant fears and anxieties from those whose fears and anxieties are a typical part of development. In addition, a number of children who exhibit subclinical levels of anxiety symptoms may be experiencing such marked distress that treatment is warranted. In this chapter we first briefly review the definitions and developmental aspects of fear, anxiety, and worry. Next, we discuss the classification, prevalence, and nature of the most common anxiety disorders experienced by children. Finally, we present what is known about the assessment and treatment of these disorders.

DEFINITION AND CLASSIFICATION

Although fear, anxiety, and worry have been studied for decades, there is no clear consensus on how to define or conceptualize them, and the three are often used interchangeably. The terms *fear, anxiety,* and *worry* are hypothetical constructs reflecting subjective events that must be inferred by behavioral signs, physiological responses, and self-reports.

Fear

Fear is defined as an emotion that functions to alarm or prepare the person to make a “fight-or-flight” response by activating the autonomic nervous system, which responds with physiological sensations such as sweating, trembling, muscle tension, gastrointestinal distress, rapid breathing, and pounding heart; attention is focused on either escaping the situation or fighting the potential threat (Barlow, Chorpita, & Turovsky, 1996). These responses fade with the disappearance of the perceived or real threat. The fear reaction is seen as adaptive, and with experience, a person learns to distinguish between a real threat and what is an innocuous situation or stimulus. Cognitive development affects an individual’s perception and understanding of what is perceived as a threat. Children, for example, respond with an alarm reaction to different stimuli and situations as they develop (e.g., loud noises at 6 months, fear of strangers at 7–8 months, large approaching objects at 2 years, the dark at 3 years, ghosts at 6 years, and minor injuries at 6–12 years).

Anxiety

In contrast to the immediate alarm reaction of fear, *anxiety* is an emotion or mood state characterized by negative affect, including tension and uneasiness; feelings of apprehension; and worry that some future negative event, situation, or misfortune will occur (Barlow, 2002; Meltzer, Vostanis, et al., 2008). The physiological symptoms that occur with anxiety include fidgeting, increased heart rate, and muscle tension. Anxiety is thought to assist in planning or managing future events (e.g., motivating a child to study for an exam or enhancing performance in various situations). Some people appear to be predisposed to experience anxiety in response to a wide range of stimuli, whereas others have less frequent and more transitory moments of anxiety that fluctuate in duration and intensity. Spielberger (1972) described these two different conditions as trait anxiety and state anxiety. *Trait anxiety* is defined as relatively stable chronic anxiety that a person may experience regardless of specific circumstances; thus, the person may perceive a wide range of stimulus situations as dangerous or threatening. *State anxiety* refers to varying or fluctuating aspects of anxiety that may change relative to a given situation. The two constructs are not independent: A person with high trait anxiety will react more often with a state anxiety response that includes the aforementioned feelings of tension, apprehension, and activation of the autonomic nervous system.

Fear versus Anxiety

The distinction between fear and anxiety lies in the interpretation of threat as immediate versus sometime in the future, and in the nature of the physiological response as an alarm reaction versus an elevated level of tension and apprehension. Given that fear and anxiety are hypothetical constructs inferred from self-reports, physiological monitoring, and behavioral observations, and that they share many characteristics, it has long been debated whether they are two distinct constructs or manifestations of the larger, more diffuse construct of *negative affect* (Barlow, Allen, & Choate, 2004).

Both fear and anxiety, like other emotions, are thought to have three distinct but highly interrelated components: (1) cognitive or subjective reactions that involve all the thoughts, images, beliefs, and attributions about the situation and its expected outcomes, which are expressed as distress, discomfort, or terror; (2) motoric or behavioral reactions, such as avoidance, escape or tentative approach, crying, clenched jaw, urgent pleas for help, walking rituals, and immobility; and (3) physiological reactions, such as heart palpitations, profuse sweating, rapid breathing, muscle tension, uneasiness, sleep disturbance, and poor concentration (Barrios & Hartmann, 1997; Southam-Gerow & Chorpita, 2007). Implicit in this three-component view of anxiety and fear are potential variations in the individual expression of the subjective, physiological, and motoric responses. Two children who are suffering from school refusal, for example, may react very differently. One child may begin to exhibit somatic complaints and crying the night before school, whereas the other child's response may be to enter school reluctantly but refuse to participate in any activities. In addition, given the varying task demands of different situations, an anxious child's response can vary across settings. An anxious child may respond to a social situation, for example, by refusing to interact with anyone and having thoughts of going crazy. In contrast, he or she may blank out when called on in school, exhibiting trembling, stuttering, and tearing of eyes.

Worry

The construct of *worry* complicates our understanding of fear and anxiety. This is of some importance given that worry is a central component of several DSM-5 (American Psychiatric Association [APA], 2013) anxiety disorders found in children. In contrast to anxiety, which is thought to be a complex emotional response involving cognitive, physiological, and motoric components, worry is viewed as a cognitive component of anxiety (Barlow, 2002). It involves thoughts or images that are related to possible negative or threatening outcomes. These thoughts or images are difficult to control and can be quite intrusive. Just as fear is viewed as a special state of the biological alarm system, worry is seen as a special state of the cognitive alarm system that prepares the individual to anticipate possible future dangers. Worry involves rehearsing possible aversive events and at the same time searching for ways to avoid them. This problem-solving function is seen as adaptive in preparing for and coping with future events, but if it is excessive, it can actually interfere with the problem-solving process (Szabó & Lovibond, 2006). There is growing empirical support for the hypothesis that in children, worry and anxiety are significantly related but independent constructs, and that worry contributes to fear above and beyond the influence of anxiety (Weems, Silverman, & La Greca, 2000).

DEVELOPMENT OF FEARS AND WORRIES

Fears and worries are common phenomena for children and adolescents, with 10 or more expressed at any given time in their development (Gullone, 2000; Ollendick, 1983). Although they have been measured by a number of different methods (e.g., adult retrospective reports, child interviews, fear survey schedules), patterns of fears and worries clearly change over the course of development, reflecting a maturation of cognitive processes. A summary of common fears and worries exhibited at different ages is shown in Table 7.1.

TABLE 7.1. Sources of Fears and Worries at Different Age Levels

Age	Sources of fear or worry
0–6 months	Loud noises Loss of support Excessive sensory stimuli
6–9 months	Strangers Novel stimuli (masks) Heights Sudden or unexpected stimuli (e.g., noise, bright light)
1 year	Separation from caretakers Strangers Toilets
2 years	Auditory stimuli (e.g., trains and thunder) Imaginary creatures Darkness Separation from caretakers
3 years	Visual stimuli (e.g., masks) Animals Darkness Being alone Separation from caretakers

4 years	Auditory stimuli (e.g., fire engines, sirens, noises)
	Darkness
	Animals
	Parents leaving at night
	Imaginary creatures
	Burglars
5 years	Visual stimuli
	Concrete stimuli (e.g., injury, falling, dogs)
	"Bad" people
	Separation from caretakers
	Imaginary creatures
	Animals
	Personal harm or harm to others
6 years	Auditory stimuli (e.g., angry voices, thunder)
	Imaginary creatures
	Burglars
	Sleeping alone
	Personal harm or harm to others
	Natural disasters (e.g., fire, floods)
	Animals
	Dying or death of others
7–8 years	Being kidnapped
	Imaginary creatures
	Staying alone
	Personal harm or harm to others
	Media exposure to extraordinary events (e.g., bombings, kidnappings)
	Failure and criticism
	Medical and dental procedures
	Dying or death of others
	Frightening dreams or movies
	Animals
9–12 years	Failure and criticism (e.g., school evaluation)
	Rejection
	Peer bullying or teasing
	Kidnapping
	Dying or death of others
	Personal harm or harm to others
	Illness
13–18 years	Social alienation
	Failure
	Embarrassment or humiliation
	Being raped
	Having to fight in war
	Injury or serious illness
	Natural and human-made disasters (e.g., economic and political concerns)
	Death and danger

Note. Data from Burnham (2005), Gullone (2000), and Muris et al. (2000a).

Development of Fears

Research on fears in the general population of children has led to a detailed understanding of normal fear experiences, including the ways in which they change with maturation and demographic differences in their content (Gullone, 2000). The major types of fears have been fairly consistently clustered into five categories: failure and criticism, the unknown, minor injury and small animals, danger and death, and psychic/stress/medical fears (Muris, Ollendick, Roelofs, & Austin, 2014). In a review of the past century of research, Gullone (2000) summarized the developmental progression of fears and their demographic characteristics. By the end of the first year, the increase in fears of strange persons, strange objects, and heights reflects a cognitive maturation in both the capacity to remember and the ability to distinguish the familiar from the unfamiliar. By the early preschool years, fears are quite concrete in nature and reflect present experiences, such as fear of animals, the dark, or being alone. An increase in fears that are more abstract, imaginary, and anticipatory in nature, such as fears of evaluative or social situations, bodily injury, illness, and school, are seen in the elementary school years (Melzer, Vostanis, et al., 2008). Adolescent fears reflect the increased maturation of cognitive processes, with more global fears (including economic and political concerns) predominating. It is interesting that fears of death and danger (e.g., getting lost in a strange place, burglars, being hit by a car, fire, earthquakes) are consistently among the most commonly reported from early childhood through late adolescence (Gullone, 2000). In one study in which children ages 11–18 years were asked to list their three greatest fears, however, the item listed most frequently was spiders (Lane & Gullone, 1999)!

Sex differences in fears have been reported; girls report a greater number of fears than boys in all of the major fear categories. The items that most strongly discriminate boys from girls include rats, spiders, snakes, mice, creepy houses, being alone, and having bad dreams, which suggests that differences between boys and girls may be influenced by gender role stereotyping (Gullone, 2000). Girls, especially those who are older, also consistently report a greater fear intensity than boys (Caes, Fisher, Clinch, Tobias, & Ecclestron, 2015). When age differences in the frequency and intensity of fears are found, they mostly indicate a decrease with age; younger children (ages 7–10 years) have more fears than older children (ages 11–14 years) or adolescents (ages 15–18 years) (Burnham, 2005).

Socioeconomic status (SES) also affects the number and content of fears reported by children. Children from low-SES environments tend to have more fears than children from middle- or high-SES settings. Moreover, the content of fears of children from low-SES environments suggests a basis in immediacy and reality for these fears. Children from low-SES environments, for example, perceive their environments as more hostile and dangerous, and report fears of animals, strange people, being abandoned by parents, death, violence, and police officers (Gullone, 2000; Meltzer, Vostanis, et al., 2008). In contrast, heights and ill health are more characteristic fears of children from middle- and upper-SES environments.

Culture also has been found to affect the number, content, pattern, and intensity level of fears. In a study of children ages 7–11 years from four cultures, Ollendick, Yang, King, Dong, and Akande (1996) reported that children and adolescents from Nigeria and China (countries that tend to stress greater self-control, emotional restraint, and compliance with social rules) reported higher levels of social-evaluative and safety fears than youth from America or Australia. Not surprisingly, exposure to specific fear-producing stimuli in the environment also affected the content of the fears evidenced by youth in different countries. A large percentage of American and Australian youth, for example, reported fears of burglars breaking into their homes or of getting lost in strange places, whereas an equally high percentage of Nigerian and Chinese youth expressed fears of electricity and potentially dangerous animals (e.g., bears in China and snakes in Nigeria). Other fears were specific to each country (e.g., looking foolish in America, guns in Australia, ghosts in China, and deep water or the ocean in Africa). Interestingly, rates of fears remained high across all ages and all fear levels among Nigerian children. In contrast, American and Australian youth expressed decreasing numbers of fears with age. Among Chinese youth, the greatest number of fears occurred between ages 11 and 13 years (the period when decisions are made regarding higher education).

Development of Worries

There have been only a few studies on worry in the general population of children, but this work is quite informative about the nature, frequency, and intensity of worry, as well as its relationship with anxiety. Worrisome thoughts become prominent after age 7 years, and the content of the worries shows a developmental progression (Muris et al., 2000a; Vasey, Crnic, & Carter, 1994). Just as children express many fears, they also report a considerable number of worries; 70% of primary school children report 10 or more things about which they worry (Orton, 1982). Threats to their well-being constitute a predominant worry across age (Muris et al., 2000a), although the specific content of the worries is closely linked to level of development. Preschoolers worry about imaginary and supernatural threats. This worry decreases for 5- to 6-year-olds, who worry more about threats to their physical well-being. In children over 8 years of age, worries about behavioral competence, social evaluation, and psychological well-being take the forefront (Vasey & Daleiden, 1994). Carr and Szabó (2015) note that younger children more strongly associate worry with fear, but children's worries become increasingly complex after the age of 8, due to their increased ability to reason about future possibilities, to consider multiple threatening outcomes, and to elaborate potential negative consequences. The increased opportunity to experience aversive situations also plays a role in the worries expressed by children as they develop.

In an entire elementary school sample from second through sixth grades, Silverman, La Greca, and Wasserstein (1995) found that the three most common types of worries in children ages 7–12 involved school, health, and personal harm. Although worry about physical harm or attack by others was the most frequent worry reported by children at all ages and one of the most intense, the children rated these events as low in occurrence. Thus, just as anxious children tend to worry about events that rarely or never occur (APA, 2013), non-clinic-referred children also worry about low-frequency events even though they recognize that they are not likely to occur. Other frequent worries reported were social in nature. These included worries about being rejected, excluded, or ignored by classmates; being betrayed by friends; and conflicts between parents or among family members. Silverman et al. (1995) also found that highly anxious children could be discriminated from less anxious children on various worry parameters (number, intensity, and ratings of event frequency). Other studies have supported these findings (Muris, Merckelbach, Meesters, & van den Brand, 2002; Weems et al., 2000). This is important, given the DSM-5's assumption that worry is integral to the clinical picture of anxiety.

Another study of children's worries (Muris, Meesters, Merckelbach, Sermon, & Zwakhalen, 1998) found that children ages 8–13 years reported worrying 2 to 3 days a week, and that worrying was accompanied by modest levels of anxiety and interference with functioning. Worries were also described as persistent and difficult to control. Strategies used to control the worries included using some activity to distract themselves (55.6%), thinking about more pleasant things (37.6%), and discussing the worry with someone else (8.3%). Only about 30% of the children could relate their worries to a specific threatening or aversive event. A strong positive relationship was found between trait anxiety and the frequency of worry.

Source of Fears, Worries, and Scary Dreams

Like fears and worries, scary dreams are common in children and are thought to be another expression of anxiety. A study by Muris et al. (2000a) examined the developmental pattern of scary dreams, fears, and worries in children ages 4–12 years, and the extent to which conditioning, modeling, and negative information contribute to the etiology of these behaviors. Scary dreams followed a pattern of development similar to fears: They were common in the 4- to 6-years-olds and the 11- to 12-year-olds but were most prominent at ages 7–9 years. By contrast, worries increased systematically with age. Although the prevalence of some specific types of fears, worries, and dreams changed across age groups (e.g., the frequency of fears and scary dreams about imaginary creatures decreased with age, whereas worry about test performance increased with age), the most intense fears, worries, and scary dreams remained relatively stable across age levels. Scary dreams focused on imaginary creatures, personal harm or harm to others, and being kidnapped (dreams about animals vs. kidnapping were more prominent in the 4- to 6-year-olds). Information from a range of sources (e.g., books, the mass media, people) was found to be the most commonly reported pathway for scary dreams, with almost 70% of the children reporting that they had scary dreams about something they had seen on television. Negative information (55%) was also found to be involved in the etiology of the children's main fears, with conditioning experiences reported for 33% and modeling for 25% of the children (Muris et al., 2000a). Another study found a high degree of heritability of nightmares for monozygotic twins compared to dizygotic twins with 51% of phenotypic variance accounted for by genetics (Coolidge, Segal, Coolidge, Spinath, & Gottschling, 2010). In addition, similar to Muris et al. (2000a), nonshared environmental influences contributed 49% to the development of nightmares. However, only 4% of the genetic variance in nightmares was shared with generalized anxiety, suggesting that anxiety and nightmares share separate genetic factors (Coolidge et al., 2010).

In summary, fears, worries, and anxiety are quite common among children of all ages. They tend to vary in their expression as a function of age; in number, as a function of age and gender; and in foci as a function of age, gender, ethnic, and cultural differences, and SES. Distressing fears and anxiety can also have a significant impact on children's personal and social functioning.

ANXIETY DISORDERS

Our understanding of anxiety disorders has evolved over the past 15–20 years, due in part to the increased specificity of the DSM classification system. DSM-5 (APA, 2013) indicates that the symptoms associated with anxiety are consistent across children, adolescents, and adults, although the specific manifestations of these disorders may reflect developmental differences. All of the anxiety disorders are now within the same section of DSM (child disorders are not in a separate section): separation anxiety disorder (SAD), selective mutism (SM), specific phobia, social anxiety disorder (SOC; an acronym used to differentiate it from SAD), panic disorder, agoraphobia, and generalized anxiety disorder (GAD), are listed in order of typical age of onset, and can all be diagnosed regardless of age. Obsessive–compulsive disorder (OCD; see Chapter 6), and trauma- and stress-related disorders (see Chapter 15), including posttraumatic stress disorder (PTSD), are now in separate sections listed after the anxiety disorders to reflect similar internalizing symptoms but qualitative differences between these disorders and anxiety.

Lifetime prevalence of any anxiety disorder in studies with children is about 15–20% (Beesdo-Baum & Knappe, 2012). SAD, specific phobia, and SOC are typically far more prevalent among children than the other anxiety disorders. In addition, the precise prevalence of GAD (which was previously known as overanxious disorder [OAD] for children and adolescents) has been difficult to estimate in children (range of 0.16 to 8.8%), but a recent study in a large specialty clinic indicated that GAD was the most common anxiety disorder diagnosis at 37% (Kertz & Woodruff-Borden, 2011; Leyfer, Gallo, Cooper-Vince, & Pincus, 2013). Research in this area may be confounded, because some studies combine the various types of anxiety disorders, whereas others examine the characteristics of only one specific type. Below, we describe the most common types of anxiety disorders seen in children, including SAD, SM, specific phobia, SOC, and GAD (see Table 7.2). General characteristics of anxiety disorders are presented in a later section.

TABLE 7.2. Symptoms Associated with DSM-5 Anxiety Disorders and Children

Symptoms	SAD	SM	PH	SOC	GAD
Worry					
• About work					X
• About school performance				X	X
• About relationships with others				X	X
• About someone close to them being harmed or dying and needing to know their whereabouts	X				
• About anticipation or being separated (kidnapping, death) from someone close to them	X				
• About being negatively evaluated, embarrassed		X		X	X
• About anticipation of social situation		X		X	X
Behavioral symptoms					
• Crying	X	X	X	X	
• Tantrums	X	X	X	X	
• Freezing		X	X	X	
• Clinging	X	X	X	X	
• Social inhibition	X	X		X	
Actual or perceived physical symptoms					
• Restlessness					X
• Being easily fatigued					X
• Difficulty concentrating					X
• Irritability					X
• Muscle tension					X
• Sleep disturbance—insomnia, too much sleep, or restless sleep					X
• Pounding of heart or accelerated heart rate			X		X
• Sweating for no obvious reason					X
• Trembling or shaking			X	X	X
• Physical symptoms (nausea, headache, stomachache)	X				X
Fears and/or phobias					
• Fear when separated or in anticipation of separation from some close to them	X				
• Fear of being home alone or in a room without adults present or going out alone	X				
• Fear of being in a social situation where there are unfamiliar people				X	
• Fear related to an object or situation (e.g., heights, animals, flying, blood)			X		
• Fear of losing control				X	
Other symptoms					
• Refusal to go to school or to participate in outside activities because of separation	X				
• Nightmares about being separated from others	X				
• Refusal to sleep away from home or insistence on sleeping near someone they are close to	X				
• Physical complaints (headache, stomachache, nausea) when separated or in anticipation of separation from significant person	X				
• Perfectionism				X	X
• Out of proportion fear related to and avoidance of object or situation			X		
• Consistent failure to speak in expected social situations		X		X	

Note. Data from DSM-5 (APA, 2013) and Laurent and Potter (1998). SAD, separation anxiety disorder; SM, selective mutism; PH, specific phobia; SOC, social anxiety disorder/social phobia; GAD, generalized anxiety disorder/overanxious disorder.

Separation Anxiety Disorder

All the features associated with SAD can be attributed to recurring and excessive anxiety about being separated, either permanently or temporarily, from one's home or one's attachment figures (i.e., parents or other primary caretakers). Crying or other excessive distress in anticipation of, or at the time of, separation is typical. Moreover, when away from the home or parents, the child often needs to know the parents' whereabouts and to stay in touch with them (e.g., by phone). When children with SAD are separated from parents, they are often preoccupied with morbid worries that something terrible will happen to their parents, or that something will happen to themselves to cause a separation, such as being kidnapped or lost. Homesickness to the point of misery and panic often occurs when away from home, and the yearning to return home interferes with participation in activities. The anxiety reaction seen in SAD is considered clinically significant when it is beyond that which is expected for a child's level of development, when it is severe enough to interfere with a child's functioning or well-being, and when it lasts for a period of at least 4 weeks (APA, 2013).

The expression of SAD can vary with age (Allen, Lavallee, Herren, Ruhe, & Schneider, 2010; Francis, Last, & Strauss, 1987). Young children with SAD have more symptoms than older children with this disorder. Children ages 5–8 years most commonly report unrealistic worry about harm to attachment figures and engage in school refusal. Among the youngest children, shadowing behavior (i.e., closely following a parent throughout the day or frequently checking on a parent's whereabouts) may be the major feature. These children may demand that someone stay with them until they fall asleep, or insist on sleeping with parents or siblings. Often, young children with SAD also have associated fears, such as nightmares involving separation. Prepubertal children (ages 9–12 years) evidence withdrawal, apathy, sadness, and poor concentration when separated from their parents. School refusal may be seen in complaints of illness or tantrums when it is time to depart for school, and children may leave school during the day to return home. Adolescents (ages 13–16 years) with SAD evidence more somatic complaints on days involving separation, and school refusal is common. They may also refuse to participate in activities that involve extended separation from parents, including going to camp, overnight stays with friends, or day excursions with peers. Overall, school refusal is exhibited by about 73% of children with SAD, particularly younger children (Allen et al., 2010; Francis et al., 1987).

Although SAD can be seen at any age up to young adulthood, it is most commonly diagnosed in prepubertal children (i.e., about 8 years of age) (Kashani & Orvaschel, 1990; Lewinsohn, Holm-Dnoma, Small, Seeley, & Joiner, 2008). The onset of SAD is often acute and precipitated by a stressful life event, such as a death, a move, or a change of school. It can also correspond to developmental transitions such as entering school for the first time, or beginning middle or junior high school (Albano, Chorpita, & Barlow, 1996; Rapee & Szollos, 2002). A child can have periods of exacerbation and remission of the symptoms over several years. Recurrence appears to be tied to events such as prolonged illness, school holidays, or periods of increased demands and stress.

Given that separation anxiety is a typical developmental period for children from about 9 to 18 months of age, it is possible that SAD represents a child's failure to make a successful transition from this developmental phase, or that it involves a regression to a prior level of functioning in the face of stressors (Fischer, Himle, & Thyer, 1999). A meta-analysis of contributions to SAD indicated that genetic factors predict about 43% of the chance of SAD and environmental factors predict 17%, which suggests that parents may also play a role in the development and maintenance of these symptoms from their own reactions to their child's anxiety (Scaini, Ogliari, Eley, Zavos, & Battaglia, 2012). In addition, there is evidence that SAD may be a strong risk factor for the subsequent development of psychopathology in adulthood, particularly panic disorder and depression (Lewinsohn et al., 2008).

Selective Mutism

SM is a rare disorder that is characterized by a child's consistent lack of speech in one or more settings in which speech is socially expected (e.g., with teachers, peers), despite a child's having no or little problem speaking fluently with family members (APA, 2013). Community samples estimate that prevalence rates are approximately 0.03 to 0.2% (e.g., Bergman, Piacentini, & McCraken, 2002; Elizar & Perednik, 2003) with comparable occurrence between sexes.

The etiology of SM is largely unknown, but Vianna, Beidel, and Rabian (2009), in an extensive review of the literature, suggest that SM is best characterized as an avoidant behavior rather than a unique anxiety disorder, that is the result of complex interactions between anxiety predispositions, familial patterns of inadequate reinforcement of social interactions, neurodevelopmental, and other contextual pressures (e.g., second language acquisition). There is evidence of a familial–genetic predisposition, with a higher percentage of parents of children with SM having suffered from SM or a social anxiety disorder (Black & Uhde, 1995), with some of the parents having a preference for limited social contact and a desire to be alone (Kristensen & Torgersen, 2001), and a greater prevalence of relatives with anxiety disorders compared to relatives of typically developing children (Black & Uhde, 1995; Kristensen & Torgersen, 2001).

There is strong comorbidity between SM and anxiety disorders, specifically, social anxiety. Using a relatively large sample comparing children with SM (44 children), mixed anxiety disorders (MA; 65 children) and a community control group (49 children), Carbone et al. (2010) did not find significant differences (as rated by primary caregiver, teacher, and child self-report) between the SM and MA groups on behaviors reflecting GAD, SAD, school avoidance and overall anxiety, although the primary caregivers rated the SM group significantly higher in behaviors reflecting social anxiety (SOC) than the MA and control groups. Furthermore, the SM and MA groups did not differ on internalizing behaviors, social assertion, self-control, nonverbal social skills, and total social skills. Taken together, these findings support other research (e.g., Black & Uhde, 1995) that children with SM have social deficits, as well as characteristics that are very similar to other anxiety disorders and, specifically, SOC. SM also has a high comorbidity with communication disorders (approximately 50%; Kristensen & Torgersen, 2001), but there is variability, with some children having problems with phonemic expression while others have problems with expressive and speech problems. While children with SM are reported to have mild oppositional defiant disorder (ODD), these negative behaviors are usually confined to situation in which they are pressured to speak (Cunningham, McHolm, & Boyle, 2006).

The onset of SM typically occurs before age 5 years, but children are not referred for clinical assessment until approximately 6½–9 years of age, when they enter school or experience academic problems due to their lack of verbal interaction (Carbone et al., 2010; Standart & LeCouteur, 2003). There is little research on the developmental course of SM, however it may persist for a few months to several years, and as adults they may suffer from social anxiety or difficulties in social situations. Remschmidt, Poller, Herpertz-Dahlmann, Henninghausen, and Gutenbrunner (2001) in a 12-year follow-up study of 45 children with SM, reported that 81% experienced gradual reduction of symptoms, 19% experienced abrupt relief of symptoms, and 19% experienced periods of relapse. The majority of children who showed improvement did so by age 10 years, but even with the absence of symptoms many continued to experience difficulty in social situations (Remschmidt et al., 2001).

Specific Phobia

Specific phobia is the most common anxiety disorder in children, with a prevalence rate of approximately 15% (Beesdo-Baum & Knappe, 2012). Most phobias begin before age 10; although learning experiences appear to play a role, onset is rare past adolescence (APA, 2013). The core feature of specific phobia is excessive fear in the presence of, or anticipation of, a circumscribed object or event. The fears expressed are persistent and maladaptive, lead to the avoidance of the feared object, and are perceived as uncontrollable by a child (Weems et al., 2000). The fear is out of proportion to reality, but children may not view their fear as excessive or unreasonable. For a child, a diagnosis of specific phobia requires that the phobia last for at least 6 months, be non-age-specific, and significantly interfere with the child's functioning. For some children, the fear may be age-appropriate but so excessive that it interferes with their functioning and therefore warrants treatment. Phobias can occur at an early age, are evident in both children and adolescents, and are not necessarily tied to traumatic precipitating events (Muris et al., 2000a).

Common phobias in childhood involve animals, storms, darkness, needles, and high places (Weems et al., 2000). The level of fear usually varies with the proximity of the feared object or situation and the degree to which escape is limited. The focus of the fear may be anticipated harm from some aspect of the specific object or situation (e.g., fear of dogs because of concerns about being bitten). Fears may also involve concerns about panicking or losing control when exposed to the feared object or situation (e.g., blood and injury may cause the person to worry about fainting) (APA, 2013).

Social Anxiety Disorder (Social Phobia)

Social anxiety disorder (SOC; also called social phobia in the *International Classification of Diseases*) is currently among the most common anxiety disorders, with rates up to 10%, and there is some evidence that it may be increasing (Beesdo-Baum & Knappe, 2012; Heimberg, Stein, Hiripi, & Kessler, 2000; Kashdan & Herbert, 2001). It is thought that the majority of children with SOC go undiagnosed, unless the disorder progresses to the point that the child refuses to attend school (Beidel & Morris, 1995). The age of onset for SOC is relatively early, with some children diagnosed as young as 8 years (Beesdo-Baum & Knappe, 2012). Moreover, most adults with SOC cannot recall a time when social anxiety was not present in their lives (Heimberg et al., 2000).

The key feature of SOC is a strong, irrational fear in social or performance situations in which a person is exposed to possible scrutiny by others and fears that he or she may do something that will be humiliating or embarrassing (e.g., not being able to talk while speaking in public, choking on food in public, vomiting in front of others). Children with SOC exhibit marked anticipatory anxiety when they must enter the social situation of concern, have high anxiety in the situation, and avoid the situation if at all possible. The clinician judges whether the fear appears excessive considering the threat of the social situation, as it can be difficult for children to make this distinction (APA, 2013). For a child to be diagnosed with SOC, the symptoms must persist for at least 6 months; there must be evidence that the child has the capacity for social relationships with familiar people; and the social anxiety must occur in peer settings, not just in interactions with adults. There is also a possible specifier if the social anxiety is only related to speaking or performing in public (APA, 2013). There has been much debate about how to classify test anxiety; it may be seen as an example of social anxiety if the child fears the negative evaluation of others, although it may be more closely related to GAD if the worry is about nonsocial consequences of the grade, or specific phobia if it is restricted to only this situation, without the social component (Bogels et al., 2010).

Children with SOC often fear and avoid more situations than do children without the disorder. For example, Bernstein, Bernat, Davis, and Layne (2008) found that children with SOC had more intense fear, 76% feared three or more situations, and 80% also avoided the feared social situations compared to children without SOC. The most commonly feared situations were (1) speaking with unfamiliar people (64%), (2) answering questions in class (49%), (3) speaking to adults (47%), (4) presenting oral reports or reading aloud (44%), (5) participating in musical or athletic performances (44%), and (6) starting or joining a conversation (40%). In addition, even though 96% of the children with SOC had a best friend, overall they had fewer friends, had trouble making and keeping friends, and preferred spending time alone than with peers. Children with SOC also evidenced greater difficulties at school, including learning problems and decreased social and leadership skills. This is consistent with other studies that have also indicated greater impairment in school for SOC than for those with other anxiety disorders (Mychailyszyn, Mendez, & Kendall, 2010).

Children with SOC are also at high risk for developing other disorders (even as high as 84%!), typically SAD, GAD, or specific phobia (Bernstein et al., 2008; Leyfer et al., 2013). SOC and SAD seem to co-occur in both clinical and community groups, particularly for children ages 8–12 years, with adolescents reporting more SOC than SAD symptoms (Compton, Nelson, & March, 2000). Given that SM is highly related to SOC, it may be viewed as a way for children to avoid an aversive social situation, particularly for younger children (Bogels et al., 2010). Comorbidity with other anxiety disorders is related to increased functional impairment (Mychailyszyn et al., 2010).

SOC is thought to result from a combination of biological and psychological vulnerabilities and life stresses or traumatic events (Bogels et al., 2010; Kashdan & Herbert, 2001). Specifically, concordance rates of 24.4% for monozygotic versus 15.3% for dizygotic twins have been reported (Kendler, Neale, Kessler, Heath, & Eaves, 1992). Moreover, the temperamental style of *behavioral inhibition* (shyness, social inhibition, and avoidance) in infancy and early childhood may be a precursor to SOC (Schwartz, Snidman, & Kagan, 1999; Stemberger, Turner, Beidel, & Calhoun, 1995). However, since shyness and major depression in parents are both strongly related to shyness and social anxiety in children, there is more support for transmission of a broad diathesis of mood and anxiety issues, rather than specific social anxiety traits (Bogels et al., 2010). Environmental events that may contribute to the development of SOC include high levels of parental criticism and control, peer rejection and victimization, and operant conditioning following a bad experience in a social situation (Hofmann, Ehlers, & Roth, 1995; La Greca & Lopez, 1998; Whaley, Pinto, & Sigman, 1999). A cycle of negative thoughts, feelings, and behaviors, particularly skills and/or performance deficits, are implicated in the maintenance of SOC (Hopko, McNeil, Zvolensky, & Eifert, 2001; Kashdan & Herbert, 2001).

Generalized Anxiety Disorder

Although current diagnostic criteria for GAD differ only slightly from those for DSM-III-R (APA, 1987) OAD, research has been mixed about possible differences between the disorders and potential outcomes (Andrews et al., 2010; Kendall & Warman, 1996), so it appears that although we can use past research on OAD to further our understanding of GAD in children, more ongoing research needs to be done. The core feature of GAD is excessive, unrealistic worry and anxiety about a number of areas of life. Furthermore, the worry and anxiety are not limited to a feature of one of the other anxiety disorders, such as being embarrassed in public (SOC) or being away from home or close relatives (SAD). The excessive worry/anxiety must be difficult to control and must be present for more days than not for at least 6 months. For a DSM-5 (APA, 2013) diagnosis of GAD, there must also be evidence of at least one of the following physiological symptoms: restlessness, tires easily, problems concentrating or mind going blank, irritability, muscle tension, or sleep disturbance. Although other somatic complaints (e.g., headaches, stomachaches, sweating) are not required for a diagnosis, they are quite common in children with GAD. Within a clinical sample of children ages 7–18 years diagnosed with GAD, the most commonly reported symptoms by 75% of the participants were feelings of tension, apprehensive expectations, negative self-image, need for reassurance, irritability, and physical complaints, with no age differences reported (Masi et al., 2004). The various symptoms must cause significant distress or impairment in important areas of functioning (Alfano, 2012). The onset of GAD may be sudden or gradual, and often symptoms are exacerbated by stress.

Children with GAD usually worry excessively about the quality of their work or about their performance in social, academic, or athletic events, even when their performance is not being evaluated. They are often perfectionistic and redo a task numerous times before believing it is acceptable. There may also be an excessive need for reassurance, as exhibited in not being able to complete a project or homework without continuous feedback that they are doing a good job. Children with GAD also often have a preoccupation with an adult figure who seems “mean” or critical to them (Albano, Causey, & Carter, 2001). Worries about the past, the future, and catastrophic events such as earthquakes or nuclear war are common. In addition, children with GAD may be excessively self-conscious, so they tend to avoid age-appropriate activities such as social or sport events. It is interesting to note that it is the intensity of worries that distinguish typical worry from that of children diagnosed GAD (not number or content of worries), and the intensity and frequency of worries differentiate children with GAD from those with simple phobias (Weems et al., 2000). This suggests the importance of the intensity of the worry leading to greater impairment in children with GAD (Alfano, 2012).

Children with GAD are often overlooked, because their anxieties about meeting deadlines and adhering to rules, as well as their inquiries about the dangers of situations, can give them the appearance of being “mature.” Thus, parents and teachers do not always recognize when these behaviors are excessive for a young child (Mian, 2014). In addition to these desirable behaviors, children with GAD do not often present with disruptive behaviors. It is therefore not uncommon for parents to wait for treatment until the behaviors are causing extreme distress or are significantly interfering with the child’s social or academic functioning.

Although GAD has been shown to be a distinct disorder, separate from other psychiatric disorders (Alfano, 2012), it is also frequently comorbid with other disorders, particularly other anxiety disorders and depression (Leyfer et al., 2013; Masi et al., 2004). Leyfer et al. found that within the referrals of children ages 4–18 to their specialty clinic, GAD was the most common diagnosis (37%), and it was one of the most frequently co-occurring anxiety diagnoses for all principal anxiety disorders (15.6%). Almost 75% of children with GAD had a comorbid diagnosis; the top comorbid diagnoses were social anxiety (33.1%), specific phobia (16.9), SAD (15.4%), and depression (12.3%). Research on the developmental course of GAD has produced mixed results. Studies consistently show that children with low or high anxiety tend to show stable symptoms, but there is less understanding about children whose symptoms may increase or decrease over time, and factors related to these changes (Broeren, Muris, Diamantopoulou, & Baker, 2013). However, it is clear that children with GAD and comorbid difficulties will show more problematic outcomes (Alfano, 2012; Mychailyszyn et al., 2010). Thus, although GAD appears to remit for many children, a sizable number of children continue to suffer from it and/or other psychiatric disorders, particularly anxiety and depressive disorders.

School Refusal

Although it is not listed in DSM-5, one of the most common symptoms exhibited by anxious and fearful children is refusal to go to school (King & Bernstein, 2001). Terms such as *truancy* and *school phobia* were previously used to describe this behavior, but neither of these fully captures the range of behaviors leading to or maintaining refusal to go to school. *School refusal,* which is now the term most commonly used to describe these children, is viewed as constituting a spectrum that includes rarely missing school but attending under duress, as well as always missing school. Specifically, school refusal refers to the behavior of youth ages 5–17 years who (1) are completely absent from school; (2) initially attend, then leave school during the school day; (3) go to school, following behavior problems such as tantrums in the morning; and/or (4) display unusual distress during school days that leads to regular pleas for future nonattendance (Kearney, 2007).

School refusal is of some significance because school attendance is mandated by law (King & Bernstein, 2001), and refusal to attend school affects the child and his or her family in a variety of ways, including family conflict and disruption, academic problems, reduced social interaction, delinquency, anxiety/depression, and the economic consequences of dropping out of school (Egger, Costello, & Angold, 2003; King, Ollendick, & Tonge, 1995). Although children at any age may exhibit school refusal, the problem peaks at times of transitions to new schools (Kearney & Albano, 2007). Prevalence rates for school refusal are estimated at 5% of all clinic referrals, 1–5% of school-age children, and it is equally common among boys and girls (King & Bernstein, 2001; Suveg, Aschenbrand, & Kendall, 2005). Anxiety disorders are most common among children with school refusal, including SAD (22.5%), SOC (12.7%) and GAD

(12.6%), with disruptive disorders such as ODD much lower (5.4%) (Kearney, 2007).

To help in the classification, assessment, and treatment of school refusal, Kearney and Silverman (1996) proposed a functional-analytic model to explain the behavior. The problem is hypothesized to occur for one or more of the following four reasons: (1) avoidance of situations or activities arousing negative affect (e.g., anxiety, fear, depression); (2) escape from aversive social and evaluative situations (e.g., oral reports, tests, social anxiety due to peer evaluation); (3) attention seeking (e.g., secondary gains of separation anxiety); and (4) possible tangible reinforcement (e.g., hanging out with friends, working, sleeping late). Children refusing for the first or second reason are motivated by a negative reinforcement paradigm, whereas refusal for the third or fourth reason is maintained by a positive reinforcement paradigm. It is possible for a child's school refusal to be maintained by two or more of these factors. This approach to understanding and classifying school refusal also leads directly to treatment methods that are specific to the individual child's problem (Kearney, 2007; Kearney & Albano, 2007).

GENERAL CHARACTERISTICS OF ANXIETY DISORDERS

Higa-McMillan, Francis, and Chorpita (2014) summarized findings from recent research on demographic characteristics of anxiety disorders in children:

1. The prevalence of anxiety disorders seems to increase with age, except for SAD, which decreases with age.
2. Girls show higher levels of self-reported anxiety than boys; however, some studies show that this difference may be due more to gender role orientation, with more feminine traits related to increased anxiety symptoms than to biological sex (Muris, Meesters, & Knoops, 2005).
3. Only a small proportion of variance in child anxiety is related to race, ethnic, and/or family SES. Often variables related to these factors, such as prenatal drug exposure, additional people in the household, and low social support, are more strongly related to anxiety symptoms (Leech, Larkby, Day, & Day, 2006).

Symptoms of anxiety appear to be persistent over time. In first-grade children, for example, those whose self-ratings placed them in the top one-third with respect to anxious symptoms were nearly twice as likely as their peers still to be placed in the top one-third when reassessed in the fifth grade (Ialongo, Edelsohn, Werthamer-Larsson, Crockett, & Kellam, 1995). In a 3- to 4-year prospective study of children from an anxiety disorders clinic, an anxiety disorder (persistent, recurrent, or new) was present at follow-up in 35–42% of children and adolescents (ages 5–19 years) who initially had such a disorder (Last, Perrin, Hersen, & Kazdin, 1996). Specifically, 19% continued to experience their previous primary anxiety disorder, 7.8% had a recurrence, and 15.5% had new anxiety disorders. Approximately two-thirds of the children who recovered did so within the first year of follow-up. This is consistent with other studies indicating that an episode of an anxiety disorder represents a risk for further episodes of the same anxiety disorder or the development of other anxiety or depressive disorders (Beesdo-Baum & Knappe, 2012). This persistence is remarkable given the changes in cognition, social and interpersonal roles, and extrafamilial contacts that take place during the transition from childhood to adolescence to young adulthood. Thus, the persistence of anxiety disorders is thought to be linked to something intrinsic to the individual, such as negative affect, which is an aspect of temperament and quite stable over time (Fox, 1994).

The impact of anxiety on children's functioning is considerable, including impaired peer relations, higher levels of depression, lower self-concepts, attention problems, and teacher-reported deficits in academic performance (Higa-McMillan et al., 2014; Mychailyszyn et al., 2010). It is also important to note that children with anxiety disorders are as disliked by their peers, as are children with conduct disorders, and they also tend to be socially neglected by their classmates (Ollendick & King, 1994; Strauss, Lahey, Frick, Frame, & Hund, 1988). These factors place them at increased risk for further interpersonal problems.

Comorbidity

The comorbidity of anxiety disorders with other psychiatric disorders is significant (Last, Hersen, Kazdin, Orvaschel, & Perrin, 1991; Leyfer et al., 2013). The co-occurrence of more than one anxiety disorder is especially high, between 65 and 95%. This is two to three times more likely than the association with depression (between 22 and 44%) or disruptive behavior disorders (between 8 and 27%). Reviews of the literature indicate that anxiety disorders typically have an onset prior to disruptive behavior disorders, which have an onset before depression (Kovacs & Devlin, 1998). This may explain, in part, the high comorbidity rate of anxiety with other childhood disorders.

Depression

The importance of comorbidity, particularly depression, in the outcome of children with anxiety disorders is highlighted by Last, Hansen, and Franco (1997) in an 8-year prospective study; follow-up data were collected on adults with a history of diagnosed childhood anxiety disorders. They found that individuals who did not have comorbid depression in childhood functioned relatively similarly to normal controls once they reached adulthood, whereas those with previous comorbid depression continued to experience considerable adjustment difficulties. Children with comorbid anxiety and depression are often older during evaluation and have more severe anxiety symptoms than those with an anxiety disorder or a depressive disorder alone (Kovacs, Gatsonis, Paulauskas, & Richards, 1989). Furthermore, the anxiety disorder precedes the depressive disorder about two-thirds of the time (Essau, 2003). It is not clear, however, whether anxiety actually causes depression or whether the psychosocial sequelae of the anxiety disorder place a child at risk for depression (Seligman & Ollendick, 1998).

There is considerable overlap in the symptoms of anxiety and depression, and much effort has gone into differentiating the two types of disorders (see Chapter 8). The tripartite model (Clark & Watson, 1991) proposed that anxiety and depression share a common component, high negative affect (i.e., symptoms of general distress), but are also differentiated by two distinct factors. High physiological arousal is specific to anxiety, and low positive affect (*anhedonia*) is specific to depression (Murphy, Marelich, & Hoffman, 2000). Although research has supported this model in adults and children, there are questions about the ability of the model to explain the heterogeneity seen in anxiety disorders (Anderson & Hope, 2008; Cummings, Caporino, & Kendall, 2014; De Bolle & De Fruyt, 2010). However, the model may help to explain the low incidence of mood disorders in preschool children, since the ability to modulate emotional arousal is acquired gradually throughout childhood, and it is why anxiety disorders often precede mood disorders. In fact, the model has been better supported in older children, which suggests that the differentiation between anxiety and depression increases with age (De Bolle & De Fruyt, 2010).

Attention-Deficit/Hyperactivity Disorder

Attention-deficit/hyperactivity disorder (ADHD) is also frequently comorbid with anxiety disorders. It is estimated that 11–22% of elementary school children and as many as 50% of adolescents with anxiety disorders have comorbid ADHD (Biederman, Newcorn, & Sprich, 1991; Larson, Russ, Kahn, & Halfon, 2011). The co-occurrence of anxiety and ADHD in children seems to significantly reduce the level of impulsiveness, compared to that in children with ADHD without anxiety, although the former remain more impulsive than typical children. The comorbidity of anxiety and mood disorders with ADHD is often associated with a history of greater family and personal stress, greater parental symptoms of mood and anxiety disturbance, and reduced responsiveness to stimulant medication (Jensen, Martin, & Cantwell, 1997; Steinberg & Drabick, 2015).

Etiology

The etiology of anxiety disorders in general is not clearly understood. A combination of genetic–familial factors and environmental events, learning factors, and cognitions appear to contribute to the development of anxiety; the relative influence of these factors varies for the individual child. The primary theories of etiology are summarized here.

Learning Theories

The learning-based theory that may best explain the etiology of phobias is that of Rachman (1977), who proposed three pathways for fear acquisition: (1) direct conditioning, (2) *vicarious learning*, or learning by watching others model particular reactions, and (3) transmission through information and instructions. Previously cited studies on the development of fears and worries are consistent with these pathways for children, particularly for conditioning through direct experiences and stressful life events. Vicarious exposure has also been shown to be a powerful learning tool for children. For example, studies have shown that young children show more fearful responses to novel situations after watching their mothers (Dubi, Rapee, Emerton, & Schniering, 2008) or peers (Broeren, Lester, Muris, & Field, 2011) respond anxiously, even when researchers control for child temperament. The transmission of fearful information through parents has also been supported. Muris, van Zwol, Huijding, and Mayer (2010) found that children's fear beliefs about a novel animal was influenced by how their parents presented the information about the animal. If parents presented information in a negative light (when requested to do so by the researchers), children were more fearful. However, they also found that if the instructions were ambiguous to parents about the animal, anxious parents told more negative stories about the animal than did other parents. This suggests that children's increased fear may be the result of not only parents modeling more anxious responding but also anxious parents providing negative statements about their own perceived threat of the situation.

Thus, learning experiences appear to play a significant role in the development of fears. However, learning theory alone cannot fully explain the etiology of the various anxiety disorders or show why certain people are more vulnerable than others to developing these disorders.

Cognitive Factors

Maladaptive cognitions are thought to play a significant role in the etiology and maintenance of fears and anxieties. Indeed, cognitive distortions characterized by misperceptions, exaggerations, or overattending to environmental threat are more prevalent in fearful and anxious children than in other youngsters (Kendall & Chansky, 1991; King et al., 1995). Kendall, Krain, and Treadwell (1999) explain the interrelationship between cognitions and behavior. They indicate that repetitions of behavioral events and the related cognitive processes result in some degree of consistency in these events and processes. With the accumulation of a history of behavioral events, a child begins to have anticipatory cognitions (*expectancies*). If children have early anxiety-provoking experiences, they may develop distorted cognitive schemas, involving negative or unrealistic expectations for future events. The emotional intensity related to a behavioral event can also influence the associated cognitions, with high emotional intensity exerting a greater influence. Given that cognitive processes develop over time, and that the development of fears has been shown to be related to cognitive maturation (Muris et al., 2002), this explanation has some heuristic value.

Several cognitive factors that may influence the thinking of fearful and anxious children have been studied (e.g., Chorpita, Albano, & Barlow, 1996), including *cognitive interpretative style* (i.e., how a situation is perceived), *causal attribution* (e.g., “This is overwhelming”), *attentional bias* (i.e., what aspect of the situation is focused on), and problem solving. In a study of cognitive interpretive style, for example, Barrett, Rapee, Dadds, and Ryan (1996) found that children with specific and social phobias perceived more threat in ambiguous situations than non-clinic-referred children, but less threat than children diagnosed with ODD. When asked to problem-solve what they would do in specific physical and social situations, children with specific phobia gave more avoidant solutions to physical situations than children with any other type of disorder, whereas children with social phobia tended to be more avoidant in social situations. Thus, cognitive distortions clearly play a significant role in fear and anxiety disorders and have implications for treatment, but it is not clear how cognitions vary with development and whether their role in phobias and other anxiety disorders is the result or the cause of the anxiety.

Genetic/Biological/Familial Factors

There is considerable evidence for a genetic component in the etiology of anxiety. First, the rate of anxiety disorders has been found to be higher in children whose parents have anxiety disorders (Last, Hersen, Kazdin, Orvaschel, & Perrin, 1991). Furthermore, behavioral genetic studies have found evidence for a genetic influence on anxiety in childhood, accounting for 30–40% of the variance in childhood anxiety (Eley et al., 2003; Gregory & Eley, 2007). The genetic contribution appears to increase with age, with girls evidencing greater heritability than boys. Lesch et al. (1996) found an association between a marker in the promoter of the serotonin transport gene and the emotional triad of anxiety, depression, and neuroticism, indicating that a specific genetic marker is associated with both anxiety and depression. Other work has found genetic contributions for particular anxiety disorders. For example, there appears to be a greater contribution of genetic factors in the etiology of specific phobia than for the more general social phobia (Kendler et al., 1992).

Work by Kagan, Reznick, and Snidman (1988) suggests that certain individuals have a biological trait that predisposes them to the development of pathological conditions, particularly when they are exposed to certain experiences and environmental stimuli (Biederman et al., 1993). *Behavioral inhibition* (BI) refers to the temperamental propensity to react with inhibition to both social and nonsocial novel situations. It is estimated that approximately 15% of children are born with this temperamental predisposition (e.g., Biederman et al., 1993; Degnan, Almas, & Fox, 2010). Children with high BI have higher rates of all types of anxiety disorders, especially phobias, than do uninhibited children (see Degnan et al., 2010, for a review). Furthermore, BI appears to be most closely associated with phobias that are social or social-evaluative in nature. Despite these associations, however, the presence of BI is neither necessary nor sufficient for developing an anxiety disorder, but it may serve to increase a child's vulnerability to anxiety, as well as to specific types of fears (Bohlin, Bengstgard, & Andersson, 2000). Additionally, a review of longitudinal studies found that BI is related to subsequent anxiety only when accompanied by problematic parenting, such as mothers who are controlling (intrusive or overprotective), insensitive, or fail to encourage social responsiveness (Murray, Creswell, & Cooper, 2009). However, in a meta-analysis, McLeod, Wood, and Weisz (2007) found that parenting style accounted for only 4% of the variance in child anxiety, but inconsistencies across studies suggest that further research will help elucidate the influence of this factor. Within the parenting factors, parental control was more strongly related to subsequent child anxiety than parental rejection. They found that children whose parents limited their autonomy showed more anxiety. In addition, within the factor of parental rejection, they found that parental withdrawal (e.g., lack of involvement or interest in the child), and aversiveness (e.g., hostility, criticism) was related to higher anxiety; both of these factors were more strongly related to children's anxiety than lack of warmth. Overall, evidence supports a transactional nature of factors in which biological factors set the stage for anxious traits, with attachment, parent–child interactions, and life experiences all playing a role in the development of anxiety. Table 7.3 summarizes risk factors associated with the development of anxiety disorders.

TABLE 7.3. **Risk Factors Associated with Anxiety Disorders in Children**

Child risk factors	
Developmental problems	High behavioral inhibition
Conduct problems	Insecure attachment
Poor social adaptation	Bereavement
Parent risk factors	
History of anxiety disorders	Parental rejection

Permissive parenting (younger children) Restrictive parenting (older children)	Anxious parenting
Environmental risk factors	
Family composition (single, divorced, reconstituted)	Dangerous neighborhood
Large family	Low socioeconomic status

ASSESSMENT OF FEARS AND ANXIETIES

Given the frequency of fears and anxieties in children, how does one distinguish a normal, developmental fear or anxiety from a clinically significant phobia or other anxiety disorder? Symptomatology of anxiety can range from mild distress (crying, tantrums, hand wringing, and stomachaches) to overwhelming, incapacitating fear or anxiety. Although DSM-5 (APA, 2013) provides criteria for each of the anxiety disorders experienced by children, it is also important to systematically evaluate the nature of the specific fear- or anxiety-based symptoms, including the intensity and frequency of the behavioral and physiological reactions, the content of the fear or anxiety, its persistence, its developmental timing, and the familial and environmental circumstances that could have precipitated and/or are maintaining it. Clinically significant anxiety disorders have some characteristics in these areas that make them distinguishable from more age-related, transient fears and anxieties (APA, 2013):

1. *Intensity*. The intensity of the child's reaction is out of proportion to the actual threat or demands of the situation. For example, a child who cries uncontrollably the entire time he or she is in school, or starts vomiting every morning before school, is showing more severe reactions.

2. *Frequency*. The fear reaction or anxious symptoms occur with increased frequency and cannot be explained or reasoned away. No amount of reassurance seems to help, and reassurance often actually makes the situation worse.

3. *Content*. The child's fear or worry is usually focused on a nonthreatening situation or stimulus that is not likely to cause harm. This might include things such as the toilet, dogs, or thunder, and worries about vomiting or being separated from his or her parents.

4. *Spontaneity*. The reaction appears spontaneously and is beyond the voluntary control of the child (e.g., a child becomes distraught at the news that a thunderstorm might occur that day).

5. *Avoidance*. The fear reaction leads to the avoidance of or escape from the feared stimuli. Examples include a child who refuses to leave the house if there is a chance of rain, one who shadows a parent all day so as not to be separated, or one who refuses to go to school.

6. *Stage of development*. The fear or worry is not specific to a child's age or stage of development. For example, an adolescent may refuse to spend the night away from home, or a school-age child may refuse to use public toilets.

7. *Nonadaptive and persistent nature*. The reaction of the child is not adaptive, and it is persistent; thus, the child does not learn more effective ways to deal with the situation or feared stimuli. For example, clinging to the parent does not allow the child to learn to gain control over his or her anxiety and adapt to the environment.

8. *Interference*. The degree to which the child's reaction interferes with the child's or family's functioning is an important consideration for making a DSM-5 diagnosis and determining the family's motivation for treatment. Clinical levels of anxiety or fear reactions can interfere with social relationships and activities, academic performance, and family functioning.

Children often present with more than one anxiety disorder, or with other disorders that may be secondary to the anxiety but have a major impact on treatment. If ADHD or ODD behavior is present, for example, these issues may interfere with the treatment of the anxiety disorder and may need to be the initial focus of treatment or be treated simultaneously with anxiety (Chase & Eyberg, 2008; Cunningham, Ollendick, & Peugh, 2013; Halldorsdottir et al., 2015). Sorting this out is part of the assessment process for all disorders, but it is particularly important for anxiety disorders, since anxiety is associated with many other childhood disorders (Manassis & Monga, 2001).

The assessment process outlined below follows the Comprehensive Assessment-to-Intervention System (CAIS) framework presented in Chapter 2, with a particular focus on issues relevant to anxiety problems.

Step 1: Initial Contact

Parents should be asked to complete a general questionnaire (e.g., our General Parent Questionnaire; see Appendix B) prior to the initial interview, plus a broadband behavior questionnaire such as the Behavior Assessment System for Children, Third Edition (BASC-3; Reynolds & Kamphaus, 2015) to screen for current behavioral–emotional problems and to give the clinician information on the extent to which the child's fears/anxieties are greater than those of other children the same age. Sometimes the BASC-3 has been recommended over the Child Behavior Checklist (CBCL; Achenbach, 2013; Achenbach & Rescorla, 2001a, 2001b) for anxiety disorders, since it has separate scales for Anxiety and Depression, while the CBCL has a combined Anxious/Depressed scale (but also Withdrawn, Social Problems, and Internalizing Problems scales). However, the CBCL has also been shown to successfully screen for anxiety disorders (Aschenbrand, Angelosante, & Kendall, 2005). The Parenting Stress Index, Fourth

Edition (PSI-4; Abidin, 2012) also provides information about the child's temperament, the parents' general level of stress, and their attachment to the child—all important areas for the assessment of anxiety.

Various rating scales give specific information about the presence and content of anxieties/fears (Connolly & Bernstein, 2007). Several of these scales also measure somatic symptoms and/or are helpful in monitoring the individual child's progress in treatment. Silverman and Ollendick (2005) analyzed anxiety rating scales for evidence-based assessment; refer to Appendix A for descriptions of the rating scales we have found most useful. For example, the Screen for Child Anxiety-Related Emotional Disorders (SCARED; Birmaher et al., 1997, 1999) is particularly helpful in sorting out the DSM categories of anxiety disorders. It has child self-report and parent-report forms and assesses five factors: Panic/Somatic, Generalized Anxiety, Separation Anxiety, Social Phobia, and School Phobia. The SCARED differentiates between children with and without anxiety disorders, as well as among the specific anxiety disorders. The Fear Survey Schedule for Children—Revised (FSSC-R; Muris et al., 2014; Ollendick, 1983) provides information on the number, severity, and types of fears that a child experiences, and gives a rating of the child's fears in relation to other children the same age. It has been shown to discriminate between types of phobias, especially when the factor scale scores are used, not just the total score.

Two other widely used scales are the Revised Children's Manifest Anxiety Scale, Second Edition (RCMAS-2; Reynolds & Richmond, 2008) and the Multidimensional Anxiety Scale for Children, Second Edition (MASC-2; March, 2013). The RCMAS-2 is the most studied anxiety measure, but it does not have good discriminative validity in distinguishing anxiety from depression; thus, it is best used as a symptom inventory and a global measure of distress (Silverman & Ollendick, 2005). In contrast to other measures, though, it contains a Lie scale that may help detect when a child may be trying to respond in a socially desirable way. The MASC-2 has also been shown to be a good screen for anxiety symptoms, as well as discriminating among children with different anxiety disorders.

Having parents keep a Daily Log (see Appendix B) of the child's behavior provides information on the child's daily activities, which can show whether fear or anxiety is interfering with the child's functioning. The Specific Events Causing Concern chart (see Appendix B) records the antecedents, behavior, and consequences of specific instances of observed fear and anxiety. This chart can be very helpful in both guiding the interview and measuring the effects of treatment. Depending on the age of the child, either the child or parents can be asked to complete the Mood Diary (see Chapter 8) to assess for mood fluctuations. The Daily Log and the Mood Diary should be kept for at least a week to assess baseline mood and activities.

Step 2: Initial Intake Interview

Parent Interview

Including a child in the initial interview with a parent, regardless of age, has the advantage of clarifying discrepant views of the problem; it also provides an opportunity for observation of the parent–child interaction. If the parent feels uncomfortable about a joint session due to the anxiety of the child, the clinician can discuss how to help make the child feel more comfortable and review types of topics that they can cover together and areas that may need to be covered separately with the parent. Information should be gathered in the following areas:

1. *Behavior*. The parent and child should be asked their perceptions of the problems, as well as to define the specific problem behavior. The focus should be on the specific manifestation of the fear or anxiety (avoidant behavior, agitated behavior, specific worries, etc.); the onset and development of the symptoms, including frequency, intensity, duration, persistence, and situation specificity; and the antecedents and consequences of the anxiety- or fear-related behavior. Social and familial reinforcers of the symptoms should be particularly noted. The clinician should also determine whether there are conditions under which the fear is not exhibited. A child may not show fear of the dark when he or she is with a sibling or parent, for example. The impact of the symptoms on the daily life of the child and family, as well as potential comorbid conditions, should be reviewed as well.

In order to interview for particular DSM disorders for anxiety, the Anxiety Disorders Interview Schedule for DSM-5, Child/Parent version (ADIS-5 C/P; Albano & Silverman, in press) is a semistructured interview and the most researched diagnostic interview for child anxiety disorders with good reliability (Silverman & Ollendick, 2005). It asks for symptoms, and allows for ratings of the level of fear and avoidance relative to situation and impairment, as well as questions about other possible disorders. The Schedule for Affective Disorders and Schizophrenia for School-Age Children (K-SADS; Kaufman et al., 2016) also can be used to interview for anxiety and other possible disorders, and shows adequate reliability. It is also important to assess events or meanings associated with the fear or anxiety responses and the child's coping strategies. Fear of going to bed, for example, may be associated with fear of ghosts, fear of a recurrent nightmare, or fear that the parents may leave the child. The fear may also be maintained by the child's coping strategies (e.g., avoidance, escape, immature or dependent behaviors). Questions regarding who is concerned about the behavior, whether the child wants help, and whether the parents' expectations for the child may be too high are especially important in the assessment of anxiety disorders.

2. *Child functioning*. The child's academic, athletic, social, and behavioral functioning

should be explored. Problems with family members (e.g., intense sibling conflict), peers, and academic work should be noted, as well as the child's coping strategies and support networks.

3. *Developmental and medical history.* The child's history of temperamental problems, stranger and separation responses, and early fears should be considered. A review of the child's general pattern of coping with sleep, toileting, eating, and child care can give further information about his or her response to everyday events. A medical history should include information about visits to the physician for anxiety symptoms, medications, and medical conditions.

4. *Family and environment.* Changes in the environment or the child's attachment figures (e.g., death of a grandparent) can precipitate problems with anxiety; recent changes in the family situation or changes at the time of symptom onset should be explored. Environmental stressors such as a disorganized home, neglect, and exposure to danger or violence (including apparently innocuous events, such as bullies on the school bus) can also precipitate anxiety symptoms. What are the parenting styles and the family coping styles? Permissive child-rearing practices are often associated with anxiety in younger children, whereas intrusive and restrictive practices tend to increase anxiety in older children. Have the parents been rejecting or overly anxious in their child-rearing practices? Furthermore, the use of punishment, force, or criticism is not as effective with children who are fearful or anxious. It is also important to gather information on the extent to which the family members have changed their routines to accommodate the problem or protect the child from exposure to the feared stimulus or anxiety-provoking stimuli, as well as the extent to which the problem interferes with the child's and/or family's activities.

5. *Efforts to help the child.* Finding out what has been done thus far to help the child and how the child has responded to these efforts gives information on the family's attitudes toward certain treatment strategies, as well as efforts that may have inadvertently strengthened the fear or anxiety (e.g., not allowing the child to watch any TV shows or movies with imaginary figures, or keeping the child home every time he or she has a stomachache).

6. *Family and community resources.* Parents are often ambivalent about having a child confront a feared stimulus, and most children do not want to do this. The clinician should try to determine who in the family is best suited to help the child through the treatment process, in addition to how well the family members will be able to carry out a particular procedure. Depending on the specific fear or anxiety, the clinician should also determine what support can be offered by neighbors, school personnel, or other community resources. This is particularly important for school refusal; specific information should be gathered about the parents' relationship with the school and what assessments and/or accommodations have been done at school.

7. *Family history*. What is the medical and psychiatric history of the parents and family members? Emphasis should be placed on anxiety disorders, mood disorders, tic disorders, suicidal behavior, substance use disorders, and ADHD. Is there a family history of medical conditions that may present as anxiety disorders?

Child Interview

Although parents may have a good understanding of how anxiety is affecting their children's functioning, children usually are more aware of their internal distress, especially if they do not show many outward symptoms (Allen et al., 2010; Choudhury, Pimentel, & Kendall, 2003). Therefore, an interview with the child is essential. Structured interviews are not always feasible in clinical practice; therefore, we use a semistructured interview, such as the ADIS-5 C/P (Albano & Silverman, in press). Although interviews are used primarily to assess the subjective/cognitive domain, they can also be used to assess other domains through general and specific questions (e.g., "How does your body feel when you think of going to school?" or "Does your heart race [or do you sweat] when you are asked to step into an elevator?" or "What do you do to avoid oral reports?"). The clinician should remember that children who are anxious tend to respond better to specific questions than to open-ended questions (Ollendick & Francis, 1988).

The child's general cognitive-developmental level, verbal skills, and compliance should be assessed. The child interview also gives the clinician an opportunity both to observe the child's emotional reactions and to get the child's subjective description of the fear or anxiety. It is important to ask the child about the nature of the distressing behavioral, physiological, and/or cognitive responses that result from the actual or anticipated exposure to the feared stimulus or situation. Determining the response (e.g., avoidance, increased heart rate, diffuse muscle tension, maladaptive thoughts and images) will have a direct impact on the treatment strategy selected. The use of one or more self-report measures may be helpful in determining this information in a structured and systematic manner (e.g., RCMAS-2, SCARED). The scale(s) chosen will depend on the specific symptoms of the child.

Another method for assessing children's experience of fear or anxiety is a "fear thermometer" (with 0 representing *no fear,* and the top of the thermometer, 10, representing *extreme fear* or *anxiety*). Fear thermometers are not very reliable, but asking the child to rate the intensity of his or her fears does allow the clinician to establish a fear hierarchy and enable the child to distinguish among different levels of fear. The child should be asked to rate cognitions or thoughts ("What you are thinking?"), behaviors ("What do you do?"), and physiological responses ("How does your body feel?") separately on the thermometer. A drawing of the thermometer is helpful for younger children. The clinician can also give young children a concrete way to describe fear or anxiety (e.g., “It feels a lot or just a little like bees or butterflies”), or can have them draw a picture of themselves and indicate how different parts of their body feel by giving colors to their feelings.

Step 3: Observation of Behavior

Reviews of direct observations and their utility for measuring childhood anxiety have shown that none of the current measures possess sufficient documented clinical utility, especially since the time taken to conduct them may not add incrementally to information obtained other ways through interviews and rating scales (Silverman & Ollendick, 2005; Vasey & Lonigan, 2000). Observation of the child’s behavior in analogue situations, however, can be very helpful. For example, a behavioral avoidance test has been used with specific phobias. In this procedure, the child is placed in a setting that contains the feared stimulus, then he or she performs a series of graduated tasks that call for approaching and interacting with the feared object (Barrios & Hartmann, 1997; Kendall, 1994). Behavioral avoidance tests have been used to assess children’s motor reactions to medical procedures, school-related events, animals, and strangers. Other analogue observations may involve setting up anxiety-provoking situations in the clinic and observing the child’s behavioral response. For example, with the parents’ consent, the child can be left alone in an exam room or waiting room while a parent and the clinician observe to determine whether the child’s behavior is similar to natural situations (Fischer et al., 1999). Parent–child interactions can also be observed systematically in clinic analogue situations. Although they have their shortcomings, analogue observations are straightforward and allow assessment of multiple motor responses, as well as subjective responses to situations.

Given the varying stimuli or circumstances that can provoke the specific fear or anxiety and the differences in the behavioral responses to these situations, it is generally best for the clinician to develop an observation sheet on which the child, parent, teacher, and/or outside observer can monitor the behavior of interest (e.g., the time that elapses between the parent bringing the child to school and departing, number of minutes to fall asleep, avoided or delayed behaviors).

Step 4: Further Assessment

Information can be obtained from school about a child’s behavior, performance, and peer interactions. The clinician can talk with teachers and have them complete a broad-based measure, such as the BASC-3 (Reynolds & Kamphaus, 2015) or Teacher Report Form (TRF; Achenbach, 2013; Achenbach & Rescorla, 2001a, 2001b) to compare the child’s school behaviors to that of others of the same gender and age. However, there is general agreement across clinicians that teachers may not pick up on internalizing symptoms in children, such as anxiety, as much as externalizing symptoms, since they are not as disruptive to the classroom (Loeber, Green, & Lahey, 1990). A psychoeducational assessment may be needed in a case of school-related fears when there is a question about the child's actual abilities and performance level. A measure such as the Vineland Adaptive Behavior Scales, Third Edition (Vineland-3; Sparrow, Cicchetti, & Saulnier, 2016) may also be useful if there is a question about the child's overall level of adaptive functioning. Assessment of social skills may be indicated, and the Social Skills Improvement System (SSIS) Rating Scales (Gresham & Elliot, 2008) can be completed by parent, teacher, and child.

Step 5: Collaboration with Other Health Care Professionals

The child should have had a physical examination within the last year, and the clinician should consult with the physician regarding the child's health and behaviors of concern. A number of physical conditions may produce anxiety symptoms, including (1) reactions to caffeine, psychostimulants, sedatives/hypnotics, inhalants, and neuroleptics; (2) central nervous system problems, including partial seizures, lesions of the limbic system and frontal lobes, and postconcussion syndrome; (3) metabolic and endocrine disorders, including hypoglycemia, hyperthyroidism, carcinoid tumor, and hypocalcemia; and (4) cardiac problems, such as mitral valve prolapse, arrhythmias, and valvular diseases causing palpitations.

Step 6: Communication of Findings and Treatment Recommendations

As with all childhood problems, it is important to share information with parents about the child's development and the way in which the particular behaviors/emotions fits into the developmental process. This can then lead to discussion of the clinician's hypothesis regarding how a particular fear or anxiety became established and/or what is maintaining it, and, if indicated, effective ways of treating the problem. The parents and child should be included in deciding the next steps for intervention; thus, the various treatment options should be presented, with a discussion of their advantages and disadvantages. If the parents feel strongly that the child should not be included, a discussion should follow about the best way to communicate the information to the child. The family members' trust in the clinician is very important in the treatment of fears and anxieties, and their cooperation and collaboration in the treatment process will depend on their understanding of the problem and the various treatment options.

TREATMENT OF ANXIETY DISORDERS

Despite the fact that anxiety disorders are among the most common disorders of childhood, significantly fewer children with these disorders seek treatment than do those with other disorders (Merikangas et al., 2011). Methods for the treatment of anxiety with the greatest empirical support across diverse clients are cognitive-behavioral interventions (Silverman, Pina & Viswesvaran, 2008; Higa-McMillan, Francis, Rith-Najarian, & Chorpita, 2015), and children who have participated in cognitive-behavioral therapy (CBT) have shown a better chance of recovering fully from anxiety and maintaining gains after a year compared with supportive child-centered therapy (CCT; Silk et al., 2016). In addition, behavioral techniques including systematic desensitization/relaxation, prolonged exposure, modeling, psychoeducation, and contingency management/praise; a combination of two or more of these treatments has also been shown to be effective (Chorpita & Daleiden, 2009). Current research is assessing common factors of CBT, to see which components may be more effective in facilitating change in children, as opposed to the full "treatment package." (Chorpita & Daleiden, 2009; Vande Voort, Svecova, Jacobsen, & Whiteside, 2010). Generally, the goal of treatment is to help the child learn to cope with the feared stimulus or anxiety-provoking situation, or to become less fearful in the presence of the stimulus or situation. Although all of the aforementioned treatments have been used with a wide range of fears and anxieties, certain procedures have been used predominantly for particular types of fears or anxieties. For example, systematic desensitization has been used most frequently for fears and anxieties related to small animals, nighttime, and test taking, whereas prolonged exposure has been used to treat fears/anxieties related to school, physical harm, or contamination. Modeling treatments have been used to help children deal with small animals and stressful medical or dental procedures. CBT combines a number of treatment procedures and has been used to treat a range of anxieties that focus on school, social situations, and separation issues. There is also evidence that group CBT treatment is as effective as individual treatment (Silverman et al., 2008).

The clinician should take several factors into consideration when selecting a treatment approach for the anxious or fearful child, including the nature of the fear/anxiety and its stimulus, the characteristics of the child and parent, cost-effectiveness, and ethical considerations. For example, a highly anxious child or parent is not likely to accept a prolonged exposure treatment method; however, if time is of the essence (e.g., the child must undergo surgery), this may be the method of choice. In some cases, the parents, not the child, may be the focus of treatment. Research has indicated, for example, that poor treatment outcome is associated with parental psychopathology (e.g., depression, hostility, and paranoia) and family dysfunction (Berman, Weems, Silverman, & Kurtines, 2000; Crawford & Manassis, 2001). The parents' pathology, however, may have less effect on adolescents' than on younger children's treatment, and also less effect when parents and children are treated in group rather than individual formats (Berman et al., 2000). In addition, children with a depressive disorder and high trait anxiety may show poorer treatment outcomes. In these cases, Berman et al. suggest that the anxiety and depressive symptoms be treated simultaneously.

Although the number of treatment sessions for the most common anxiety disorders ranges from 12 to 15 sessions and often targets a range of anxiety disorders and symptoms (Silverman et al., 2008), the child may need periodic booster sessions, particularly in periods of stress or transition. The treatment procedures presented here follow the CAIS framework (see Chapter 2), with interventions that focus primarily on the child, the parents, the environment, consequences of the behavior, and medical/health areas.

Intervention with the Child

Cognitive-Behavioral Approaches

The premise of CBT is that behavioral responses are mediated by cognitions (Kendall & Gosch, 1994). Therefore, maladaptive behavior is thought to be the result of maladaptive cognitions; if the maladaptive cognitions are changed, the maladaptive behavior should also change. Indeed, the literature suggests that worry is the symptom that most clearly identifies anxious children (Laurent & Potter, 1998), and that children with anxiety disorders engage in off-task thoughts, more negative self-evaluations, and fewer positive self-evaluations (Alfano, Beidel, & Turner, 2002). Thus, it is logical that therapy for children suffering from anxiety disorders should focus on cognitions related to anxiety. CBT combines the techniques of behavior therapy, with an emphasis on thought processes. CBT for anxiety disorders in children focuses on altering maladaptive perceptions, thoughts, images, and beliefs by manipulating and restructuring these distorted cognitions. Kendall (1994) developed a CBT program for anxious children, and its effectiveness has been empirically demonstrated (Silverman et al., 2008).

CBT as described by Kendall et al. (1992) consists of teaching the anxious child (1) to identify or be aware of feelings and physical symptoms that are due to anxiety; (2) to become familiar with and evaluate what he or she is thinking in an anxiety-provoking situation; (3) to develop problem-solving skills, such as making a coping plan and modifying anxious thoughts, to deal with these situations; and (4) to evaluate and reward him- or herself for nonanxious behavior in an anxiety-producing situation. The intervention program uses a combination of behavioral and cognitive techniques over the course of 16 sessions. The first eight sessions are aimed at developing the necessary skills for children to overcome the anxiety, and the last eight sessions allow children to practice the skills in anxiety-provoking situations. Kendall and his colleagues (Benjamin, Harrison, Settipani, Brodman, & Kendall, 2013; Kendall, Safford, Flannery-Schroeder, & Webb, 2004; Kendall & Southam-Gerow, 1996) demonstrated the effectiveness of this program with children who had a variety of anxiety disorders, with 64% of children no longer meeting criteria for an anxiety disorder in contrast to only 5% of those on a wait-list control condition; treatment gains were maintained over 1-, 3-, 7-, and 19-year follow-up periods. These techniques were also used effectively in 12 weekly group CBT sessions (Mendlowitz et al., 1999; Silverman et al., 1999) and in a family-based program (Shortt, Barrett, & Fox, 2001). Furthermore, adaptations of CBT (including social skills training, participant modeling, peer generalization experiences, and *in vivo* exposure) have been demonstrated to be effective in treating social phobia (SOC; Beidel, Turner, & Morris, 1999) and specific phobias (Davis, Ollendick, & Öst, 2009). In general, factors identified as contributing to less effective treatment are children's severe symptoms, negative self-statements, parental psychopathology, maternal overinvolvement and expressions of fear, and low parental warmth (Rey, Marin, & Silverman, 2011).

Prompting children to recognize signs of anxiety during treatment sessions and having them do homework outside the therapy sessions help them practice their newly learned skills. These features, plus the involvement of parents in treatment, increase the likelihood of generalization beyond treatment sessions. Indeed, most studies using CBT with anxious children have demonstrated that children's skills actually improved in the 12 months following treatment (Barrett, Dadds, & Rapee, 1996; Silverman et al., 1999). Long term follow-up of anxious children over 6- to 7-years posttreatment with CBT found that 85–95% no longer met criteria for any anxiety disorder (Barrett, Duffy, Dadds, & Rapee, 2001; Kendall et al., 2004).

CBT includes a combination of techniques and there are few drawbacks in its use, particularly given its effectiveness in groups for both children and parents. In addition, there are more computer-assisted courses for children that have shown initial effectiveness (Khanna & Kendall, 2010; Richardson, Stallard, & Velleman, 2010). However, a high rate of children have dropped out of computer-assisted treatment (33.3–69.6%), for reasons such as finding the experience too difficult and having technical difficulties. Overall, the self-management technique involved in CBT requires that the child have certain abilities regarding abstraction, intellect, and memory, and be able to learn data-collecting skills. A relatively high level of self-control is also needed to use the skills independently. In addition, since CBT is effective for about 60–70% of children who try it, some have proposed adding an emotional regulation component to increase the ability of children to manage their symptoms (Hannesdottir & Ollendick, 2007).

Systematic Desensitization

Wolpe (1958) developed *systematic desensitization,* which is based on the view that fears and phobias are classically conditioned responses that can be unlearned through specific counterconditioning procedures. The standard systematic desensitization treatment consists of the following sequence of activities: (1) selecting and training the child to engage in a response that is incompatible or antagonistic to the fear response (e.g., muscle relaxation); (2) having the child rank-order, from least to most distressing, a series of scenes depicting the feared stimulus (fear hierarchy); and (3) gradually having the child imagine the feared scenes while engaged in the incompatible response (e.g., being relaxed). The pairing of the relaxed state with images of the feared object begins with the least distressing scene and ends with the most distressing scene, with progression through the series contingent on imagining a scene without significant discomfort (King, Muris, & Ollendick, 2005). The incompatible response used most often is muscle relaxation, but laughter (e.g., having the child imagine the feared monster dressed in red flannel underwear!), playing with toys or games, eating a favorite food, or interacting with a special person may also be used with children. *Vicarious desensitization* (the child observes another child receiving desensitization), group desensitization, virtual reality exposure (the child faces the fear through a computer generated environment), and real-life or *in vivo* desensitization (desensitization carried out with the actual feared stimulus or situation) are all effective, though *in vivo* training is the most effective treatment (Bouchard, 2011; King et al., 2005).

In vivo training has the added benefit of incorporating actual practice or skills training with the graduated pairing of the incompatible response and the fear-producing stimuli. In setting up the real-life situation, however, the clinician must be sure to have control over the feared stimuli (e.g., a cooperative dentist, a friendly but slow dog). If real-life exposure is not feasible, imagery should proceed by having the child relax then imagine the least feared scene for 10–15 seconds. When no or low anxiety is evoked, the child can move up the hierarchy. Pictures or slides may be used to help with the imagery. Systematic desensitization is an active, cognitively mediated process of learning to cope with anxiety (Goldfried, 1971), so the clinician should encourage the child to apply relaxation or other learned coping skills to tolerate the feared image or real situation for longer periods of time.

Systematic desensitization is especially useful when phobic reactions involve a high level of physiological reactivity and extreme avoidance (e.g., fear of thunderstorms), or when there is more time to get used to the stimulus (e.g., fear of flying, and the family going on vacation in several months). It is not the treatment of choice for phobias that are due primarily to a lack of skills (e.g., a water phobia in a child who does not know how to swim), since it does not provide the child with detailed instructions on the proper way to interact with the feared stimulus (Barrios & Hartmann, 1997). Nor should it be used for fears that are being inadvertently reinforced by others without changing the reinforcement patterns.

In a variation of systematic desensitization developed by Lazarus and Abramowitz (1962), the term *emotive imagery* is used to describe "those classes of imagery which are assumed to arouse feelings of self-assertion, pride, affection, mirth and similar anxiety-inhibiting responses" (p. 191). The therapist evokes these images by incorporating the child's hero image (e.g., Batman, Cinderella, Dora, a rock star) into a fantasy or an exciting story that includes the child. Through emotive imagery, the therapist induces positive affect and gradually introduces items from the fear hierarchy into the narrative. Positive feelings created by the story serve to inhibit feelings of anxiety that may be elicited by the fear-related stimuli. Imagery scenes should be tailored to the child's age, should incorporate the child's existing fantasies and cognitions, and should include language the child has used to describe his or her fears. The therapist must also be alert to nonverbal cues (facial expression, muscle tension) that may indicate anxiety, so that the scene can be continued until there is no evidence of anxiety. This procedure involves developing an anxiety hierarchy, determining a hero and theme the child enjoys, and interweaving the feared stimuli into scripts in a graduated fashion. The script can also be incorporated into *in vivo* desensitization by having the story bring the child in actual confrontation of the feared stimuli (e.g., the child pretends to be Batman's sidekick, Robin, as they carry out a mission in a room that becomes increasingly darker). Although experimental evidence is not extensive at this time (Ollendick & King, 1998), this method has been used successfully with children as young as age 4, particularly to treat nighttime fears (Gordon, King, Gullone, Muris, & Ollendick, 2007; King, Cranstoun, & Josephs, 1989).

Systematic desensitization techniques are especially applicable to fears that are symbolic (e.g., fear of monsters or of nuclear war) or when the feared stimulus is readily available and approachable in stages (e.g., elevators, animals). Not all fears, however, lend themselves to being segmented into a hierarchy, and it may be difficult for some children (especially young children) to use imagery or relaxation techniques. High levels of motivation and cooperation are also necessary for this treatment method.

Other Types of Exposure

Graduated/graded/gradual exposure is similar to systematic desensitization in developing an exposure fear hierarchy, in which the feared situations are ranked by difficulty and the child is asked to begin with less difficult exposures, then progress to harder ones (Kendall et al., 2005). However, relaxation is not necessarily used to help the child manage the anxiety during the exposure. In fact, some research has shown that preparation before the exposure, including psychoeducation and relaxation strategies, may not be as significant to change as postevent processing of the exposure (Tiwari, Kendall, Hoff, Harrison, & Fizur, 2013). Others have shown that using nonexposure anxiety management techniques before exposure (e.g., relaxation, distraction) might actually lead to less improvements in functioning (Vande Voort et al., 2010). Postexposure processing includes (1) discussing the fear and negative expectations the child had about the situation, (2) examining and evaluating the child's ability to cope with the fearful situation, (3) discussing whether what the child feared actually happened, and (4) challenging the cognitive distortions the child had during the event. This cognitive processing, as well as postevent rewards and additional practice of exposure outside of session, has been shown to increase coping strategies and decrease anxiety (Tiwari et al., 2013). Exposure has been shown to be a key ingredient in treatment with children, and studies have shown that interventions in clinical settings can be shorter and exposures may be introduced earlier than what current treatment protocols prescribe (Chorpita & Daleiden, 2009; Kendall et al., 2005; Vande Voort et al., 2010). The exposure tasks assist in helping the child remain in contact with the feared situation until an acceptable level of comfort is met (*prolonged exposure*), which is often when the anxiety is reduced by at least 50% (Kendall et al., 2005). A gradual exposure procedure for children with SM involves fading in the number of people present when the child is speaking (Cohan, Chavira, & Stein, 2006).

In contrast to graded exposure, *flooding* challenges the child to confront the feared stimulus with an intense, extended experience of the actual fear stimulus or an imaginal representation of the feared stimulus (starting with the most difficult fears). In addition, *implosion* involves the child being repeatedly presented with an unrealistic and extreme scenario involving the feared stimulus until he or she is no longer fearful or anxious. Due to potential negative effects and possible ethical issues, implosion is rarely used with children. Flooding has been used with children who have separation anxiety focused on day care or school attendance, requiring the child to remain at day care or school for the usual period of time. A plan to accomplish this is worked out with the school; the child is then told the plan and informed that he or she is expected to stay in the school. The child's complaints and attempts to leave are validated but redirected to potential tasks. The clinician must determine, along with the parents and teacher, whether the child (or parents) can be expected to handle being separated without being overwhelmed.

In summary, exposure has been shown to be a key element in changing children's anxiety in fearful situations. The choice of different types of exposure can be made by examining the types of anxiety-provoking settings, child and parent characteristics, and the time line needed for change. In addition, exposure requires that the parents and child be able to tolerate high levels of fear and/or anxiety as the child is exposed to the feared stimulus or situation, to process the event afterwards, and to give rewards for successful management of anxiety.

Modeling

Modeling treatments for fears and anxieties are based on an observational learning paradigm and consist of having the frightened child observe another person (preferably a peer) interacting adaptively with the feared stimulus. Both live and filmed models are effective with anxious and fearful children; the combination of live modeling and assisted participation by the child (participant modeling) is the most effective technique (King et al., 2005). Modeling provides a number of important therapeutic features for the fearful child: (1) vicarious extinction of the feared response by observing a model engage in this response without negative consequences; (2) the acquisition of information about the feared stimulus and coping strategies to deal with it effectively; and (3) response facilitation, which results in engaging in the expected behavior.

One of the best features about modeling is that it provides an opportunity for the child to learn skills to deal effectively with a feared situation. However, if skills acquisition is to be a major goal of modeling, then a list of desired skills should be made, so that they can be systematically demonstrated, practiced, and reinforced (King, Hamilton, & Ollendick, 1988). A graduated exposure to the feared stimulus or situation can also be part of the modeling program. Participant modeling involves direct contact between a model and a child observer, with the model guiding the child through the steps involved in confronting the feared stimulus and offering immediate feedback and reinforcement. For example, the model may be initially reluctant to enter a swimming pool, but may then comply and say, “That wasn’t so bad after all.” Symbolic modeling, in the form of stories that describe models coping with feared stimuli, is also effective.

In a review of the literature on modeling procedures with children, Barrios and O’Dell (1998) noted that a number of variables are related to treatment outcome: the child’s age, self-control, and defensiveness; the similarity of the child to the model; and the anxiety of the parents toward the feared stimulus. Older children benefit more than younger ones from this treatment, as do children who have high levels of self-control and low defensiveness. In addition, the more closely the child resembles the model in terms of age, fear level, and previous experience with the feared stimulus, the greater the probability of a positive outcome. Finally, the less fearful a parent is of the stimulus the child fears, the more likely the child will benefit from modeling treatment. This technique is quite acceptable to most children and parents, and is applicable to a range of fears and anxieties, particularly fears of dental or medical procedures, as well as animals or water.

Intervention with the Parents

Parents can play an important role in the treatment of a child with an anxiety disorder, since they are usually in the best position to teach and reinforce more adaptive responses on the child’s part. Some parents can effect changes in the child’s behavior simply through gaining a better understanding of the child’s anxious or fearful behavior and learning effective ways to help the child learn to cope with the feared situation. Other parents may actually be contributing to the anxious behavior by modeling the behavior, reinforcing or punishing it, or having expectations for the child that are too high or too low. Thus, their behavior management techniques or parent–child interactions may need to be the focus of treatment. The parents' own psychopathology (e.g., depression, anxiety) may also interfere with the child's treatment.

The addition of planned, systematic involvement of parents in treatment is demonstrated in a particular study using CBT for children with anxiety. Barrett et al. (1996), described the addition of a family component to a 12-week CBT program for children. The family component emphasized methods for empowering parents and children by forming an "expert team" with them, whereby the parents were trained to reward courageous behavior (verbal praise, privileges, and tangible rewards) and to extinguish excessive anxiety in children (parents listened to initial complaints, then encouraged coping strategies, with no further response to complaints). Parents were also taught strategies to cope with their own emotions, gain awareness of their own anxiety responses in stressful situations, and model problem-solving responses to feared situations. At the end of treatment, 84% of the children in the CBT plus family intervention group no longer met criteria for an anxiety disorder, compared to 57% of the children in the CBT-only treatment. Both groups improved further at 6- and 12-month follow-ups, with CBT plus family intervention still superior to the CBT-alone condition (95.6 vs. 71.4%). In addition, younger children responded better to the family component than did older children.

Although Barrett et al. (1996) saw increased success with the addition of parents in treatment, other studies have not shown a significant difference in outcomes with substantial parent participation when compared with individual CBT (Silverman et al., 2008). These results do not make sense conceptually, since it is theorized that parents may learn new coping skills to use themselves and prompt in their child; in addition, parents may facilitate the transfer of skills outside of the office and help maintain skills once treatment is completed. The findings do suggest, though, that CBT can be effective for children even if their parents refuse or are unable to participate in treatment (Breinholst, Esbjorn, Reinholdt-Dunne, & Stallard, 2012). Breinholst et al. reviewed the literature related to parent involvement in the treatment of anxiety and suggested several reasons for mixed findings, reporting that studies (1) showed a range of anxiety disorders covered, ages of children, and how parents were involved in the treatment; (2) did not systematically target parent factors associated with child anxiety; (3) rarely described a theoretical model of how parent involvement relates to child change; (4) mostly used outcome measures that targeted child anxiety symptoms but not other changes in the child or parent as a result of treatment; (5) did not look at which types of children may benefit most from parent involvement; and (6) may have targeted too many things at once rather than particular behaviors. Supporting these recommendations, Creswell, Willetts, Murray, Singhal, and Cooper (2008) found in a small sample that treating maternal anxiety was not related to child anxiety outcomes, but the mother's overinvolvement and fear expression was associated with child outcomes, suggesting that focusing on parent behaviors related to child anxiety may improve outcomes. In addition, focusing parent involvement on the child's exposure by meeting with parents and the child conjointly and focusing on exposure tasks in and outside of the session may also more significantly decrease children's anxiety (Taboas, McKay, Whiteside, & Storch, 2015).

Intervention in the Environment

The environment plays an important part in both the development and the maintenance of fears. When children's fears or anxieties become extreme, parents are often inclined toward *family accommodation*, or having the child completely avoid the feared situation or stimulus (e.g., to forbid all scary movies or not allow the child to participate in certain activities). These actions have the potential to reinforce the fear or anxiety, and also decrease the child's opportunities to learn how to deal more effectively with the situation (Taboas et al., 2015). Parents should be advised to set appropriate limits on television, movies, and video games, and to find ways to help the child cope with upsetting information. For example, the parent can sit with the child and comment on certain TV shows, or describe his or her own fears or anxieties and the methods used to cope with them.

Changing the Consequences of the Behavior

Contingency management procedures are based on operant conditioning principles and attempt to alter anxious and fearful behavior by changing the external events that follow the children's anxious/fearful reactions. Contingency management is based on the premise that the acquisition of an approach response to the feared stimulus or fear-producing situation is sufficient, and that anxiety reduction per se is not necessary (Ollendick & King, 1998). Shaping, positive reinforcement, response cost, and extinction are the most frequently used contingency management procedures to reduce phobic behavior. Essentially, this approach involves reinforcing graduated and repeated practice in approaching the actual feared stimulus. These procedures have gained empirical support, particularly in addressing phobias. For example, in a study involving 48 children (ages 3–8 years) with water phobias, Menzies and Clarke (1993) demonstrated the effectiveness of reinforced practice alone in comparison to (1) live modeling, (2) live modeling plus reinforced practice, or (3) a control group. It is interesting that the addition of modeling did not add to the effectiveness of reinforced practice.

The systematic use of reinforcement involves specifying a target behavior, determining a naturally occurring reinforcer, and making reinforcement contingent on the occurrence of the targeted behavior. It is important that the behavior be readily observable, and that both the child and parent understand how and when the behavior is to be reinforced. It is also important to fade the reinforcement gradually as the target behavior becomes more robust. The use of a chart and token reinforcement system that specifies the desired behavior and the rewards is often the best way to ensure that the reinforcement is given in a systematic manner. For a child who is fearful of the dark, for example, a chart can specify going to bed within a certain number of minutes after being told to do so, not complaining about bedtime, and staying in his or her own bed all night. Points are given for successfully engaging in these behaviors and are traded for desired rewards. The child's behavior may also be shaped by rewarding successive approximations to the final desired behavior. Reinforcing the child for staying in the feared situation or near the feared stimulus helps the child learn that there is nothing to fear, teaches more adaptive behavior (i.e., the targeted behavior), and reinforces coping strategies.

Positive reinforcement is an integral part of almost every treatment program for fears and anxieties, but its effectiveness when used alone should not be ignored, especially when the fear or anxiety is circumscribed. Teaching parents to use contingency management can make a substantial difference in the effectiveness of other treatment approaches (Barrett et al., 1996; Silverman et al., 1999).

Intervention in Medical/Health Aspects

The American Academy of Child and Adolescent Psychiatry (AACAP; Connolly & Bernstein, 2007) recommends that medication be considered for children with anxiety when symptoms are moderate to severe, when symptoms make it difficult to participate in psychotherapy, or when psychotherapy has not produced a decrease in symptoms. Selective serotonin reuptake inhibitors (SSRIs) are the most validated medication, and sertraline (Zoloft) is one of the most frequently used SSRIs in pediatric populations for the short-term treatment (up to 13 weeks) of anxiety disorders (Liu, Kubilis, Xu, Bussing, & Winterstein, 2014; Vitiello & Waslick, 2010). Taking SSRIs may have mild and short-term side effects, including stomachaches, headaches, hyperactivity, and difficulties sleeping. It is also important to screen for suicidal behavior when children are taking SSRIs; the risk is estimated to be about 1% in children with anxiety disorders (Vitiello & Waslick, 2010). Children should also be screened for bipolar disorder, considering negative reactions that SSRIs have on symptoms of this disorder. More severe symptoms and family history of anxiety disorders are predictive of poorer response to SSRIs. A multisite study, the Child/Adolescent Anxiety Multimodal Study

(CAMS), compared psychotherapy and medication, and found that CBT-only and the SSRI sertraline-only groups individually showed better outcomes than placebo, but were most effective when combined (Walkup et al., 2008). Other medications such as noradrenergic antidepressants, buspirone, and benzodiazepines have been suggested for use alone or in combination with SSRIs, but their safety and efficiency have not been established (Connolly & Bernstein, 2007).

Since children with anxiety often have comorbid disorders, particularly depression and ADHD, it is recommended that symptoms of depression and ADHD be treated first, then see whether anxiety symptoms remain (Liu et al., 2014; Vitiello & Waslick, 2010). For example, a study of comorbid ADHD and anxiety disorders showed that CBT alone was not as successful as treatment of ADHD symptoms with medications (Halldorsdottir et al., 2015). There are no evidence-based guidelines for length of medication treatment, but treatment may continue for 6 months after full remission of symptoms, and tapering of medication should be done slowly (Vitiello &Waslick, 2010).

Treatment of School Refusal

Given that school refusal is associated with a number of anxiety disorders and comorbid problems, Kearney and Silverman (1999; Kearney & Albano, 2007; see Table 7.4) give a blueprint for the treatment of this behavior across a range of childhood disorders. School refusal can be precipitated by many different factors, such as change of school, death of a parent, illness, hospitalizations, or an accident, as well as academic failure, a mean teacher, bullying by other children, or fear of ridicule or failure. It can be maintained by negative reinforcement of a child's anxious or avoidant behavior and/or by positive reinforcement for staying out of school (Kearney & Silverman, 1999). Early treatment of school refusal focused little on what maintained the behavior; the treatments of choice were immediate return to school and reinforcement for staying in school (e.g., Kennedy, 1965).

TABLE 7.4. A Functional Model for Prescriptive Treatment of School Refusal

Reason for school refusal	Prescriptive treatment
To avoid stimuli that provoke negative affect (crying, stomachache, distress)	Somatic control exercises and gradual reexposure to the school setting to reduce physical symptoms and anticipatory anxiety
To escape aversive social and evaluative situations	Role play and cognitive therapy to build social skills and reduce social anxiety
To get attention	Parent training in contingency management to establish clear parental commands, regular evening and morning routines, and consequences for compliance and noncompliance

For positive tangible reinforcement	Family contingency contracting to increase rewards for attending school and decrease rewards for missing school

Note. Data from Kearney and Albano (2007) and Kearney and Silverman (1990).

Although a quick return to school continues to be a top priority in treating this problem, Kearney and Silverman (1999) have demonstrated that treatment based on a functional analysis of the individual child's behavior can be the most effective way to choose a treatment for the problem. Using their functional model of school refusal behavior, Kearney and colleagues have designed prescriptive treatments based on the functional condition of school refusal shown in Table 7.4 (Kearney & Albano, 2007; Kearney & Silverman, 1990). Kearney and Silverman (1999) demonstrated the validity of this approach with children who had acute school refusal. Four children were assigned to prescriptive treatments based on a functional analysis, and four were assigned to nonprescriptive treatment. Treatment with the nonprescriptive methods actually led to increased time out of school and increased ratings of depression and anxiety. In contrast, the prescriptive treatments substantially decreased these problems. The value of this work cannot be overemphasized given that it gives the clinician a way to determine the most effective treatment approach for a particular child with a particular problem.

CBT has also been shown to be effective in treating school refusal, particularly when anxiety is the precipitating factor for the school refusal (Beidas, Crawley, Mychailyszyn, Comer, & Kendall, 2010; King, Tonge, Heyne, & Ollendick, 2000; King et al., 1998). The general success of CBT that includes graduated *in vivo* exposure to the school setting and methods to teach children specific coping skills makes this a seemingly worthwhile treatment for school refusal. Additionally, Beidas et al. (2010) found that teaching children general anxiety reduction skills helped lessen their anxiety and school refusal, even when school refusal was not the exclusive target of the intervention, suggesting that targeting the cause of the refusal may assist in helping the children return to school. However, they also recommended that reintroduction to school begin as early as possible in the treatment and that rewards be given to children for completion of successful exposure tasks. In addition, a number of children with school refusal showed a high dropout rate (41%), which suggests that without identifying the factors precipitating the school refusal, the treatment is more likely to fail.

CASE EXAMPLE: SCHOOL REFUSAL

Step 1: Initial Contact

Kenny, age 7, was referred by his pediatrician after his complaints of leg paralysis, stomach pains, and headaches were found to have no organic basis. These psychosomatic complaints had begun 2 weeks prior to the initial contact, and Kenny's parents, Mr. and Mrs. Shy, were having great difficulty getting him to go to school, although the doctor had reassured him that he was fine. Kenny and his mother were seen the day after the initial contact; therefore, questionnaires were not completed prior to the first interview.

Step 2: Initial Intake Interview

Parent Interview

Kenny and his mother were seen together for the initial interview. Mrs. Shy presented as a warm, nurturing person who appeared very worried about her son and said that she still wondered whether his pains had a physical basis. She stated that she was a full-time wife and mother, and that her husband was a university professor. Kenny was the youngest of three children, with a brother age 10 and a sister age 13. Mrs. Shy indicated that neither of her other children had exhibited any unusual fears or anxieties, but that she herself was always hesitant to join new groups and preferred being with her family and close friends. She stated that all of the children (including Kenny) did well in school, were involved in afterschool activities, and had satisfactory relationships with friends. Kenny, however, tended to enjoy a small circle of friends and had always been reluctant to play with unknown children. Up until this time, Kenny had been healthy, was currently taking no medications, and had not taken any medication for the past 7 weeks.

Shortly before the referral, the family had moved two blocks into a larger home. Everyone was pleased with the location, and Kenny had his own room for the first time, which he said he enjoyed. When asked whether any other events had recently occurred in the family, after some thought, the mother recalled that 3 weeks earlier, she had gone to the hospital for day surgery to remove a cyst. She felt that perhaps Kenny's problems had begun at that time and had progressively gotten worse. Currently, he became upset at bedtime, saying that he did not want to go to school in the morning. He was also having difficulty getting out of bed in the morning (he said he could not walk, his stomach had shooting pains, and his head hurt). After the physical examination, Mr. and Mrs. Shy had tried to insist that he go to school. Kenny's teacher had recommended that Mrs. Shy stay with Kenny for a half-hour in the morning and return to have lunch with him every day. This worked fairly well the first week, but during the second week, it seemed to make matters worse; Kenny clung to his mother when she tried to leave the class in the morning, and the teacher said that shortly before lunch, he became agitated and worried that his mother might not show up. In the last week, Mrs. Shy had stayed three afternoons in his classroom helping the teacher. Although the mother reported no other behavioral or emotional problems for Kenny, she and Mr. Shy were asked to complete the General Parent Questionnaire, the BASC-2, and the PSI-4. Mrs. Shy was also given a Daily Log and a Specific Events Causing Concern chart to keep track of Kenny's behavior for the following week. The BASC-2 scores were within the normal range on all scales except for the Anxiety scale, which was significantly elevated. The scores on the PSI-4 indicated that Kenny's parents saw him as an easygoing child who was very reinforcing to the parents but had significant attachment issues relative to his mother, suggesting difficulties in separation.

Child Interview

Kenny easily separated from his mother, who indicated she would wait in the waiting room, and readily engaged in activities with the clinician. He drew a picture of himself and was asked to show where he hurt. He chose a red crayon to illustrate a hot, burning pain in his leg when he awoke in the morning; a green crayon with red streaked through it to show his stomach pain; and a black crayon to show the pain in his head. He said he had these pains only in the morning and then, as an afterthought, Kenny said he also felt some of them when he went to bed at night. He was not sure when and how the pains went away, but he was not feeling them at the present time. He said he enjoyed his teacher, liked his classmates, and usually got all A's and B's in school. However, he said he had not been able to do much work in the last 2 weeks, because he felt so bad and only felt good when his mother was in school with him or when he was home. Kenny also completed the RCMAS-2, which indicated high anxiety scores. Kenny said that he wanted to go to school and he could not explain it, but he just felt awful when he left home. He had no trouble going to Boy Scouts or Little League.

Step 3: Observation of Behavior

Kenny was pleasant during the interview with his mother but chose to sit on the floor beside his mother and to play independently with toys. He exhibited no observable signs of anxiety, even when specific fear situations were discussed and questions about his behavior were directed to him.

Step 4: Further Assessment

The Roberts Apperception Test for Children (Roberts-2) was administered. Kenny's responses to this measure indicated a child with high anxiety and poor coping skills.

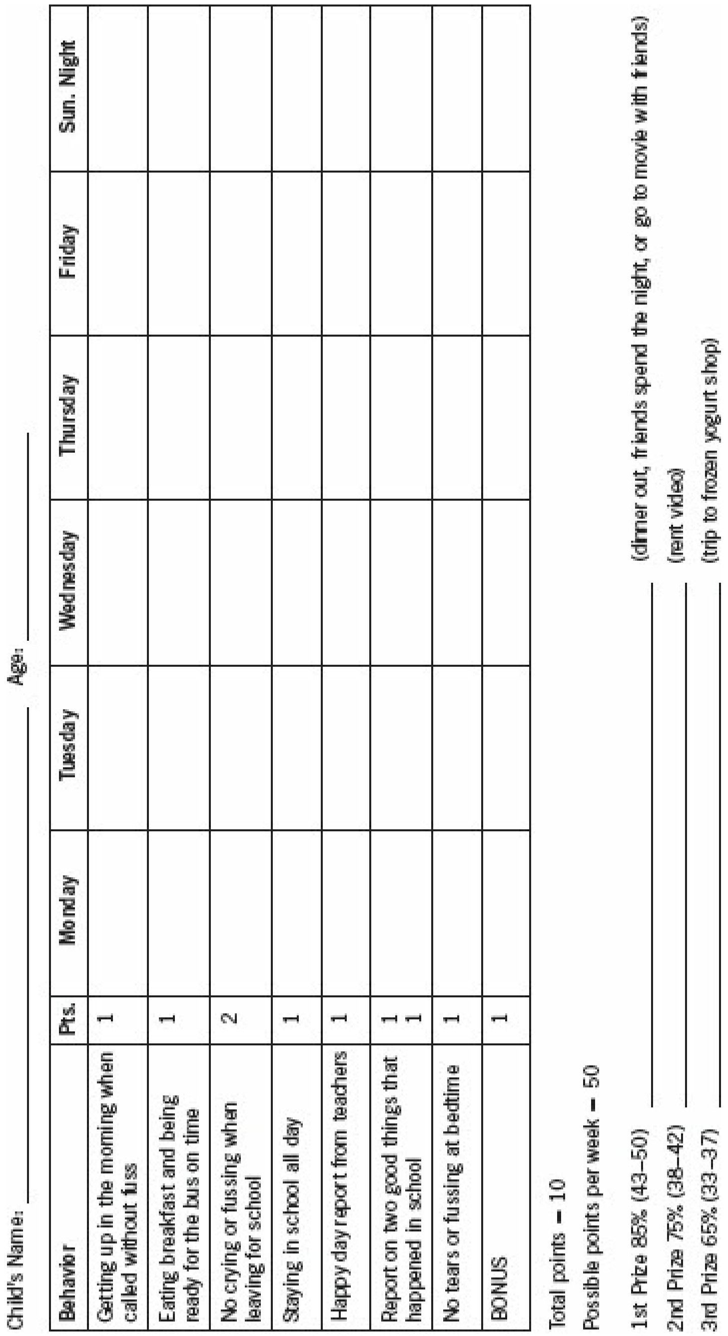
Step 5: Collaboration with Other Health Care Professionals

No referral to another health professional was needed, as Kenny had been seen by his pediatrician recently and no health issues were noted.

Step 6: Communication of Findings and Treatment Recommendations

Given the nature of Kenny's problem of school refusal, a treatment plan was developed during the initial interview. Mrs. Shy and Kenny were told that although more information was needed, it was important for everyone to help Kenny feel better as soon as possible. The clinician reviewed Kenny's many strengths and indicated that it was not unusual for some children his age to have worries or scary feelings about leaving home, especially after a move or when someone in the family had been in the hospital. The clinician communicated optimism about resolving the problem, with some effort on everyone's part. It was strongly recommended that everyone help Kenny to get back to school as soon as possible. Kenny and his mother agreed to a reward system that specified the steps to get back to school, and rewards for completing these steps (see Figure 7.1). Kenny thought it would be hard to get all the points, but he was willing to try, and Mrs. Shy was relieved to have a specific plan of action. Kenny was to go to school as usual on the school bus; his mother was not to accompany him or to have lunch with him; and he was to return home on the bus. Mrs. Shy agreed to ask the teacher, who had been quite supportive thus far, to keep Kenny in school. If he was too sick to remain in class, he was to be sent to the nurse's office until the end of the day. Points for engaging in the appropriate behavior were to be exchanged each week for having friends spend the night and family activities that Kenny thoroughly enjoyed (e.g., dinner out, a picnic in the park). All of the steps were carefully written down and agreed upon by both Kenny and his mother. Mrs. Shy was told to call the clinician if she had any difficulty in getting Kenny to school. She felt that her husband would help, and Kenny indicated that he "could make it." The clinician agreed to call Mrs. Shy the following evening to make any necessary changes in the program. After the initial interview, the clinician called Kenny's pediatrician to share her findings and recommendations.

Going Back to School Chart



Child's Name: ______________________ Age: ______________

Behavior	Pts.	Monday	Tuesday	Wednesday	Thursday	Friday	Sun. Night
Getting up in the morning when called without fuss	1						
Eating breakfast and being ready for the bus on time	1						
No crying or fussing when leaving for school	2						
Staying in school all day	1						
Happy day report from teachers	1						
Report on two good things that happened in school	1 1						
No tears or fussing at bedtime	1						
BONUS	1						

Total points – 10

Possible points per week – 50

1st Prize 85% (43–50) ______________ (dinner out, friends spend the night, or go to movie with friends)

2nd Prize 75% (38–42) ______________ (rent video)

3rd Prize 65% (33–37) ______________ (trip to frozen yogurt shop)

FIGURE 7.1. A record chart for a reward system in the treatment of school refusal.

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Course of Treatment

Kenny returned to school the next day and within a week was earning all of his points on the chart. He said that he was feeling a lot better. The Daily Log that Kenny's mother kept over the course of the week indicated only minor complaints about going to school, but anxiety when Kenny did not know where his mother was going to be or when she went out at night. It was clear from the assessment data and the Daily Log that Kenny would benefit from further treatment. Both parents were asked to come in for a feedback session. In this session, the parents were told that Kenny was a child with many strengths, particularly a warm and loving relationship with his family; however, he also appeared to be prone to react to various stimuli in an anxious manner and had some separation anxiety. Given the many stresses of childhood, it was recommended that he enter into some preventive treatment that would help him learn to cope with these stresses more effectively. Specifically, he would learn to identify a wide range of emotional responses and the situations in which these emotions occurred; to develop skills to cope effectively with his anxious or fearful responses, especially in response to separation from his family; and to become more self-sufficient. The parents agreed with this recommendation, and in subsequent sessions Kenny learned problem-solving skills (illustrated in Chapter 14, Table 14.2). Mrs. Shy also agreed to two sessions to discuss how she might best prepare Kenny for new situations, in order to prevent anxious behavior in the future. She was advised to inform him of events well ahead of time; to allow him to engage in increasingly mature and independent behavior; to encourage more activities apart from the family; and to present a rather casual "I know you can do it" response rather than a concerned or solicitous one.

Kenny responded well to this treatment approach, which was carried out over the next 4 weeks. Not unexpectedly, he returned to the clinic at age 10, when his grandfather died, and at age 12, when he was about to enter junior high school. On the first occasion, his mother requested the appointment because she could see that Kenny was having a difficult time with the death and was becoming increasingly clingy. On the second occasion, Kenny asked for the appointment on his own. Treatment at each of these times consisted of three to six sessions focused on his development of age-appropriate coping skills. Kenny indicated that stresses were getting easier for him to manage given that he was more aware of when he was beginning to feel anxious or fearful and was developing a number of techniques to deal with these situations (relaxation, self-instruction, modeling of peers).

RESOURCES FOR CLINICIANS

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

Kearney, C. A., & Albano, A. M. (2007). *When children refuse school: A cognitive behavioral therapy approach* (therapist's guide) (2nd ed.). San Antonio, TX: Psychological Corporation.

Kendall, P. C., & Hedtke, K. (2006a). *Cognitive-behavioral therapy for anxious children: Therapist manual* (3rd ed.). Ardmore, PA: Workbook.

Kendall, P. C., & Hedtke, K. (2006b). *The coping cat workbook* (2nd ed.). Ardmore, PA: Workbook.

RESOURCES FOR PARENTS

Eisen, A. R., & Engler, L. B. (2006). *Helping your child overcome separation anxiety or school refusal: A step-by-step guide for parents.* Oakland, CA: New Harbinger.

Huebner, D., & Matthews, B. (2005). *What to do when you worry too much: A kid's guide to overcoming anxiety.* Washington, DC: Magination Press.

Rapee, R. M., Wignail, A., Spence, S. H., & Lyneham, H. (2008). *Helping your anxious child: A step-by-step guide for parents* (2nd ed.). Oakland, CA: New Harbinger.

Sisemore, T. A. (2007). *I bet I won't fret: A workbook to help children with generalized anxiety disorder.* Oakland, CA: New Harbinger.

CHAPTER 8

Depression

After years of controversy about whether it is possible for preadolescent children to experience depression, professionals have finally agreed that young children can experience depressive symptoms. Moreover, children exhibit symptoms that are strikingly similar (although not identical) to those of adolescents and adults with depression, dispelling the myth that depression is "masked" in the juvenile population (Milling, 2001). Research in the area of childhood depression has increased dramatically in the last 30 years, but questions about its nature, causes, and treatment remain. Although relatively rare, childhood depression is a very complex disorder, as reflected in the extent to which its presentation is influenced by developmental factors, the degree to which it is associated with other disorders, and the negative and long-lasting impact it has on all areas of psychosocial functioning (Rao & Chen, 2009). As Kazdin and Marciano (1998) noted, "Depression, from our perspective, consists of a pervasive disorder that encompasses diverse characteristics and domains of functioning well beyond mood-related symptoms" (p. 212). Although the functioning of children who experience depression may be significantly impaired in many areas, a majority of these children do not come to the attention of mental health professionals (Wu et al., 1999). However, for those who receive mental health services, there is now more updated information on treatments that have been empirically validated for effectiveness, safety, and practicality (David-Ferdon & Kaslow, 2008).

One of the most difficult problems in the area of childhood depression is definitional. The term *depression* can describe a wide variety of manifestations. It is often used to denote either a single symptom (e.g., depressed mood or sad affect) or a cluster of symptoms (behaviors and emotions, including depressed mood) that reflect several clinically significant disorders described in the fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5; American Psychiatric Association [APA], 2013; Klein, Dougherty, & Olino, 2005). Consequently, how depression is defined influences our interpretation of the epidemiological research, as well as our understanding of the nature, etiology, and course of this disorder. Thus, we begin this chapter with a discussion of issues related to the definition and classification of childhood depression. We then review its comorbidity with other disorders, as well as its prevalence, developmental course, associated features, and etiology. Finally, we discuss issues related to assessment and treatment.

DEFINITION AND CLASSIFICATION

DSM-5 encompasses depression occurring in children, adolescence, and adulthood within the section on depressive disorders. Although the criteria for diagnosing adult depression are valid for use with children, irritability is more likely to be seen in depressed children than depressed mood, and suicidal behavior (ideation, attempts) is rare among children, although it increases dramatically in adolescence. Moreover, children are more likely to present with somatic complaints, separation anxiety, phobias, increased guilt, low self-esteem, and behavior problems than are adolescents or adults (Rao & Chen, 2009). Symptoms most common at different ages are summarized in Table 8.1.

TABLE 8.1. Developmental Phenomenology of Childhood Depressive Symptoms

Infants and toddlers (0–24 months)	Preschoolers (2–5 years)	Early elementary school age (6–8 years)	Middle school age (9–12 years)	Adolescence (13–18 years)
• Lethargy • Feeding and sleep disturbances • Irritability • Sad or expressionless faces • Decreased affective responsivity • Decreased attention • Decreased curiosity • Increased frowning and crying • Increased clinging	• Lethargy • Feeding and sleep disturbances • Irritability • Anger • Sad facial expression • Labile mood • Somatic complaints • Excessive crying • Hyper- or hypoactivity • Decreased socialization • Tantrums • Separation anxiety • Anhedonia (lack of interest in daily activities) • Aggression • Somatic complaints • Increased clinging	• Lethargy • Sleep problems • Irritability • Prolonged unhappiness • Poor school performance • Accident proneness • Phobias • Separation anxiety • Attention-seeking behaviors • Decreased socialization • Somatic complaints • Enuresis • Psychomotor agitation	• Lethargy • Irritability • Expressions of hopelessness and self-deprecation • Low self-esteem • Depressed mood • Sad expression • Aggression • Guilt • Poor school performance • Phobias • Separation anxiety • Suicidal ideation • Hallucinations • Self-destructive behaviors • Somatic complaints • Enuresis	• Somatic complaints • Social withdrawal • Hopelessness • Irritability • Expressions of pessimism, worthlessness, and apathy • Increased suicide attempts • Substance abuse • Eating disorders • Antisocial behavior • Restlessness • Temper tantrums • Running away • Anhedonia • Hypersomnia • Weight change (loss or gain)

Note. Data are from Schwartz, Gladstone, and Kaslow (1998) and Rao and Chen (2009).

Major Depressive Disorder

The depressive disorder that most often applies to children is major depressive disorder (MDD) or a subclinical form of MDD. According to DSM-5, a formal diagnosis of MDD requires one or more 2-week episodes during which the child evidences a change in functioning that includes depressed mood and/or irritability; loss of interest or pleasure in most activities; or both of these symptoms. In addition, the child must experience at least four of the following symptoms nearly every day and must evidence significant impairment in important areas of functioning: (1) significant loss of weight or failure to gain weight as expected; (2) sleep disturbance (insomnia or hypersomnia); (3) psychomotor retardation or agitation; (4) fatigue or decreased energy; (5) worthless feelings or inappropriate or excessive guilt; (6) lessened ability to think, concentrate, or make decisions; and (7) recurring thoughts about death, suicidal ideation, a suicide attempt, or a specific plan for committing suicide (APA, 2013).

Persistent Depressive Disorder

Persistent depressive disorder (PDD; dysthymia disorder in *International Classification of Diseases, Tenth Edition, Clinical Modification* [ICD-10-CM]) is characterized by at least 1 year of depressed mood or irritability (2 years in adults) that occurs most of the day and on most days. DSM-5 requires two or more of the following symptoms: (1) overeating or poor appetite; (2) sleep disturbance (insomnia or hypersomnia); (3) fatigue or decreased energy; (4) low self-esteem; (5) poor concentration or indecisiveness; and (6) feelings of hopelessness (APA, 2013). PDD is distinguished from MDD by being a less severe but more chronic depression, with children showing low mood for a longer period of time.

Bipolar Disorder

In addition to depression, bipolar disorder (BPD) in children has received a lot of attention in the past decade. BPD, listed in DSM-5 in a separate section than depressive disorders due to its use as a “bridge” between depression and schizophrenia through symptoms and family history (APA, 2013), may include depressive episodes but is characterized by one or more manic episodes of at least a week’s duration, in which the individual’s mood is elevated, expansive, or irritable, and he or she has increased energy. A manic episode also includes three or more of the following symptoms (four, if the mood is irritable): (1) grandiosity or excessive self-esteem; (2) lessened need for sleep; (3) unusual talkativeness; (4) racing thoughts; (5) distractibility; (6) psychomotor agitation or increase in goal-directed activity; and/or (7) excessive engagement in high-risk, pleasurable activities, including hypersexuality not associated with sexual abuse (APA, 2013; Geller et al., 2000). A diagnosis of BPD may be given after a single manic episode occurs, but manic episodes usually alternate with major depressive episodes, as described earlier, or with so-called “mixed” or “hypomanic” episodes (APA, 2013).

The diagnosis of BPD in children increased significantly beginning in the late 1990s and became a controversial disorder, with mental health professionals devising different criteria for the diagnosis in children (Moreno et al., 2007). Several reasons for this controversy have been suggested, including the following: (1) BPD is difficult to diagnose in children due to its low frequency; (2) there are developmental differences in the manifestation of BPD; and (3) symptoms of a manic episode are similar to those of attention-deficit/hyperactivity disorder (ADHD), oppositional defiant disorder (ODD), and conduct disorder (CD) (Youngstrom, Arnold, & Frazier, 2010; Youngstrom, Birmaher, & Findling, 2008). Youngstrom et al. reported variable rates across studies of symptoms seen as "core symptoms" of mania in children and adolescents, including elated mood, irritability, and grandiosity. In addition, hypersexuality, less need for sleep, and psychosis are more specific to BPD than to other childhood disorders. In contrast, difficulties concentrating, hyperactivity, and aggression do not separate BPD from other, more common childhood disorders. In order to distinguish BPD from other disorders, it is important to obtain comprehensive data from the family to determine whether the symptoms seem to "ebb and flow," with displays of mood symptoms, or whether there tends to be a more chronic or stable presentation of symptoms, which suggests other disorders (Youngstrom et al., 2008). In particular, increased energy that is episodic can distinguish bipolar from more chronic symptoms of ADHD or family history of mood disorders; however, BPD and ADHD are also often comorbid (Van Meter, Burke, Kowatch, Findling, & Youngstrom, 2016; Youngstrom et al., 2010).

Disruptive Mood Dysregulation Disorder

In order to help reduce false diagnoses of BPD, DSM-5 has added a new disorder, *disruptive mood dysregulation disorder* (DMDD; Margulies, Weintraub, Basile, Grover, & Carlson, 2012), which is defined as temper outbursts with either verbal or physical aggression, that is more serious than the situation suggests. These "explosive" temper outbursts are worse than expected for the child's development level and occur, on average, three or more times per week, are seen in at least two of three settings, and are severe in at least one setting (APA, 2013). A key feature of DMDD is irritability, and irritable behavior is evidenced consistently between the temper outbursts, with all of the symptoms seen for at least 1 year. In addition, the age of onset should be before age 10 years, and young children (under age 6 years) or older (over age 18 years) should not be diagnosed with DMDD for the first time. There has been controversy surrounding this disorder, since there were no published studies supporting the diagnosis before the proposal for DSM-5. It shares symptoms with several other internalizing and externalizing disorders (e.g., depression, anxiety, ODD), the construct does not appear to be stable, and it is not clear how it should be treated (Axelson et al., 2011). Supporting this conclusion, initial analyses have shown that DMDD is highly related to ODD and CD, inconsistently related to internalizing disorders, and is not related to parental psychiatric history (Axelson et al., 2012; Copeland, Angold, Costello, & Egger, 2013; Margulies et al., 2012). Also, in an inpatient sample, Margulies et al. found that even though DMDD may lessen diagnoses of BPD, it depends on whether parent report or clinician observation is used, with parent report more likely to result in a diagnosis of

DMDD. DMDD also showed high comorbidity with other disorders, particularly ADHD, ODD, and CD. More research is needed to see how DMDD may differ from other externalizing and internalizing disorders.

Other disorders seen in youth may involve depressive symptoms (e.g., adjustment disorder), but MDD and subthreshold depression are the forms of depression most commonly seen in children. In addition, if a child is experiencing bereavement, MDD should also be assessed, especially if the symptoms are persistent and accompanied by thoughts of worthlessness and suicidality (APA, 2013; see Chapter 14). The term *depression* is used in the remainder of this chapter to represent both MDD and subthreshold depression unless otherwise specified.

GENERAL CHARACTERISTICS OF DEPRESSION

Comorbidity

Depression has one of the highest rates of comorbidity with other psychiatric disorders, with estimates typically about 40–50%, but they can be as high as 80–90% (Kazdin & Marciano, 1998; Yorbik, Birmaher, Axelson, Williamson, & Ryan, 2004). Childhood depression is most commonly associated with anxiety disorders (30–80%); ADHD and disruptive disorders (CD and ODD, 10–80%); and, in adolescents, with substance abuse (20–30%; Avenevoli, Swendsen, He, Burstein, & Merikangas, 2015; Yorbik et al., 2004). One explanation for the high comorbidity of depression is that it often develops after other disorders that have an earlier age of onset (Essau, 2003). In addition, there are questions about whether these disorders are truly separate and distinct, or merely reflect the fact that many symptoms of depression overlap with those of anxiety disorders and ADHD.

Children with depression and one or more co-occurring problems have a much more negative prognosis than those who manifest depression alone (Rohde, 2009). Depressed youth with comorbid conditions are at increased risk for longer duration and greater recurrence of depressive episodes; more suicide attempts; and poorer functioning, response to treatment, and utilization of mental health services. Even if youth show subclinical symptoms of depression, they have an increased risk of difficulties, including suicidality (Wesselhoeft, Sørensen, Heiervang, & Bilenberg, 2013).

Anxiety Disorders

Among children with depression, anxiety is the most common comorbid disorder (Cummings, Caporino, & Kendall, 2014). The tripartite model proposed by Clark and Watson (1991) suggests that depression and anxiety share a component called *negative* *affect*, but also have distinct features. "Pure" anxiety disorders are characterized by chronic high arousal, whereas "pure" depressive disorders are characterized by chronic low positive affect or anhedonia. Stark, Humphrey, Laurent, Livingston, and Christopher (1993) were able to distinguish depressed from anxious children on the basis of their negative cognitions. Children with depression expressed a more negative view of themselves, the world, and the future than did those with anxiety. Another distinguishing feature is that anxious children express more symptoms describing worries, especially about future events and competence (Laurent, Landau, & Stark, 1993). In a review, Cummings et al. (2014) stated that although risk factors do not differentiate anxiety and depression, anxiety typically precedes the onset of depression. They speculated that there may be different pathways for anxiety disorders to depression: (1) Children who are predisposed to develop anxiety (e.g., social phobia or separation anxiety disorder) then experience impairment from anxiety symptoms that leads to depression; (2) children with a shared diathesis for both anxiety (e.g., generalized anxiety disorder) and depression who develop both disorders at the same time; and (3) children who are predisposed to depression, in whom the impairment from depressive symptoms then leads to anxiety (e.g., social phobia).

Attention-Deficit/Hyperactivity Disorder

As described in DSM-5, ADHD and depression share some symptoms, which suggests that they may not be distinct disorders. However, reviews examining the comorbidity of depression and ADHD have concluded that the co-occurrence of these two disorders is not due to overlap in symptomatology (Daviss, 2008; Faraone & Biederman, 1997). It is not clear, however, whether the two have a common etiology, because both ADHD and depression have clear genetic components and common family-related risk factors, although these risk factors tend not to be specific for any particular type of psychopathology. Since depression typically develops several years after the onset of ADHD, it is possible that the differences between ADHD with and without depression may be due to nonfamilial environmental circumstances (e.g., social and academic failure, life stress), and the connection between ADHD and depression may be particularly relevant for girls (Biederman et al., 2008; Daviss, 2008).

Disruptive Disorders

There has been increased discussion in the past several years about the relationship between disruptive disorders and depression (Burke & Loeber, 2010). The comorbidity of MDD and CD is interesting given that there is very little overlap in symptoms, but both, in the more severe cases, lead to violence toward self or others (Burke & Loeber, 2010). Part of the issue with CD is that it is comorbid with many different disorders, which suggests that the dysfunction of CD may lead to co-occurring depression (Lahey, Loeber, Burke, Rahouz, & McBurnett, 2002). It has also been theorized that depression and CD share common risk factors, such as parental psychopathology, difficulties with emotional regulation, and cognitive distortions in social information processing (Wolff & Ollendick, 2006). Particularly, when negative life events are accounted for, the relationship between CD and depression disappears (Burke, Loeber, Lahey, & Rathouz, 2005), which suggests that life events can lead to these differing symptoms.

When looking at the development of these disorders, ODD appears to play a more pivotal role than earlier thought (Burke & Loeber, 2010). Disruptive disorders tend to develop before depression, with ODD emerging before both depression and CD (Burke et al., 2005). In fact, ODD is more predictive of later depression, even more predictive than childhood reports of depressive symptoms! It appears that the negative affective aspects of ODD (e.g., touchy, angry, spiteful) are most predictive of later depression, whereas the oppositional behaviors (e.g., loses temper, argues, defies) are more predictive of later CD (Burke & Loeber, 2010).

Persistent Depressive Disorder

Comorbidity between MDD and PDD[1] (formerly dysthymic disorder [DD]) is very high (up to 90%) and when the two occur together, it is often called *double depression* (Avenevoli et al., 2015). PDD is thought to be a precursor or risk factor for MDD. Early research revealed that as many as 70% of children with DD go on to develop MDD within 2–3 years after the onset of DD (Birmaher, Ryan, Williamson, Brent, & Kaufman, 1996). Moreover, the co-occurrence of MDD and DD is a good predictor of the number of recurrences and the persistence of depression into adulthood.

In contrast to the work regarding the co-occurrence of depression with anxiety disorders, CD, and ADHD, Goodman, Schwab-Stone, Lahey, Shaffer, and Jensen (2000) argue that there are not sufficient empirical data to view MDD and DD as separate disorders. They found that children with MDD and DD did not differ on sociodemographic, clinical, family, and life events variables, and concluded that children with both MDD and DD are simply more severely impaired than those with one or the other diagnosis.

Bipolar Disorder

Although BPD is not usually comorbid with childhood depression, between 6 and 31% of depressed youngsters eventually develop BPD (Hooks & McCauley, 1998; Kovacs, 1996). BPD typically develops after two to four major depressive episodes and within 4 years of the onset of depression (Kovacs, 1996). Higher rates of BPD are found in those with more severe and persistent depressive symptoms. Three features have been identified that may predict eventual onset of BPD: (1) rapid and early onset of depression, accompanied by psychomotor retardation and psychotic features; (2) a strong family history of mood disorders, especially BPD; and (3) hypomania in response to antidepressant medication (Kovacs, 1996; Youngstrom et al., 2008). In addition, adolescents and young adults who have experienced major depression and ADHD comorbidity may be more likely to develop BPD than those who just experience major depression (Chen et al., 2015).

Prevalence

A review of 6- and 12-month prevalence estimates of MDD shows a range of 1 to 3% for preadolescents and from 2 to 13% for adolescents (Avenevoli, Knight, Kessler, & Merikangas, 2008; Avenevoli et al., 2015), but these have been noted to be as high as 30% in community samples (Compas, 1997). Rates for DD are a bit lower, ranging from 0.6 to 1.7% for children and 1.6 to 8.0% for adolescents. The prevalence of other depressive disorders among children, including BPD, is extremely low. Although depression appears to be a relatively rare disorder among children, its prevalence increases with age, with as many as 20% of preadolescents and 65% of teenagers reporting subclinical symptoms of depression (Wesselhoeft et al., 2013) and as many as 30% with symptoms of major depression or dysthymia (Falment, Cohen, Choquet, Jeammet, & Ledoux, 2001). Moreover, there is a lifetime prevalence of 15–20% for adolescents and adults. In addition, there appears to be higher rates of DD than MDD in children but higher MDD than DD in adolescents, suggesting a developmental trend of an increase in severity of symptoms (Avenevoli et al., 2008). It is likely that these rates underestimate the actual prevalence of depression in children for several reasons. First, many children show significant internalizing symptoms and impairment of functioning but do not meet formal criteria for a diagnosis of MDD. Second, self-reports of depression provide higher estimates of the numbers of children who are suffering than do parent or teacher reports. Finally, the actual diagnosis of depression in children is difficult because of developmental differences in its presentation.

Developmental Course

Schwartz, Gladstone, and Kaslow (1998) review the developmental phenomenology of depressive symptoms in infancy and childhood (see Table 8.1). They note that despite the fact that distressed infants are incapable of self-reflection, they exhibit symptoms that are remarkably similar to those of older depressed children and adults. These features resemble those described by Bowlby (1981) and Spitz (1946) in their observations of infants separated from their primary caregivers or housed in a severely deprived environment. Depression is difficult to diagnose during the preschool years, because young children cannot yet verbalize their feelings or inner experiences, and there are few reliable and valid measures for assessment (Kashani, Allan, Beck, Bledsoe, & Reid, 1997; Tandon, Cardeli, & Luby, 2009). Parents may notice symptoms, but they tend to report them to pediatricians rather than mental health professionals. Kashani et al. (1997) found that by using a combination of information sources (parents, teachers, child self-report, and observation) they were able to successfully diagnose depression in 2- to 6-year-olds. Moreover, Mesman and Koot (2000a) found that teacher reports on the Child Behavior Checklist Teacher's Report Form (CBCL-TRF;Achenbach, 2013; Achenbach & Rescorla, 2001a, 2001b) of problems in the affective, social, and academic areas for 4- to 5-year-old children predicted depression at age 10–11 years. It is interesting that parents' ratings on the parent version of the CBCL were not predictive of later depression in their children.

Depression in the early elementary school years is often expressed through behavior problems, whereas older preadolescents may begin to verbalize feelings of low self-worth and hopelessness. Suicidal behavior begins to increase at this age, but sleep and eating problems are less likely than in younger or older children. School and peer relationship problems are common after age 6.

The onset of MDD is reported to be most likely after age 11 years; the modal age of onset is 11–14 years (Avenevoli et al., 2008). Earlier onset for less severe depression (i.e., DD) has also been noted, with the modal age of onset at about 7–8 years (Milling, 2001). In childhood, boys and girls appear to be at similar risk for depression, whereas adolescent girls are at least twice (and perhaps as much as five times) as likely to develop MDD as are adolescent boys (Avenevoli et al., 2008; Rao & Chen, 2009). Moreover, adolescent girls are more likely to experience severe depression and are at greater risk for recurrence of depressive episodes than boys. However, Kovacs (2001) reported no evidence of gender differences in either symptoms or course of depression in a clinic-referred sample of children age 11 years through adolescence.

The short-term prognosis for children with depression is relatively good. Episodes of MDD are typically short-lived, lasting between 5 and 9 months, and over 90% of cases of MDD show remission within 1–2 years (Birmaher et al., 1996; Kovacs, 1996). In contrast, episodes of DD last much longer, on average about 4 years.

In contrast to the short-term outlook, the long-term prognosis for childhood depression is guarded at best. Even when a depressive episode remits, children are likely to continue to experience subclinical symptoms of depression. Moreover, the relapse rate for children who have had one depressive episode is very high, and this rate increases with the number of recurrent episodes experienced (Avenevoli et al., 2008). Estimates of rates of recurrence range from 40% within 2 years to as high as 70% within

5 years (Birmaher et al., 1996; Kovacs, 1996). Most children who experience at least one recurrence of depression can be expected to continue to experience depression during adolescence and adulthood. Indeed, Harrington, Rutter, and Fombonne (1996) reported that 84% of clinic-referred children with an operationally defined depressive syndrome, as compared to only 44% of children without such a syndrome, evidenced a similar syndrome as adults. They noted, however, that the converse is not true; the majority of adults with depression do not have a history of childhood depression. The presence of any comorbid condition increases the risk of persistent depression and significant impairment later in life. Other predictors of recurrence and degree of impairment include early onset, severity of symptoms, parental history of depression, and multiple stressors in the home.

Associated Features

In addition to primary depressive symptoms, children with depression often evidence a constellation of associated problems. Because these are important for assessment and treatment, we review them briefly.

Suicide

The rate of suicide is relatively low among young children; from 2004 to 2014, it was estimated to be .12 per 100,000 for 5- to 11-year-olds in the United States, but it increased with age such that it has become the third leading cause of death among 10- to 14-year-olds, and the second leading cause of death among 15- to 19-year-olds (Centers for Disease Control and Prevention [CDC], 2016; Bridge, Greenhouse, Weldon, Campo, & Kelleher, 2008; Osterman, Kochanek, MacDorman, Strobino, & Guyer, 2015). In order to clarify the language, O'Carroll et al. (1996) defined suicidal behavior: *Suicidal ideation* includes reporting thoughts of suicide-related behavior, *suicide threats* are suggestions (either verbal or nonverbal) that someone may engage in suicide-related behavior in the future, and *suicide attempts* are self-injurious behavior, with evidence that the person intended at some level to kill him- or herself. Lifetime prevalence for adolescents shows higher rates of suicidal ideation (12.1%) than plans (4.0%) and attempts (4.1%) (Nock et al., 2013). Approximately 60% of those with suicidal ideation who have a plan go on to attempt suicide versus only 20% who do not have a plan. Studies have shown that children who evidence suicidal ideation and attempts are at high risk for repeated attempts even if they receive treatment (Nock et al., 2013), and the majority (68%) of these make more than one attempt (Kovacs, Goldston, & Gatsonis, 1993). In addition, those who commit suicide are more likely to have made contact with a primary health provider than with a mental health provider over the previous year, and particularly the month before a suicide (Luoma, Martin, & Pearson, 2002).

Childhood psychopathology is a risk factor for suicide, with approximately 90% of adolescents who attempt suicide having been diagnosed with at least one disorder in their lifetime, most likely depression (Nock et al., 2013). Depression is also more predictive of an adolescent developing a suicidal plan. After depression, the most likely diagnoses are specific phobia, ODD, intermittent explosive disorder, substance abuse, and CD. This suggests that disorders involving anxiety, irritability, and difficulties with behavioral control are more highly related to suicide attempts among those with ideation. In contrast, separation anxiety has been found to be a protective factor against suicidal behavior. The chance for having a disorder increases with more severe suicidal behaviors (Nock et al., 2013). Gender differences have shown that girls tend to have higher rates of nonlethal suicidal behavior, but boys have higher rates of suicide death, primarily from their use of firearms. In addition, there are increased rates of suicidal behavior among adolescents and adults whose parents died when they were children (Guldin et al., 2015). Although the highest effects are found if a parent committed suicide, the child was the firstborn, and the parent died before the child turned 6 years old, there is still a significant effect from parents who died from other causes. In contrast, there are lower rates of suicide by those that are living with their biological parents and have more siblings (Nock et al., 2013). This suggests that social supports may be a buffer for suicidal behaviors.

Suicide also tends to run in families. Monozygotic twins have a substantially higher rate of completed suicide than dizygotic twins, and the risk for biological relatives is higher than that for nonbiological relatives (Glowinski et al., 2001; Tidemalm et al., 2011). Overall, genetic and shared environment account for 33–73% of the risk of suicide. There is also more likely a history of childhood abuse and parental substance abuse among those with suicidal behaviors (Glowinski et al., 2001). Possible explanations for genetic factors include inherited impulsive or aggressive responses to frustration and personality traits that lead to poor problem solving. In addition, the shared family factors might include learning ineffective communication patterns from negative parenting interactions (Tidemalm et al., 2011).

School and Academic Problems

Although school and academic problems are not specific to childhood depression, it is not surprising that children who are depressed often present with these difficulties. It is not known whether school problems are antecedents or consequences of depression, however. A summary of research has documented a variety of memory and information-processing impairments among adults with depression, including difficulties with executive functions, psychomotor speed, attention, and memory (Wagner, Müller, Helmreich, Huss, & Tadić, 2015). Less work has been done with children, but studies have shown poorer classroom performance in children and adolescents with depression. A meta-analysis of cognitive functioning of youth with MDD (Wagner et al., 2015) revealed that youth with MDD showed significant weaknesses in comparison to healthy youth, with the largest differences in *inhibition capacity* (stopping an automatic response to stay on task), *phonemic verbal fluency* (generating particular words in a time limit), *verbal memory* (remembering a word list said out loud after several minutes), *sustained attention* (focusing cognitive activity on a particular task), and *planning ability* (organizing a plan of action for a goal). In addition, children with MDD have significantly lower intelligence scores, suggesting the possibility that the particular cognitive deficits may lead to overall impairment in academic functioning. This work suggests that school and academic problems actually may be caused by the depression via reduced cognitive skills. But poor school performance is likely to exacerbate preexisting depression as well.

Peer Relationships

There is a clear association between peer relationships and depression. Children who are depressed are more likely to be rejected by their peers, are perceived as less likable, and have more negative social behaviors than their nondepressed peers (Schwartz et al., 1998; Zimmer-Gembeck, Waters, & Kindermann, 2010). However, the relationship between these two factors is somewhat circular (Ollenburg & Kerns, 1997); that is, depression can interfere with the formation and maintenance of friendships. Conversely, rejection by peers and other social problems can conceivably cause or exacerbate symptoms of depression. The results of longitudinal studies suggest that children experience poor peer relations before they become depressed (Lansford et al., 2007). In addition, children's perceptions of peer rejection are more highly related to internalizing symptoms than actual rejection by peers, suggesting that children might perceive peer rejection whether or not it is happening and this leads to their depressive symptoms (Reinherz, Giaconia, Hauf, Wasserman, & Paradis, 2000).

There is also evidence that the association between peer relations and depression may be different for boys and girls. Ollenburg and Kerns (1997) found that unpopular fifth- and eighth-grade girls were more likely to evidence depressive symptoms than were unpopular boys, which suggests that girls may place more value on being popular than boys. In addition, some studies have shown peer support to be more of a protective factor for girls (Papafratzeskakou, Kim, Longo, & Riser, 2011). However, other studies have shown that although friendship quality may be positive for girls, there is an effect of *co-rumination*, excessively talking about problems, which increases depressive symptoms in friends (Rose, Carlson, & Waller, 2007). Also, there is an increased chance of physical victimization (physically harming another person) in boys who are depressed, and emotional victimization (harming someone's social standing or relationships) for girls who are depressed (Papafratzeskakou et al., 2011).

Cognitive Distortions

Considerable work with adults has consistently documented a negative attributional bias that differentiates those who are depressed from those who are not. Other work suggests that negative attributional biases are also present among children who are depressed (for review, see Jacobs, Reinecke, Gollan, & Kane, 2008). Moreover, longitudinal studies indicate that these cognitive distortions remain even after a depressive episode has remitted, and the interaction of stress and attributional style becomes stronger as children get older (Abela, 2001; Nolen-Hoeksema, Girgus, & Seligman, 1992). Taken together, this work indicates that childhood depression is associated with low self-esteem, high self-criticism, a perceived lack of control over negative events, and negative styles of interpreting information and coping with stress (Jacobs et al., 2008).

Children with depression also have more difficulties with information processing compared to their peers. For example, Bishop, Dalgleish, and Yule (2004) found that even nonclinically depressed children recalled more negative stories than positive stories compared to nondepressed children, and no age differences were found in the 5- to 11-year-old sample. Moreover, children with depression and children with conduct problems consistently show different styles of cognitive distortion. Depressed children attend to and recall negative self-referent words more than positive words, whereas the opposite pattern is true for nondepressed children. In contrast, children with conduct problems are biased toward attending to and encoding hostile cues and tend to interpret neutral information as hostile; however, children with both depression and CD tend toward more hostile attributions than those exhibiting only depression (Dodge, 1993; Schepman, Fombonne, Collishaw, & Taylor, 2014).

Other work has identified a style of coping called *learned helplessness* (Seligman, 1975) that characterizes individuals with depression. Learned helplessness includes a lack of persistence and motivation, passivity, the inability to generate effective solutions for problems, and a pessimistic attitude regarding the ability to cope. Moreover, individuals with learned helplessness tend to believe that they are responsible for negative events, whereas they attribute responsibility for positive events to external sources, which may lead to a “hopeless” outlook on situations (Abramson, Metalsky, & Alloy, 1989). Children with internal, global, and stable attributions for stressful or negative events are more likely to be depressed. Similarly, higher levels of depressive symptoms are associated with external, unstable, and specific attributions for positive events (Jacobs et al., 2008). Longitudinal studies indicate that when it is persistent, this attributional style may predict the onset of depression when the child experiences a stressful life event (Dodge, 1993). In fact, Jacobs et al. (2008) proposed integrating the literature on cognitive vulnerability and information processing in order to establish a developmental framework of difficulties in children with depression.

Etiology

Genetic/Biological Factors

Findings have been variable regarding the role of genetics in childhood depression. It has been shown that depression runs in families, and close relatives of individuals with depression are more likely to have the disorder than are unrelated individuals (Jones, Forehand, & Neary, 2001). In general, children of depressed parents are three times more likely to experience depression at some point during their lifetimes than are children of nondepressed parents (Wickramaratne, Greenwald, & Weissman, 2000). The risk of depression in offspring increases when both parents are depressed, and when parents have early-onset and recurrent episodes of depression (Mufson, Weissman, & Warner, 1992; Warner, Mufson, & Weissman, 1995).

In a review of genetic research, Rice (2010) estimated an effect size of approximately 0.4 for depression that begins in adolescence, similar to that for adults, but nonsignificant findings for heritability in childhood. This suggests that genetic factors may be more influential in adolescent-onset than in childhood-onset depression. Supporting this conclusion, Silberg, Maes, and Eaves (2010) found that family environment has a direct impact on childhood depression, while genetic and environmental factors predict child conduct problems. This highlights a developmental effect of parental depression in which environment is more influential in childhood, and genetic expression is more influential in adolescence and adulthood.

Several biological markers have been found to differentiate adults with depression from nondepressed adults. These include hyposecretion of growth hormone, dysregulation of the hypothalamic–pituitary–adrenal axis, dysregulation of serotonergic function, and sleep disturbance. In general, however, the results of studies examining these markers in depressed children have been inconsistent (Hammen, Rudolph, & Abaied, 2014) but generally suggest a developmental progression of difficulties from the experience of child to adult depression (Guerry & Hastings, 2011). Hammen et al. (2014) suggest that genetic and early adverse experiences can lead to vulnerabilities that interact with environmental stressors and lead to depressive symptoms. Since adolescents, in general, typically experience more stress (concurrent and cumulative) than do younger children, this would help explain the higher estimates of heritability for these older youth.

Early adverse experiences may be biological in that prenatal experiences may have an impact on the biochemistry and microarchitecture of the developing brain—in particular, the frontal lobe, which is important in the regulation and expression of emotion. Critical periods for the development of depression in children are thought to be during pregnancy and between 6 and 18 months of age. Mothers who are depressed during pregnancy, for example, may expose the fetus to an abnormal hormonal and physiological environment, as well as influences from other risk factors (e.g., malnutrition, smoking, or drug use). The results of research on neonatal infants with depressed mothers provides support for this idea. These infants tend to be less active, less socially responsive, and fussier than neonatal infants of nondepressed mothers (Tronick & Reck, 2009).

Significant differences between depressed and nondepressed mothers in mother–infant interactions have also been documented (Hammen et al., 2014; Nilsen, Gustavson, Roysamb, Kjeldsen, & Karevold, 2013; Tronick & Reck, 2009). Moreover, as early as 3–6 months of age, infants of depressed mothers consistently demonstrate higher arousal, indicating greater stress reactions (i.e., increased heart rate and decreased vagal tone) when they are interacting with their mothers. Infant behavior is also predicted by the mother's behavior; infants with intrusive mothers, who actively impede infants' actions, spend their time looking away from their mothers and do not look at objects. Infants with withdrawn mothers (i.e., mothers who are disengaged from their child) are more likely to cry and be distressed (Tronick & Reck, 2009). Most interestingly, this pattern persists when the infants of depressed mothers are paired with nondepressed strangers. Dawson, Hessl, and Frey (1994) argue that infants of depressed mothers experience social interaction as stressful even when they appear less outwardly distressed. Moreover, they suggest that this chronic experience of stress/arousal during infancy results in *ontogenetic sculpting* of neural networks; that is, brain synapses are systematically eliminated or enhanced on the basis of experience, highlighting the importance of alternative positive experiences for infants and children if they are unable to get this from their parents.

Family Factors

Numerous factors related to family functioning have been associated with childhood depression. Reviews and longitudinal studies of these factors (Hammen et al., 2014; Shelton & Harold, 2008; Stark, Banneyer, Wang, & Arora, 2012) present evidence that children are more likely to experience depression when their parents are divorced and/or they live with a single parent; when they come from low-socioeconomic status (SES) environments; and when they experience a high number of negative life events, especially losses. Moreover, families of depressed children are characterized by increased levels of parent–child conflict, and especially by marital/couple conflict around child-rearing issues. Mothers who are depressed perceive their children to be more difficult to parent than do nondepressed mothers. They have also been shown to have problematic parenting styles, including difficulties in the communication and expression of affect; inconsistent and negative disciplinary methods; and increased controlling, critical, and rejecting interactions with their children.

Despite considerable research on the associations between childhood depression and family variables, it is not clear that any of these factors is specific to depression; that is, they appear to be risk factors for the development of many different types of psychopathology (Nilsen et al., 2013; Shelton & Harold, 2008). So, although these variables may not contribute specifically to the etiology of depression versus other disorders, they highlight the importance of assessing and intervening with the family of a depressed child (Stark et al., 2012).

A Transactional Model

A transactional perspective provides a framework for integrating many of the factors we described previously to explain the development of depression in children. Hammen et al. (2014), for example, conceptualize depression as a heterogeneous condition that may be reached by many different developmental pathways involving the ongoing interplay among characteristics of the child, family (especially parents), and environment. Thus, diverse outcomes may result from the same set of risk factors; conversely, the same outcome may result from very different variables. Genetic characteristics and early adverse experiences may impact biological, emotional, cognitive, and interpersonal vulnerabilities. These difficult temperamental characteristics may set the stage for difficulties in emotional regulation that are seen in an infant (Tronick & Reck, 2009). This, in combination with a parent whose caregiving skills are compromised by depression, leads to the formation of an insecure attachment relationship; it may also play a role in the development of the cognitive distortions that are characteristic of depressed youngsters (Jacobs et al., 2008). As the child grows and develops, these early difficulties of both parent and child are compounded; in the presence of environmental risk factors, they are likely to result ultimately in the development of depression (Hammen et al., 2014).

ASSESSMENT OF DEPRESSION

The previous review shows that the assessment of depression in children may be difficult and involve many factors, but it is a very important process. It may be difficult because parents may not recognize the seriousness of their child's problems or, conversely, may overstate them. Moreover, the lack of agreement among parents, teachers, and children on measures of depression may be considerable. Although it is critically important for clinicians to use various methods to gather information from multiple sources, this process typically results in having to reconcile very discrepant reports from different informants. The child's age and the presence of maternal depression should be taken into account when integrating inconsistent information. Older children are more reliable reporters than younger children; self-report measures are not as helpful before the age of about 8 years. Consistent with a generally negative outlook among depressed adults, or a *depression–distortion hypothesis*, if a mother is depressed herself, she is likely to overstate the child's symptoms regardless of the child's age. Other types of maternal psychopathology do not seem to have the same effect (Gartstein, Bridgett, Dishion, & Kaufman, 2009; Youngstrom, Loeber, & Stouthamer-Loeber, 2000). Next, we review the assessment of depression from the Comprehensive Assessment-to-Intervention System (CAIS) framework (see Chapter 2).

Step 1: Initial Contact

At the time of the initial referral, parents should be asked to complete general questionnaires (e.g., our General Parent Questionnaire; see Appendix B) to provide demographic information and their perception of the problem. A standardized broadbased questionnaire, such as the Behavior Assessment System for Children, Third Edition (BASC-3; Reynolds & Kamphaus, 2015), allows the clinician to judge the severity of the child's problem(s) relative to other children the same age. The BASC-3 has both Depression and Anxiety scales, as well as an Adaptability scale that can be helpful in determining the child's ability to adapt to changes in the environment. The Child Behavior Checklist (CBCL; Achenbach, 2013; Achenbach & Rescorla, 2001a, 2001b) has a single Anxious/Depressed scale, and therefore does not differentiate well between anxiety and depression. However, the DSM-Oriented Affective Problems scale may be more closely linked to depression (Ferdinand, 2008). It is important to have both parents complete each measure, as there are often significant differences between parents' perceptions of the severity and frequency of a child's problems. This is particularly true when one or the other parent is depressed.

The Schedule for Affective Disorders and Schizophrenia for School-Age Children (K-SADS; Kaufman et al., 2016), the most frequently used semistructured diagnostic interview for children, is clinician-friendly and can help distinguish among possible forms of psychopathology. Parents of children under age 12 years can also complete the Parenting Stress Index, Fourth Edition (PSI-4; Abidin, 2012), and for parents of children over age 12 years there is the Stress Index for Parents of Adolescents (SIPA; Sheras, Abidin, & Konold, 1998) to provide information about the marital/couple relationship, parental depression, child temperament, and life stresses. In addition, the Parenting Alliance Inventory (Abidin & Brunner, 1995; Abidin & Konold, 1999) may be used to assess aspects of the marital/couple relationship most specifically related to parenthood and child rearing.

In order to screen for potential bipolar symptoms, an evidence-based approach has been recommended by Youngstrom, Findling, Youngstrom, and Calabrese (2005). With this approach, they recommend the following:

1. *Gathering a detailed family history of psychopathology, particularly mood disorders and BPD.* BPD is highly genetic, so the risk increases for a child if someone in the family has the disorder. However, they also caution that family report of psychopathology may be flawed.

2. *Using screening instruments to help identify symptoms.* General screeners such as the CBCL may be useful with a diagnostic interview, focusing on symptoms that fluctuate and specific symptoms of BPD (e.g., elevated mood, grandiosity, pressured speech, racing thoughts, and hypersexuality). The Young Mania Rating Scale (YMRS; Young, Biggs, Ziegler, & Meyer, 1978) is also helpful in differentiating the two conditions in preadolescent children (Yee et al., 2015).

3. *Estimating the possibility of BPD by taking into account information such as base rates of the disorder, family history, and results of assessment measures.* This approach has been shown to be easy to learn and helps community practitioners be able to distinguish BPD from other child disorders (Jenkins, Youngstrom, Washburn, & Youngstrom, 2011).

4. *Using multiple reporters, when possible, and monitoring behavior across time in order to see changes in mood expression.* In addition, to help distinguish BPD from DMDD, the clinician should assess whether the child is evidencing chronic irritability or anger (i.e., DMDD) or more episodic symptoms (i.e., BPD); however, there is also a need to distinguish these symptoms from other disorders with symptoms of irritability, such as ADHD, ODD, and anxiety disorders (Roy, Lopes, & Klein, 2014).

Step 2: Initial Intake Interview

Parent Interview

During the initial contact, the clinician can discuss with parents the best way to include the child in the initial interview. It is important that both parents attend the initial interview whenever possible, since they often have very different perceptions of their child's problems. The following areas should be addressed in the interview:

1. *Developmental history and current status.* The clinician should focus on the child's early development, particularly in regard to issues of temperament. Although it is important to keep in mind that depressed mothers typically perceive their infants as being more difficult (Tronick & Reck, 2009), it is not known whether this is because their infants truly are more difficult to care for or because the mothers are depressed. Specifically, negative affect, high or low threshold of arousal, high activity level, and physiological irregularity are important. Specific questions about the presence or

absence of symptoms listed in Table 8.1 that are associated with the child's age should be asked. If a diagnosis of MDD is of concern, the clinician should ask parents whether their child exhibits particular symptoms listed earlier in this chapter. Does the child, for example, complain that nothing goes right, no one understands, or there is nothing right about him- or herself? Does the child exhibit enthusiasm for anything? Does the child have trouble making decisions? Is the child proud of anything? Does the child appear tired or sluggish?

The child's early and current medical history should also be explored, with particular attention to any medications the child may be taking that might induce depressed affect. Furthermore, parents should be asked about any changes in sleep or eating patterns, and especially changes in weight (gain or loss, or failure to gain normally for younger children). Questions focused on the extent to which the child's functioning is impaired in different areas (e.g., sibling and peer relations, school, and academic work) are also important. Preliminary information about these areas can be obtained from the General Parent Questionnaire, and any concerns should be followed up during this interview.

Documentation of any possible comorbid conditions is essential in dealing with depression. Information gathered from the BASC-3 or CBCL can provide a starting place for this process. It is especially important to ask about symptoms of ADHD, anxiety disorders, CD, and BPD, to differentiate these problems from depression.

2. *Parent and family characteristics.* Information gathered from the screening instruments can provide a basis for discussion of these issues. If, for example, parental depression or marital/couple conflict appear to be problems, these should be addressed specifically. If the mother or father is currently depressed or has been depressed in the past, it is important to determine the age of onset, as this is a good predictor of the potential prognosis for the child; in particular, early-onset depression in mothers predicts the persistence and severity of child depression. In addition to asking about any suicidal behavior exhibited by the child, specific questions should be asked about suicide, suicide attempts, and suicidal ideation in the parents or close relatives, as this is closely related to child suicidal behavior. The presence of other forms of psychopathology (especially antisocial personality disorder or substance use disorders) in the parents or close relatives also should be queried.

3. *Parenting styles and techniques.* General information about the parents' attitudes and expectations for themselves as parents and for their child informs the clinician about aspects of the parent–child relationship that may influence parents' abilities to follow through with treatment. The clinician should be particularly alert for indications of overly high expectations, excessive criticism, and lack of positive reinforcement. Asking parents about their own parenting history is often illuminating.

4. *Recent and ongoing stresses.* A simple question such as "Has anything happened in your family lately that might be related to your child's problems?" often reveals

important information about current stressors. Early or recent onset of negative life events—especially those involving loss of a loved one—is an important area to address, as these events may have precipitated the onset of depression. Furthermore, ongoing chronic stresses (e.g., financial problems, stressful family relationships) have an important influence on the child's affect and mood. Finally, the parents should be asked about sources of support that are available to themselves, and to the child.

Child Interview

An interview with the child alone is essential in assessing depression. The form and content of this interview will depend on the child's age and/or developmental level. Specific questions should be asked about suicidal ideation and behavior, as parents often are not aware of these symptoms. The clinician can also observe a child of any age for symptoms of tearfulness/crying or experiencing normal situations as overwhelming or aversive.

Depending on the child's developmental level, it may also be useful to have him or her complete a general rating scale such as the BASC Self-Report of Personality, as well as a more specific scale, such as the Children's Depression Inventory, Second Edition (CDI-2; Kovacs, 2011). The CDI-2, the most widely used self-report measure for childhood depression, has 27 items and can be used for children ages 7–19 years (Stockings et al., 2015; see Appendix A). Another validated but free measure, the Center for Epidemiological Studies Depression Scale for Children (CES-DC; Weissman, Orvaschel, & Padian, 1980), has 20 items and can be used for children ages 6–18 years (Beidas et al., 2015; Stockings et al., 2015). Overall, self-ratings are generally better at screening for depression symptoms than parent or teacher report, since adults tend to underreport internalizing symptoms (Jensen et al., 1999). However, the downside of these self-report measures is that they are not always able to distinguish between depression and anxiety symptoms, and they may produce more false positives and negatives, so they should not be used as a sole indicator of symptoms (Klein et al., 2005).

In addition to these measures, the child and parents can be asked to keep a daily Mood Diary on which mood (happy, mad, sad, etc.) is rated on a 10-point scale, from 1 = "very little" to 10 = "a lot," along with notes about specific stressors or daily hassles (Figure 8.1). This diary gives the clinician information about day-to-day changes in mood and about events that may particularly bother the child; it also provides a way of evaluating progress in treatment. A Daily Activities Diary (see Figure 8.2) provides baseline information about the child's typical activities and indicates where changes need to be made (e.g., increasing pleasurable or social activities, decreasing use of video games or other solitary activities).

Mood Diary

Child's Name: ______________________ Age: __________

Experiences: Pleasant = P, Unpleasant = U	Time	Where I Was	How I Felt (happy, mad, sad); 1 = Very little, 10 = A lot	What I Said to Myself	What I Did
Sample					
Kids teased me U	8 A.M.	At school	Sad 8	I am so dumb, nobody likes me	Went to class and read a book

FIGURE 8.1. Mood Diary for assessment of childhood depression.

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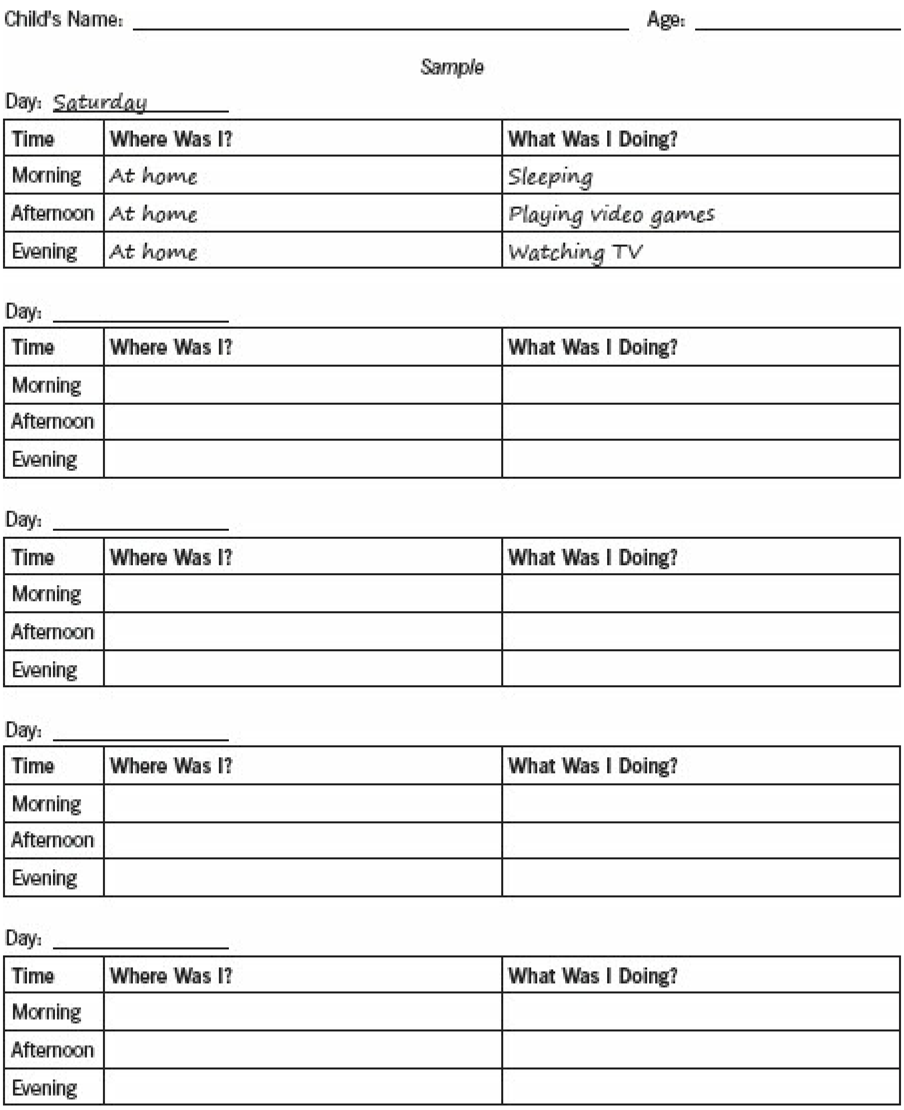
Daily Activities Diary



Child's Name: ____________________ Age: __________

Sample

Day: Saturday

Time	Where Was I?	What Was I Doing?
Morning	At home	Sleeping
Afternoon	At home	Playing video games
Evening	At home	Watching TV

Day: __________

Time	Where Was I?	What Was I Doing?
Morning		
Afternoon		
Evening		

Day: __________

Time	Where Was I?	What Was I Doing?
Morning		
Afternoon		
Evening		

Day: __________

Time	Where Was I?	What Was I Doing?
Morning		
Afternoon		
Evening		

Day: __________

Time	Where Was I?	What Was I Doing?
Morning		
Afternoon		
Evening		

FIGURE 8.2. Daily Activities Diary for assessment of childhood depression (back side of Mood Diary; see Figure 8.1).

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Suicide Assessment

It is always important to screen for suicidal symptoms in children, but most particularly in children who present with depressive symptoms. Since feelings of hopelessness are strongly associated with suicidal behavior, this might be an area to target specifically (Callahan, Panichelli-Mindel, & Kendall, 1996). The Hopelessness Scale for Children (HSC) was developed to assess whether children view positive events in their future (Kazdin, Rodgers, & Colbus, 1986; see Appendix A). Scores on this measure are correlated with depression, suicidal ideation and behavior, and low self-esteem. For older youth, the Suicide Probability Scale (SPS; Cull & Gill, 1988) can be used to gather more information about suicide risk, including hopelessness, suicidal ideation, negative self-evaluation, and hostility. This measure has been shown to be very useful for predicting a range of suicidality, above and beyond other measures of suicide-related behavior (Huth-Bocks, Kerr, Ivey, Kramer, & King, 2007).

Throughout the assessment process, there are several ways that clinicians may receive indicators of suicidal behavior. Parents or children may report difficulties either verbally or on questionnaires, or the clinician may observe low mood or other behaviors suggestive of suicidal intent. Any of these indicators should be followed up by the clinician with further questions about potential thoughts, plans, and past attempts, in order to assess the potential for harm. Goldston and Compton (2007) recommend several areas for best-practices assessment of suicidality in clinical practice:

1. It should be standard in clinical practice to ask all youth suicide-related questions, despite the referral issue, with ongoing assessment throughout treatment particularly for those at risk (e.g., history of self-harm, depression symptoms, comorbid psychopathology). Parents and youth should be assured that talking about suicide does not increase the chance of occurrence. In fact, validating someone's thoughts and talking about them may reduce suicidal behaviors and other psychopathology (Dazzi, Gribble, Wessely, & Fear, 2014).

2. Assessment of suicidal behaviors should include multiple informants and methods, but definitely should include youth self-reports.

3. When assessing imminent risk of suicidal behavior, the clinician should take into account not only the youth's self-report but also available supports, particularly the family members and their ability to monitor the youth.

4. Screening measures not only should be valid and reliable but also use variables (e.g., hopelessness) that have been shown to predict suicidality.

5. Assessment should be a process that includes therapeutic action on the part of the clinician when worrisome behaviors are noted.

There are different levels of suicidal risk that should be assessed by clinicians. Most suicidal behavior, especially for younger children, falls in a lower risk category involving ideation; however, this does not mean that it should not be taken seriously. Even when there is ideation or a plan, it is important for the clinician to get detailed information in a caring way so as not to heighten the anxiety of the child or family. Then, a *safety plan* or *crisis response plan*, a plan of action of what the child and family should do when the youth is having these thoughts/feelings, should be developed with the child and family about ways to keep the youth safe. The clinician should normalize these feelings and help the family understand these thoughts and behaviors, especially taking into account their family, cultural, and religious values on the topic. A safety plan is preferred to a *no-*

suicide contract (i.e., a signed document in which the person states that he or she will not harm him- or herself), since it lists actions for the family and has been shown to be more effective in suicidal situations (Rudd, Mandrusiak, & Joiner, 2006).

A safety plan should include people the youth feels comfortable talking to when he or she has suicidal thoughts, a plan for what to do instead of the suicidal behaviors (i.e., listen to soothing music, draw in a notebook, talk to a friend, take a walk with a parent and family dog), and emergency contact numbers, if needed. It is also critical that family members be willing to monitor the youth in order to ensure safety. This may include keeping the youth close by, not leaving him or her home alone, and possibly having the youth sleep by the parent through the night. In addition, a safety plan includes making the home and other spaces safe and free from objects that may cause harm (i.e., knives, medication, guns). Also, it may be important to talk to school personnel about safety plans in that setting. For example, we once had a case in which a youth's suicidal thoughts involved running out in front of a school bus. Therefore, the family met with school personnel and made a plan to keep the youth safe while waiting for the school bus at the end of the day.

When there is evidence of suicidal behavior, particularly a developed plan and/or current or previous attempts, the clinician should talk with the family about emergency services in the community. The clinician should be familiar with hospital screening procedures in the area and be able to discuss this with the family, preferably before a crisis, so the family knows what to expect. The family members may also need to check with their insurance to see what type of coverage they have and specific procedures; for example, some insurance requires that the family go straight to a hospital for screening, and knowing this might save them time during the crisis. If a family is in crisis and does not know what to do, particularly in after-hours situations and when danger to the youth is imminent, family members should always be able to go to the local emergency room (ER). Even if a child is admitted into the hospital, the average length of stay is approximately 5 days; in the United States, from 1990 to 2000 (Case, Olfson, Marcus, & Siegel, 2007), the number of youth discharged from inpatient community hospitals did not change, but the total amount of time spent lessened significantly (from 12.2 days to 4.5 days). Therefore, goals for hospitalization often include short-term stabilization, assessment or adjustment of medication, and development of a safety plan to return home. It is important for the clinician to monitor the youth's treatment progress in the hospital and help the family members readjust when the youth comes home and continue to monitor the suicidal behavior.

Step 3: Observation of Behavior

Direct observation of the parent–child interaction is always useful. For younger children, observing parents and the child play together as they would at home is suitable. For older children, a problem-solving task is appropriate (Garber & Kaminski, 2000). The parents and child can independently complete a checklist of common sources of conflict, such as doing homework, completing chores, enforcing curfews, or fighting with siblings (or they can discuss examples with the clinician). The clinician then chooses one or two areas of conflict indicated by both parents and the child, and asks them to discuss and resolve the situation. Observation of this interaction does not need to involve formal coding, but it should focus on the extent to which the family expresses positive versus negative affect, level of criticism or praise, problem-solving skills, and conflict resolution.

Step 4: Further Assessment

A teacher interview may be a critical component of assessment for childhood depression. Teachers' ratings of depression may be more accurate than those of parents for several reasons (Mesman & Koot, 2000b). First, teachers, unlike parents, may not have psychopathology that would interfere with their objective perception of the child. Second, teachers can compare the child's behavior to that of many other children the same age, which enhances their ability to notice deviance. Third, teachers have more opportunity to observe social and academic problems, and these are often good indicators of depression. Alternatively, teachers may not notice depression symptoms if the child is not causing problems in the classroom. Permission to contact the teacher should be obtained and a broadband questionnaire such as the BASC—Teacher Report Form (Reynolds & Kamphaus, 2015) should be sent out. The internalizing items on the CBCL-TRF (Achenbach, 2013; Achenbach & Rescorla, 2001a, 2001b), have been shown to correspond to children's self-reports of depression both concurrently and predictively (Mesman & Koot, 2000a, 2000b). In addition, the externalizing items "demands attention," "jealous," and "screams" are related to child depression. Social and school-related behaviors of note include "fails to finish assignments," "difficulty learning," "is teased," and "is not liked." An interview with the teacher, either in person or by phone, should be scheduled to follow up on this information. Psychoeducational evaluation is indicated if the child is experiencing academic problems.

Parents can also be asked to complete questionnaires such as the Dyadic Adjustment Scale (DAS; Spanier, 1976) and the Beck Depression Inventory—II (BDI-II; Beck, Steer, & Brown, 1996) to further assess marital/couple relations and parental depression (see Appendix A).

Step 5: Collaboration with Other Health Care Professionals

If the child has not had a recent physical examination, he or she should be referred to the pediatrician to rule out medical conditions that are associated with depressed affect, such as endocrine disorders, chronic infectious states, chronic inflammatory diseases, and neurological conditions affecting the central nervous system. In addition, if the child is on medication, it is important to look at possible side effects, including depressive symptoms. Finally, if either parent is experiencing depressive symptoms and is not already receiving treatment, it may be appropriate to refer him or her to a mental health professional or psychiatrist.

Step 6: Communication of Findings and Treatment Recommendations

The clinician's relationship with the family members and empathy toward their situation are very important when giving feedback about the child's depressive symptoms. Also, the clinician should discuss with the family the structure of the feedback (e.g., should all of the family meet together, or should the clinician start with the parents, then have the child join them?) and, when possible, include both parents and the child. The clinician's understanding of the nature, etiology, and severity of the child's depression, as well as potential treatment approaches, should be discussed. A clear understanding of these issues, as well as how the depression fits into the child's developmental picture, will help the parents and child begin to trust the clinician and maximize the possibility of their cooperation with treatment. Some discussion of the prognosis for the child's problems is also warranted, although this must be done carefully to avoid creating or exacerbating a sense of hopelessness in either the parents or the child. When there is a strong family history of depression, the genetic implications of the disorder may be discussed. Moreover, the recurrent nature of depression should be stressed, along with the need for ongoing treatment.

TREATMENT OF DEPRESSION

Treatment of childhood depression can be complex and difficult. Although some of the initial approaches to intervention with children have been derived from those found to be successful in treating adults with depression, more recent studies have used techniques that are developmentally informed. These techniques include focusing on children's environmental settings (e.g., family, school) and particular psychosocial stressors (e.g., peer rejection, school problems). In a review, David-Ferdon and Kaslow (2008) recognized developmental differences in treatment by dividing efficacious treatments for depression by those that work for children versus adolescents. For children, cognitive-behavioral therapy (CBT), including aspects such as problem-solving, social skills, attribution, and self-control training, has been shown to be the most efficacious treatment. Most of the research involves group CBT for youth, but there is also support for a child group with a parent component. In addition, behavioral treatment has been shown to be effective, particularly psychoeducation, self-monitoring, problem solving, and progressive muscle relaxation (Chorpita & Daleiden, 2009). CBT is also effective for adolescents. In addition, interpersonal therapy for adolescents (IPT-A), which looks at patterns of communication in relationships, has been shown to work with adolescents and may be most effective for those youth showing high conflict with parents, more severe depression, and co-occurring anxiety disorders (Maalouf & Brent, 2012). Although parents were included in many treatments reviewed, such as through parent education and parent–child sessions, very few studies included traditional family therapy interventions. In addition, treatment gains were made across several different types of treatment setting, including schools, community or hospital based clinics, and/or primary care settings (David-Ferdon & Kaslow, 2008). Also, it is important to note that treatment gains were endorsed mostly by the youth in the interventions.

Increased focus on interventions for suicidal behaviors has provided initial findings for effective treatments, particularly for adolescents. A recent meta-analysis shows the probable efficacy of several types of treatments from a range of theoretical orientations (Glenn, Franklin, & Nock, 2015). Many of these studies combine different treatment targets, which makes sense considering the risk factors and intent to harm associated with suicidal behavior. For example, individual CBT alone was not shown to be more effective than other treatments, but the combination of individual CBT plus family and parent training was found to be more effective. The review suggests common elements across most of these effective treatments, including (1) targeting relationships, particularly family interactions using psychoeducation and training in communication and/or problem solving; (2) skills training for youth in areas such as emotion regulation, problem solving, and/or conflict resolution; (3) parent skills training to help parents monitor behavior and provide consistent feedback to youth; (4) intensive interventions with a greater number of clinical contacts and increased length of treatment; and (5) targeting other factors that may be related to the suicidal behaviors, such as substance use, family interactions, and conflict. Also, in contrast to effectiveness studies for depression, using group therapy alone may be harmful to youth due to *contagion* through continued discussion of suicidal behaviors (Glenn et al., 2015).

Other treatment approaches for decreasing depression and suicidal behavior in youth have shown initial effectiveness. *Mindfulness-based therapy*, the practice of observing internal or external experiences with a nonjudgmental attitude, has been shown to be effective for depression in adults, with some preliminary positive results in treatment of children with internalizing symptoms (Hofmann, Sawyer, Witt, & Oh, 2010; Kallapiran, Koo, Kirubakaran, & Hancock, 2015). For example, mindfulness-based cognitive therapy (MBCT), which combines mindfulness with cognitive skills, has shown initial effectiveness in decreasing stress and internalizing symptoms. In addition, pilot studies indicate that dialectical behavior therapy for adolescents (DBT-A) has been shown to successfully treat suicidal behavior in adolescents, but more research is needed to evaluate whether it is as effective as studies with adults evidencing suicidal behavior (Glenn et al., 2015). A review of factors related to relapse after treatment suggests the need to monitor severity of depression; comorbid conditions, especially anxiety; lack of support for parents and child; parental psychopathology; high levels of family conflict; high rates of stressful life events; and low SES (Kennard, Emslie, Mayes, & Hughes, 2006). In addition, *residual symptoms*, symptoms that continue after treatment, such as sleep issues, irritability, low self-esteem, tiredness, and low enjoyment of activities are related to relapse. With these factors in mind, we now present specific methods for intervention with the child and parents, and in the environmental and medical areas.

Intervention with the Child

Treatment of a child with depression can be provided in an individual or group setting. Both approaches have advantages and disadvantages, and many intervention programs include both. In individual therapy, the clinician has a better opportunity to understand the child's unique issues, thoughts, and feelings; in the group setting, the child can practice new skills and behaviors with peers. The following approaches are among those most commonly used in treatment of a depressed child. Each must be adapted to fit the individual child's developmental level.

Cognitive-Behavioral Therapy

CBT focuses on the child's persistent cognitive distortions. The behavioral aspect targets increasing pleasurable activities and changing specific response repertoires. Stark et al. (1996) describe a comprehensive CBT program for depressed children. Specific components of this program include the following:

1. *Affective education.* The child is taught about the nature and functions of emotions, and the link among thoughts, feelings, and behavior. The goal is to use emotions as a cue to use coping strategies. Various games about feelings can be used (e.g., The Talking, Feeling, Doing Game; available from The Guidance Group). Younger children can create a "feelings book" that includes various activities related to understanding and managing feelings. For example, each emotion has its own page, on which the things that make a child feel that way (mad, sad, happy, etc.) are listed. Pictures reflecting each emotion are drawn or cut out of magazines and pasted on the page. Ways of coping with negative emotions are discussed.

2. *Activity planning/behavior activation.* The child's positive experiences are increased through the scheduling of pleasurable activities. These can be discussed and

planned during the child's session, with parental permission and support obtained afterwards; or activities are planned during parent–child sessions with parents helping the child identify activities of interest.

3. *Problem solving.* The clinician helps the child develop a problem-solving approach to life, and the child learns specific problem-solving skills (identifying the problem, generating alternative solutions, evaluating the possible consequences of each alternative, choosing one solution to try, and enacting the plan).

4. *Social skills training.* As another means of decreasing maladaptive behavior, the child learns skills such as assertiveness, communication, conflict resolution, and accepting and giving feedback.

5. *Self-instructional training.* The child learns to self-monitor thoughts and feelings, and to use self-talk to alter automatic negative thoughts (e.g., "I can do this" vs. "I am no good at this"). Programs in self-instructional training described by Meichenbaum (1977) and Kendall (1994) focus in this area.

6. *Relaxation training.* The child learns relaxation techniques combined with positive imagery as a way of coping with difficult situations (see Chapter 7).

7. *Cognitive restructuring.* The child learns to change negative self-evaluations and cognitive distortions by self-monitoring of pleasant events and emotions, setting reasonable goals and standards, challenging misattributions, and learning more adaptive thought processes.

Before conducting cognitive interventions with a child, it is important that the clinician assess the child's developmental ability to complete the tasks. CBT becomes more appropriate for older children, but it has also been used successfully with children as young as age 6 years (David-Ferdon & Kaslow, 2008).

Intervention with Parents

Because individual treatment is less likely to be effective for preschool and early elementary school children, intervention for younger children is best focused on helping the parents change the child's environment (Cartwright-Hatton, McNally White, & Verduyn, 2005). Observation of parent–child interactions should indicate whether the parents would benefit from parent management training. Many aspects of a parenting program for externalizing symptoms (see Chapter 10) are appropriate for parents of depressed children, including a focus on increasing the child's experience of positive interactions with parents, increasing parents' use of positive reinforcement, and teaching the parents positive approaches to discipline. Parent management training tends to reduce parent–child conflict; it has been shown to decrease children's internalizing symptoms and may also decrease depressive symptoms in parents

(Cartwright-Hatton et al., 2005). In addition, an emotional recognition and expression component (e.g., parents repeating children's emotion words or saying "You did feel sad when you lost your toy") has been effectively added to parent–child interaction therapy (PCIT) to decrease depressive symptoms in young children ages 3–7 years; this intervention also decreased parental stress (Luby, Lenze, & Tillman, 2012).

Since depression in parents is related to subsequent child depression, several studies have looked at the effects of treatment of parents on their children (Pilowky et al., 2008; Spirito et al., 2015; Verdeli et al., 2004). The following different forms of treatment positively affect depressed children: (1) Treatment of parental depression with medication and/or psychotherapy has been shown to decrease youth problem behaviors and/or increase youth functioning even without treatment of the child (Pilowsky et al., 2008); (2) treatment of both the child's and the parent's depression separately but at the same time (Verdeli et al., 2004); and (3) treatment of both the child's and the parent's depression concurrently through a similar treatment protocol with individual sessions and conjoint family sessions (Spirito et al., 2015). It appears that when depression recedes, parents are better able to attend to and interact with their children, which increases the attachment relationship and leads to improved child outcomes, independent of the child's own treatment (Weissman et al., 2014). In addition, if marital conflict appears to be interfering with child treatment response, it could also be an area of intervention (Amaya, Reinecke, Silva, & March, 2011).

Intervention in the Environment

School consultation is likely to be necessary in working with children who are depressed and can be a very effective method of helping children to increase their functioning in the school environment. Moreover, school-based interventions may reach children who do not have other options for treatment (David-Ferdon & Kaslow, 2008). School personnel such as teachers and counselors can be made aware of the child's problems and engage in discussions with the family and/or clinician about psychoeducation about the disorder and confidentiality about the child's situation as needed. In addition, accommodations can be discussed that may help the child be more successful. If necessary, the family might ask whether the child qualifies for the Individuals with Disabilities Education Act (IDEA), under the Emotional Disability category (Birmaher, Brent, & AACP Work Group on Quality Issues, 2007). Possible interventions include temporarily reducing the demands of the academic program; providing additional support and encouragement for completing assignments; encouraging the child to use the coping skills taught during his or her therapy sessions; and/or prompting the child to think positively about situations in the classroom or with peers (Stark et al., 1996). Periodic monitoring of the child's progress through teacher rating scales should be built into the child's program, and feedback should be given to the teacher as appropriate.

Intervention in Medical/Health Aspects

Depending on the severity of the child's depressive symptoms and family history of depression, the clinician should refer the family to a medical professional for assessment of a possible medication trial. The decision to refer a child for possible medication treatment of depression is a difficult one. Various factors must be considered, including the severity, persistence, and recurrence of the child's symptoms; the child's response (or lack of response) to psychosocial interventions; the probability that the child and parents will be compliant with medication instructions (which may be difficult for depressed adolescents!); the presence of comorbid conditions, such as ADHD and anxiety, that might respond to medication; the cost–benefit ratio in terms of potential main effects versus side effects; and the parents' and child's feelings about medication (Hughes et al., 2007).

Considering the research on treatment of depression, Sommers-Flanagan and Campbell (2009) proposed the following guidelines for referring a child for medication:

1. First-line treatment for children and adolescents should be evidence-based and culturally sensitive psychotherapy, which should also be closely monitored for suicidal thoughts and behaviors.
2. After 8–12 weeks of psychotherapy, if symptoms have not reduced an acceptable amount, it may make sense to arrange a medication consultation with a provider trained to treat depressive symptoms or transfer the youth to a different psychotherapy clinician.
3. If medication treatment begins, psychotherapy should also continue, especially since doing both at the same time may reduce suicidal behavior. Treatment providers should collaborate regarding response to treatment and potential side effects.
4. Starting medication and psychotherapy at the same time may be appropriate in some cases of severe depression in order to facilitate early treatment response.
5. If parents prefer medication treatment without psychotherapy, they should be educated about the current evidence base for treatment, benefits of skills building through psychotherapy, and the side effects of medication treatment. In addition, the youth should be closely monitored weekly for the first 4 weeks of treatment and biweekly for the next 4 weeks to assess suicidal behaviors.

Pharmacological treatment of children with depression increased dramatically in the 1990s (Zito et al., 2002) with the introduction of the selective serotonin reuptake inhibitors (SSRIs; e.g., fluoxetine [Prozac], sertraline [Zoloft], paroxetine [Paxil]). Indeed, prescriptions for SSRIs written for children *under age 5 years* increased over 500% between 1996 and 1997 (Hoar, 1998)! However, after a black box warning was added to SSRIs by the U.S. Food and Drug Administration (FDA) in 2003, due to the increased potential for suicidal ideation, prescriptions for antidepressants have decreased significantly, and more children and adolescents have been referred to psychiatrists who specialize in medication management of treatment for depression (Nemeroff et al., 2007).

Of the SSRIs, the strongest research evidence is for fluoxetine, and it is the only FDA-approved SSRI for children and adolescents, so it is the first-line medication choice for depression (Hughes et al., 2007; Maalouf & Brent, 2012). Overall, SSRIs appear to be well-tolerated by youth, with a few side effects (e.g., gastrointestinal symptoms, sleep issues, restlessness, headaches) and some chance for irritability, agitation, or impulsivity (Birmaher et al., 2007). The Texas Children's Medication Algorithm Project (Hughes et al., 2007) has recommendations and decision trees for use of SSRIs and alternative medications, if SSRIs are not effective, including alternative antidepressants and possible augmentation with lithium, but very few data support these steps. Tricyclic antidepressants (TCAs; e.g., imipramine [Tofranil]) are not recommended for children given that they have not been shown to be effective in this population.

The Treatment for Adolescents with Depression Study (TADS) is a multisite, randomized, placebo-controlled study examining the effectiveness of CBT, SSRI treatment with fluoxetine, the combination of CBT and fluoxetine, and medication management with a placebo pill. A summary of TADS results (Reinecke, Curry, & March, 2009) showed that after 12 weeks of treatment, the combination treatment had the largest response rate (71%), followed by fluoxetine only (61%) and CBT only (43%), but also a strong placebo effect (35%). At 36 weeks, combination treatment still produced the largest response (86%), and both CBT only and fluoxetine only were equally effective (81%). These findings suggest that treatment is effective for over 80% of youth who continue in treatment, with CBT and SSRIs having similar outcomes, and the combination of both producing the best outcome. In addition, medication management with fluoxetine in the initial stage of treatment seemed to "accelerate" progress in these youth. However, suicidal ideation and behaviors were more common in the fluoxetine-only group. The most improvement in suicidal ideation occurred in the combined and CBT-only groups (Reinecke et al., 2009).

Children and adolescents diagnosed with BPD are often treated with medication. Monotherapy of mood stabilizers or atypical antipsychotics are the first-line treatment for these youth (Nandagopal, DelBello, & Kowatch, 2009). Lithium, a mood stabilizer shown to be effective for adults, has been approved by the FDA for children over age 12 years and has shown some effectiveness in lessening manic symptoms in youth. Atypical antipsychotics, including risperidone (Risperdal) and aripiprazole have also been approved for BPD in children over age 10 years, and initial data show their utility with this population. However, mood stabilizers and atypical antipsychotics have problematic side effects to monitor, such as nausea, vomiting, hypothyroidism (for lithium), and significant weight gain for antipsychotics that can lead to additional health issues (Nandagopal et al., 2009). A recent meta-analysis identified effective psychosocial treatments that may be used in addition to medication treatment. Common factors across studies indicate that intervention for youth with BPD should include psychoeducation; CBT skills building, particularly with communication; problem-solving and emotion regulation skills; and strategies to prevent relapse of symptoms (Fristad & MacPherson, 2014).

CASE EXAMPLE: SUBCLINICAL DEPRESSION

Step 1: Initial Contact

Mrs. Silver called regarding her 9-year-old daughter, Julie, who had increasing complaints about not having friends, anxiety about her performance in school, and a general level of unhappiness. The family had been seen previously when Julie was 4 years old. At that time, Mr. Silver had just begun a prison sentence for selling drugs, and Mrs. Silver was solely responsible for running the family business and caring for Julie. Both parents had a history of drug and alcohol abuse. Julie was their only child, born when the parents were in their late 30s. Julie's developmental history was not significant, and Mrs. Silver reported that she had not used drugs or alcohol during her pregnancy. Mrs. Silver's primary concerns at that time were that Julie had regressed in the 6 months since her father had been in prison and wanted to be treated like a baby, including being bottle-fed, using diapers, clinging to her mother throughout the day, and sleeping with her at night. Toilet training had not yet been accomplished. Mrs. Silver reported little interest in playing or interacting with Julie and in fact said she was not sure how to do this. Treatment at that time included (1) PCIT to improve the parent–child relationship; (2) structuring a daily routine, including a regular bedtime; (3) encouraging increased contact with other mothers and children; and (4) a toilet training program. Within 6 weeks, both mother and child responded well to treatment. Julie was toilet-trained, sleeping in her bed at night, and playing with other children.

Prior to seeing the parents, the clinician sent them the CBCL, the PSI-4, and a Daily Log (see Appendix B) to complete. Scores on the CBCL for both parents were in the subclinical range on the Anxious/Depressed, Social Withdrawal, and Somatic Complaints scales. On the PSI-4, the parents described Julie as having poor adaptability, and as being very moody and demanding. Both parents reported being depressed, in poor health, and not enjoying their relationship with Julie. They perceived their marriage as being within normal limits but not "great." Data on the Daily Log indicated that Julie was very irritable and had frequent tantrums, particularly over going to bed, getting up in the morning, and going to school.

Step 2: Initial Intake Interview

Parent Interview

Parents were seen alone for the initial interview in order to explore the current family situation and their health status. Mr. Silver reported that he had finished his prison sentence 4 years earlier and returned to running the family business. Both parents indicated that they were still drinking and using drugs, but they felt this was under control. They reported drinking about 6–8 ounces of alcohol each at night after they put Julie to bed. Both parents described significant levels of depression and indicated that two paternal uncles were on medication for depression. Although they did not report specific marital conflict, neither felt that he or she was getting much support from the other. They also reported some financial concerns regarding their business.

The Silvers were living in an isolated part of the county with no neighbors, and Julie was in the fourth grade at the local public school. The parents described Julie as a bright child who began having significant problems with schoolwork at the beginning of the current school year. She refused help with her homework and would have tantrums if forced to do it. Furthermore, she was very perfectionistic about her work, often taking an hour to complete a simple assignment. Of greater concern to them than the schoolwork, however, were Julie's complaints that no one liked her, her belief that she was not good at anything, and her increased guilt about anything that happened (regardless of her actual involvement). She also was having nightmares and difficulty sleeping at night. Moreover, she frequently complained about stomachaches, headaches, and various other somatic problems. Although Julie complained about not having friends, the parents often saw her playing or talking with other children when they picked her up at school. School problems primarily centered around completing written assignments and organizing reports or projects. Mr. and Mrs. Silver had talked to the teacher, but no specific suggestions had been given to them, and they felt they did not know how to proceed. The parents did not want the clinician to talk with the teacher unless Julie felt OK about it.

The family's daily routine was rather chaotic. They reported that the mornings were unpleasant, with the parents yelling, with Julie having problems waking up and getting ready for school, and with the father being angry about being late for work. Julie rarely ate breakfast but would take something to eat in the car on the way to school. She often forgot her books and homework. Mrs. Silver picked her up every day after school, and although Julie initially seemed happy to be home, her afternoons were spent either complaining about things or watching television. The family did not eat together on a regular basis, because Mr. Silver was often late, and on many days Julie did not have dinner until 7:30 P.M. Bedtime was also a struggle. Frequent nightmares resulted in Julie's requesting to sleep with her parents. Julie rarely had any friends over, and she did not visit anyone else. She had no afterschool activities. Likewise, the parents engaged in no community activities and had limited social contact with others.

Child Interview

Julie was a bright, highly verbal child who appeared unkempt and disheveled. She understood that her parents were concerned about her schoolwork and her behavior at home. Although she felt that she should be able to do better in those situations, and felt guilty for causing her parents problems, she did not know what she could do to make things better. However, she did say that she wanted to talk with the therapist and wanted things to be better for everyone. She said that she was having problems with friends at school and that no one liked her. She described somatic complaints, poor frustration tolerance and, in general, great loneliness both at home and at school.

The CDI-2 was administered. Julie received a score of 19, which was in the subclinical range. Her highest score was on the Anhedonia scale, on which she reported social problems, not having fun at school, trouble sleeping, loneliness, and worries. She denied having specific reading or writing problems but did say that it was harder for her to get things organized and to get her thoughts onto paper. She felt she "just couldn't do anything right."

Step 3: Observation of Behavior

Observation of the parents and child took place in the waiting room and during a problem-solving situation (e.g., planning a family vacation). Julie tended to be overcontrolling, and the parents were permissive but often expressed anger and frustration in their responses to her. They felt that this behavior was typical of their interactions at home.

Step 4: Further Assessment

The parents and Julie agreed that the therapist could talk with her teacher by phone, but they did not want a school visit. The teacher was contacted and agreed to complete the CBCL-TRF and the Social Skills Rating Scale (SSRS). The teacher's ratings on the CBCL-TRF indicated significantly high scores on the Anxious/Depressed and Somatic Complaints scales, and subclinical levels of problems in the social area. Scores on the SSRS indicated that Julie was often neglected by the other children and did not know how to make friends. The teacher said that in addition to the problems noted on the rating scales, she was quite concerned about Julie's attentional skills (problems with following directions). She described Julie as not seeming to understand what was expected of her. She rarely completed assignments and had organizational problems with long-term projects.

The teacher thought that a psychoeducational evaluation was needed, and the clinician agreed that this would help them get a better understanding of Julie's problems. The parents elected to have the evaluation done privately. The results of this evaluation indicated that Julie was in the high-average range of intelligence and had average academic skills, but she was having auditory memory and sequencing problems.

Step 5: Collaboration with Other Health Care Professionals

The results of the psychoeducational evaluation prompted a referral to a communication/language specialist, who found that Julie had moderate auditory processing dysfunction that might be interfering with her ability to understand oral directions. Specific recommendations were made for modifications in the classroom (e.g., preferential seating, having instructions given in writing as well as orally).

Step 6: Communication of Findings and Treatment Recommendations

The clinician explained to the parents that their concerns regarding Julie appeared to be the result of a number of factors. Her auditory processing problems did indeed make it difficult for her to understand and follow through with the more complex tasks in fourth grade. Although she had adequate academic skills, Julie was not performing at the level that would be expected given her abilities, and she was in danger of falling further behind. Thus, her concerns and worries about school performance were based on real problems. She was described as an "exquisitely" lonely child in an adult world. Her lack of contact with friends outside the school setting and engagement in social activities limited her opportunity to develop social skills and have friendships. Furthermore, Julie was described as a child who tended to look at the world, herself, and life in a negative way, and she worried more than other children her age, yet felt there was little she could do about it. Although she was not experiencing clinically significant depression at this time, it appeared that over the past 2–3 years she had generally been unhappy, irritable, and not fully involved in any activities. This pattern of behavior, in combination with the family history of depression, placed her at high risk for MDD in the future.

It was acknowledged that dealing with Julie's behavior had been difficult for the parents. However, they also seemed to be having some problems of their own, with feelings similar to Julie's, which made it even more difficult for them to set appropriate routines and limits for her and to provide social opportunities. It was recommended that Julie receive individual tutoring for her learning/organizational problems, that she have individual treatment to help her learn to cope more effectively, and that she participate in a social skills group. It was also recommended that the parents seek help for their own depressive feelings and their ongoing problems with alcohol and drug use.

Course of Treatment

Julie was seen for eight sessions of CBT with a therapist, with the goal of helping her to understand the relationship among thoughts, feelings, and behavior; to identify and modify her distorted cognitions; and to learn more effective ways of coping with stress. Julie kept a Mood Diary to chart her progress in applying her new skills. Concurrent parent sessions centered around developing structured routines at home, behavior management skills, and age-appropriate expectations for Julie. They were also encouraged to enroll her in at least two afterschool activities that Julie would enjoy, and to invite her friends to their home. At the end of the individual sessions, the CDI-2 was readministered and Julie received an overall score of 9, well within the normal range. Then, Julie joined a social skills group to learn more effective strategies for making and maintaining friends. She thoroughly enjoyed this experience, and both she and her parents reported that she was using these skills to make friends.

The parents did seek treatment for themselves, and both were placed on antidepressant medication. This was somewhat problematic, however, as they continued to consume alcohol (although at a reduced level). Given Julie's risk for MDD, it was agreed that she should have follow-up sessions every 4–6 months, with particular emphasis on times of transition that were likely to be difficult for her. The parents indicated that they planned to continue their own treatment. They both understood that Julie's progress was in large measure dependent on them and their ability to provide the nurturance, structure, and stimulation that a child her age needed.

RESOURCES FOR CLINICIANS

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

King, C. A., Foster, C. E., & Rogalski, K. M. (2013). *Teen suicide risk: A practitioner's guide to screening, assessment and management.* New York: Guilford Press.

Effective Child Therapy Online, Society of Child and Adolescent Psychology, American Psychological Association *www.effectivechildtherapy.fiu.edu*

RESOURCES FOR PARENTS

Faber, A., & Mazlish, E. (2012). *How to talk so kids will listen & listen so kids will talk.* New York: Scribner.

Koocher, G. P., & La Greca, A. M. (2011). *The parents' guide to psychological first aid: Helping children and* *adolescents cope with predictable life crises.* New York: Oxford University Press.

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[1] Since dysthymic disorder was renamed persistent depressive disorder in DSM-5, not as much research is based on this term. However, the criteria are the same, so past research on DD is relevant for PDD.

CHAPTER 9

Attention-Deficit/Hyperactivity Disorder

Attention-deficit/hyperactivity disorder (ADHD; American Psychiatric Association [APA], 2013) is the most commonly diagnosed behavioral disorder of childhood. Despite the dramatic increase in research over the past several decades and the progress made in the assessment, diagnosis, and treatment of children and adults with ADHD, there is still considerable controversy regarding this disorder. Evidence has shown that, for many individuals, ADHD is a severe condition with lifelong personal and societal consequences. However, there are widely varying, inconsistent, and sometimes poor-quality assessment, treatment, and follow-up practices in the "real" world, subsequently leading to both over- and underdiagnosis of ADHD. Moreover, services vary widely between communities, and access to care differs not only by geographic region but also by socioeconomic and ethnic parameters. The fragmentation of care and lack of coordination between the educational and the medical systems also contribute to less effective diagnosis and treatment.

ADHD is a heterogeneous disorder that, for many children, has an onset in early childhood, is pervasive across many areas of functioning, and may persist throughout adolescence and adulthood (Nigg & Barkley, 2014). We begin this chapter with a review of the current diagnostic criteria for ADHD. Next, we discuss its primary symptoms, prevalence, comorbidity, etiology, and developmental course. Finally, we address assessment and treatment of ADHD.

DEFINITION AND CLASSIFICATION

The labels given to the constellation of impulsive, hyperactive, and inattentive behaviors for ADHD have evolved over the years. In the last 30 years, labels have become more behaviorally descriptive, with a greater focus on the areas of attention and impulse control. In addition, DSM diagnostic classifications have become more operational by specifying the type and number of behavioral descriptors, the age of onset, and the duration of the symptoms. Although often frustrating for clinicians and researchers, these changes in labels and criteria for diagnosis reflect our changing understanding of ADHD.

In DSM-5 (APA, 2013), ADHD is listed in the “neurodevelopmental disorders” section with other disorders such as intellectual disabilities (ID), specific learning disorder (SLD), and autism spectrum disorder (ASD), reflecting that ADHD shows strong genetic transmission, develops when children are young, and often persists into adolescence and adulthood. Empirical research and factor analyses have consistently shown a bidimensional conceptualization of the disorder, with an inattention dimension and a combined hyperactivity–impulsivity dimension. These two symptom clusters are thought to be distinct in terms of their etiology, clinical course, correlates, response to treatment, and outcome (Willcutt et al., 2012). The greatest risk of adverse outcomes associated with ADHD is thought to reside in the combined cluster of all the symptoms.

According to DSM-5, the dimensions of inattention and hyperactivity–impulsivity each have a nine-item list of symptoms, and parents and/or teachers must report the presence of at least six of nine problem behaviors from either symptom list for a child to be diagnosed with ADHD. These symptoms must be persistent, with several symptoms displayed prior to age 12, and at a frequency greater than that expected of children of the same mental and chronological age. Furthermore, the behaviors must have cross-setting generality to at least two different settings to demonstrate pervasiveness, and evidence of clinically significant impairment. The behaviors cannot be due to other types of mental health or learning disorders that would better explain their presence. These criteria do not, however, preclude a child from receiving an additional diagnosis, such as oppositional defiant disorder (ODD), conduct disorder (CD), a learning disorder, a depressive disorder, or an anxiety disorder—all of which overlap substantially with ADHD.

The DSM-5 criteria acknowledge individual differences in the ways that children exhibit the various symptoms. Some children may have more difficulty with sustained attention in tasks or play activities, or may be easily distracted; other children may have more difficulty with overactivity, taking turns, or following rules. DSM-5 attempts to decrease the heterogeneity of ADHD with specifiers into three major categories but recognizes that children may move back and forth between different presentations (Willcutt et al., 2012): *ADHD, combined presentation* (ADHD-C); *ADHD, predominantly inattentive presentation* (ADHD-I); and *ADHD, predominantly hyperactive–impulsive presentation* (ADHD-H/I). Another DSM-5 specifier has a primary bearing on the diagnosis of adolescents and adults. *ADHD in partial remission* is used when a person has problems resulting from ADHD symptoms that do not presently meet full criteria but were part of a documented ADHD diagnosis at an earlier point in time. In addition, clinicians should specify the severity of symptoms as mild, moderate, and severe, which suggests the number of symptoms and impairment shown.

A review of the ADHD diagnosis for DSM-5 reported clinically meaningful differences among the ADHD subtypes (Willcutt et al., 2012). Children with inattention symptoms are more likely to show shy and passive social symptoms, impaired adaptive functioning, and difficulties in academic functioning across ages. In addition, children with hyperactive–impulsive symptoms are more likely to be rejected by peers, display relational aggression, and have accidental injuries. Also, children with primarily hyperactive–impulsive symptoms are more likely to be diagnosed with externalizing disorders, while those with inattentive symptoms are more likely to be seen as withdrawn and depressed (Lahey et al., 2004; Willcutt et al., 2012).

More than for any other childhood disorder, DSM-5 criteria for ADHD differ from those in the *International Classification of Diseases,* 10th revision (ICD-10; Centers for Disease Control and Prevention, 2014a), used in Europe and many other parts of the world. Although the ICD-10 diagnosis corresponding to ADHD has some similarities to DSM-5 criteria (duration, and developmental deviance), it also has major differences. ICD-10 has no subtyping, and only one diagnosis, hyperkinetic disorder (HKD). This category requires six of nine inattention symptoms, three of five hyperactivity symptoms, and one of four impulsivity symptoms for a diagnosis. In addition, ICD requires that all criteria be met in at least two settings, and includes exclusionary criteria for anxiety, mood, and developmental disorders. The differences between these two classification systems indicate that fewer individuals are likely to be diagnosed with HKD in the ICD-10 system (Polanczyk, de Lima, Horta, Biederman, & Rohde, 2007). With little or no acknowledgment of the differing diagnostic criteria, the difference in prevalence rates based on DSM-IV versus ICD-10 criteria has been interpreted to mean that ADHD is “overdiagnosed” in the United States. The important point for clinicians is that any comparison between DSM-5 and ICD-10 diagnoses should be limited on the DSM-5 side to ADHD-C. In fact, when adjusting for methodological differences including impairment criteria, diagnostic criteria, and source of information (e.g., parent, teacher, both) in diagnosing, the worldwide prevalence of ADHD/HKD is 5.29%, and geographical differences are not shown between North America and other countries except Africa and the Middle East (Polanczyk et al., 2007).

GENERAL CHARACTERISTICS OF ATTENTION-DEFICIT/HYPERACTIVITY DISORDER

Primary Symptoms

Inattention refers to difficulties sustaining attention or persistence of effort to tasks, particularly those that are tedious, boring, or lengthy. Inattention can be expressed as having trouble attending or responding to tasks or play, and being more disorganized, distracted, and forgetful than others the same age. Trouble with not concentrating, not completing tasks, frequently changing activities, being slower, not returning to a task once interrupted, and increased errors when performing boring tasks are also part of the inattention dimension. Cerebral maturation and experience both play an important role in the development of attention (Rothbart & Posner, 2005).

The *hyperactivity–impulsivity* dimension refers to difficulty controlling inappropriate impulses and inhibiting activity level to meet the demands of a situation. Behaviors along this dimension include more motor activity; less ability to control overflow movements; fidgetiness; trouble stopping an ongoing behavior; talking and interrupting more; trouble resisting immediate temptations and delaying gratification; and responding too quickly and too often when waiting for events to occur, so that more impulsive errors are made. In essence, behavior is less governed by rules. Research supports some differences in activity, impulsivity, and inattention between children with ADHD and those with learning disabilities (Pisecco, Baker, Silva, & Brooke, 2001) or other psychiatric disorders (Willcutt et al., 2012).

Although a great deal of research demonstrates significant group differences between children with ADHD and typical children on measures of attention span, activity level, and impulse control, these constructs should not be seen as unitary (for a review, see Nigg & Barkley, 2014). As Nigg and Barkley point out, there are many different types of inattention, overactivity, and impulsivity, and their expression varies with the individual child and with situational or temporal factors. Task performance is affected by (1) the time of day or fatigue; (2) the complexity of tasks requiring organization strategies; (3) the number of rules or demands for specific behavior versus free play; (4) situations that are highly repetitive, boring, or familiar versus those that are novel or stimulating; (5) the presence or absence of adult supervision during a task; and (6) whether the task's consequences are immediate versus infrequent or delayed. Thus, it is not surprising that children with ADHD show tremendous variability in their level of productivity and the accuracy of their task performance over time and in different situations.

It also should be recognized that several other developmental, medical, and neurological conditions of childhood can result in symptom manifestations consistent with the diagnosis of ADHD. In addition, there are numerous ways to measure these constructs, not all of which show differences between children with ADHD and typical children. Likewise, research has not always demonstrated a distinction between ADHD and other psychiatric disorders on measures of these primary symptoms. Thus, the clinician should be mindful of the complexity that is inherent in the ADHD construct and must remember that it is multidimensional in nature. Moreover, it is important to note that there is no individual diagnostic test for ADHD; rather, the diagnosis must come as a result of a comprehensive clinical evaluation.

Prevalence

Estimates of the prevalence for all subtypes of ADHD in school-age children are about 5% of the population (APA, 2013). Prevalence rates for the three subtypes in a community sample were reported to be 9.9% for inattentive, 2.4% for hyperactive–

impulsive, and 3.6% for combined ADHD (Nolan, Gadow, & Sprafkin, 2001). Visser et al. (2014) reported an increasing prevalence of ADHD from the National Survey of Children's Health from 2003 to 2011 and reported that 11% of children had a history of the diagnosis, with 8.8% currently diagnosed. This increasing prevalence may suggest better detection of ADHD, but it may also be due to the range of mental health professionals who diagnose ADHD (e.g., psychologists, social workers, pediatricians, nurse practitioners) and may use different diagnostic criteria. Collins and Cleary (2016) also noted increasing rates of diagnosis for racial/ethnic groups, particularly for Hispanics. ADHD is also four times more common in boys than girls in the general population, and six to nine times more common among boys in clinic-based samples (APA, 2013).

Comorbidity

Between 44 and 80% of children diagnosed with ADHD also meet diagnostic criteria for other disorders, although these rates vary according to the sample studied and the method of diagnosis (Barbaresi et al., 2013; Larson, Russ, Kahn, & Halfon, 2011). The most frequently observed comorbidity is among ADHD, ODD, and CD. ADHD co-occurs with ODD approximately 40% of the time, and with CD, 27% (Elia, Ambrosini, & Berrettini, 2008; Larson et al., 2011). It is suggested that irritable and defiant behavior originates from difficulties of children with ADHD regulating emotions (Steinberg & Drabick, 2015), and a coercive cycle of negative interactions between children and other adults (Patterson, DeBaryshe, & Ramsey, 1989) leads to a reinforcement of the disruptive behavior. A developmental model proposed by Loeber, Burke, Lahey, Winter, and Zera (2000) suggests that children with ADHD and comorbid ODD are more likely to develop CD, then later antisocial personality disorder (ASPD). Studies have shown negative outcomes for children with ADHD who develop ODD and for those who develop CD and ASPD, with or without comorbid ODD (Barbaresi et al., 2013; Biederman et al., 2008; Harty, Miller, Newcorn, & Halperin, 2009). In addition, the severity of disruptive symptoms influences the stability and increases the problem behavior and impairment over time (see Chapter 10).

Studies of both clinic-referred and community samples reveal that up to 30% of children with ADHD have a mood disorder, with major depression and dysthymic disorder occurring most frequently (August, Realmuto, MacDonald, Nugent, & Crosby, 1996). Secondary anxiety disorders are also reported in 25% of the population with ADHD (Jarrett & Ollendick, 2008). The presence of secondary externalizing disorders increases the risk of developing a mood or anxiety disorder, with rates of depression and anxiety between 30 and 34% for children with ADHD who also have a diagnosis of ODD or CD. In contrast, among children with ADHD without ODD or CD, 3% have a mood disorder, and 6% have an anxiety disorder (August et al., 1996).

In addition to comorbidity with other clinical disorders, ADHD has been associated with sleep problems, academic underachievement, and poor peer relations. Although parents of children with ADHD report significant sleep difficulties, research has provided limited objective verification of these disturbances (Cortese et al., 2013). As many as 70% of children report sleep problems, with the highest prevalence in those with a combined presentation, comorbid disorders, and taking medication (Cortese et al., 2013). A meta-analysis revealed that nonmedicated children with ADHD had greater difficulties going to bed and getting to sleep, more frequently awoke at night, had more difficulties getting up in the morning, and were sleepier during the day than controls (Cortese, Faraone, Konofal, & Lecendreux, 2009). It is possible that the symptoms of ADHD may lead to more problems with sleep and/or that these families have more difficulties developing appropriate sleep hygiene. Given the negative impact that sleep problems can have on the daytime functioning of a child and family (Beebe, 2011), they should be assessed in all children with ADHD and specifically treated if present.

The association between academic underachievement and ADHD has been well documented (DuPaul, Gormely, & Laracy, 2013; DuPaul & Stoner, 2014). Approximately 45% of children with ADHD evidence specific learning disabilities in the areas of reading, writing, and/or math, and up to 53% are described as underachievers (DuPaul et al., 2013; Frick, Kamphaus, Lahey, & Loeber, 1991). Estimates of ADHD in populations with learning disabilities are approximately 44% (Smith & Adams, 2006). Therefore, if a child has a learning disability, he or she is at high risk for being diagnosed with ADHD, and vice versa. Significant problems center around memorizing complex information, especially when organization and deliberate rehearsal strategies are required. In addition, children with ADHD spend significantly less time on tasks compared to typical students (75 vs. 88%), and show differences across environments, with better performance in small-group work than in whole-group instruction and individual seatwork (Kofler, Rapport, & Alderson, 2008). The amount of work produced is also reduced, which may contribute to underachievement (DuPaul & Stoner, 2014). Moreover, with age, the problem is only likely to increase.

Of the various comorbid learning disorders seen in children with ADHD, reading and writing disorders occur most frequently (DuPaul et al., 2013). Language-based disabilities are also common, with difficulties primarily in organization, monitoring, and use of language rather than deficits in speech production, semantics, or syntax (Tannock, 1998). Academic problems appear to occur more often in children with either ADHD-C or ADHD-I than in those with ADHD-H/I. It is worth noting that although children with ADHD may be found across all levels of intelligence, as a group, they tend to score slightly lower on standardized intelligence tests than do normal controls (Frazier, Demaree, & Youngstrom, 2004). Whether the latter finding is due to real differences in intelligence, differences in achievement, or test-taking behavior is not clear. In examining the development of ADHD relative to learning difficulties, one longitudinal study from kindergarten to fifth grade (Rabiner, Coie, & the Conduct Problems Prevention Research Group, 2000) found that attention problems predicted poorer reading achievement even after controlling for prior reading achievement, IQ, and other behavioral difficulties. These results indicate that many children who are inattentive may fail to develop critical reading skills during first grade, then have difficulty catching up to peers after this occurs, with the result that they fall farther and farther behind academically. Thus, it is important not only to identify children with attentional problems but also to ensure that they receive the educational assistance they need to enhance their short- and long-term reading outcomes.

Children with ADHD are at high risk for difficulties in social functioning, and problems with peer relations appear to persist from childhood through adolescence (Hoza, 2007). In fact, approximately 50–80% of children with ADHD are actively rejected by their peer group. This is an important area of study given that peer rejection and social skills deficiencies in childhood have been linked to higher incidences of school maladjustment, delinquency, and later psychopathology (Parker & Asher, 1987). Although all children with ADHD have difficulties, children with ADHD-C appear to have more severe social problems than those with ADHD-I (Gaub & Carlson, 1997). The nature of these social problems was examined by comparing children with ADHD-C, children with ADHD-I, and a control group of children on parent and teacher ratings of social status and performance, self-reports of social knowledge and performance, and observations of behavior on an emotional regulation task (Maedgen & Carlson, 2000). Social functioning in the ADHD subtypes showed distinct differences. Children with ADHD-C were rated as showing more aggressive behavior, and as displaying emotional regulation characterized by high intensity and high levels of both positive and negative behavior. In contrast, children with ADHD-I were described as socially passive, displaying deficits in social knowledge, and evidencing no problems with emotional regulation. The children with ADHD-C appeared to understand the unwritten rules guiding emotional expression and tried to control their responses, but they had difficulty doing this. Although more research is needed to define the exact nature of social issues, it appears that children with ADHD do not have deficits in knowledge of social skills (i.e., knowing what to do when asked), but deficits in performing these skills when needed (e.g., on the playground, during a birthday party).

Etiology

The exact etiology of ADHD is not currently known; genetic and neurobiological theories dominate the thinking in this area, and recent research provides increasing support for these positions. However, because ADHD is a heterogeneous disorder, it is not likely that one pathway will lead to ADHD for all cases. In addition, symptom severity, comorbidity, courses, and outcomes are likely to be influenced by various environmental and family factors. We present a brief summary of different etiologies of ADHD next; the interested reader is referred to Barkley (2015a) for a more in-depth review.

Biological Factors

Although it was initially believed that brain damage is a primary cause for ADHD, research has shown that only about 5% of cases have "hard" evidence of neurological damage (Rutter, 1977). This is currently an active area of research, however, and many studies examine neuroanatomical, neurochemical, and neurophysiological correlates of ADHD. This research demonstrates in children with and without ADHD differences in the frontal lobes, the caudate nucleus within the basal ganglia, the corpus callosum (which connects the two lobes), and related pathways between these two structures (Barkley, 2015a). There is evidence, for example, that the cerebral blood flow is decreased in the prefrontal regions in the brain and in the various pathways connecting these regions to the limbic system, including the caudate nucleus, in children with ADHD (Oner, Oner, Aysev, Kucuk, & Ibis, 2005). Importantly, researchers have demonstrated that these findings are reversed when stimulant medication is administered. Research is now focusing on which anatomical abnormalities have functional sequelae and how these relate to specific ADHD symptoms.

Neurochemical studies have focused on the catecholamines dopamine and norepinephrine. These neurotransmitters are known to affect a variety of behaviors. There is some consensus that catecholamine dysfunction is central to ADHD, and that this dysfunction is related to more than one neurotransmitter system (Luman, Tripp, & Scheres, 2010). How these problems are expressed functionally in terms of subtyping and comorbidity, as well as the specificity of the neurotransmitter, has not yet been determined. Halperin et al. (1997), for example, detected serotonin abnormalities in a population with ADHD, but only when co-occurring aggressive features were present.

Genetic Factors

There is strong empirical evidence from familial studies that genes play an important role in the etiology of ADHD. Children of parents with childhood-onset ADHD are at high risk for meeting diagnostic criteria for ADHD. Faraone, Biederman, Mennin, Gershon, and Tsuang (1996) reported that 84% of adults with ADHD had at least one child with ADHD, and 52% had two or more children with ADHD. Among biological siblings, from 11 to 32% may also have the disorder. Thus, in many families, it is common for more than one child to have ADHD (Faraone & Mick, 2010; Levy, Hay, McStephen, Wood, & Waldman, 1997). An even higher concordance exists for twins, with an average rate of 76% for monozygotic pairs (Faraone et al., 2005). Adoption studies offer further support for a genetic component of ADHD: One study indicated that 6% of adoptive parents of children with ADHD had the disorder, compared to 18% of biological parents, and 3% of the biological parents of control children (Sprich, Biederman, Crawford, Mundy, & Faraone, 2000). Results of a meta-analysis revealed that genetic factors are also important in the etiology of the two dimensions of the disorder (i.e., attention and hyperactivity–impulsivity), as well as in the covariation between them (Nikolas & Burt, 2010).

The evidence for a genetic basis for ADHD from molecular genetic studies is inconsistent, with different genes implicated in the expression of ADHD. This suggests that ADHD is not a unitary construct; rather, it consists of several disorders that have different genetic and nongenetic etiologies (Faraone & Mick, 2010). A dimensional view of the nature of ADHD might explain the apparent genetic heterogeneity of the disorder. Population-based twin studies suggest that the clinical syndrome of ADHD is influenced by the same set of genes affecting the expression of subclinical forms of the disorder. Researchers investigating heritability using 1,938 families with twins and siblings looked at whether a continuum (trait) or categorical (diagnostic) approach was best used to characterize ADHD and whether different cutoff criteria should be applied (Levy et al., 1997). The results suggested that ADHD is best viewed as the extreme of a continuum that varies genetically throughout the population, rather than as a disorder with discrete determinants. Thus, people with many of these genes develop ADHD; people with few of them are asymptomatic; and people in between show some ADHD symptoms but may not meet diagnostic criteria for the disorder (Faraone & Mick, 2010).

Other Biological Influences

Although genetic factors play a significant role in the development of ADHD, approximately 35% of cases may result from *acquired* ADHD, or adverse environmental events, such as pregnancy and birth complications, maternal behaviors during pregnancy, and environmental toxins. Although the findings for many pregnancy and birth complications are mixed, there is convincing evidence that children with very low birthweight (VLBW) are at increased risk for ADHD (Wagner, Schmidt, Lemery-Chalfant, Leavitt, & Goldsmith, 2009). In a review of psychiatric symptoms among children with VLBW when they reached age 12, Botting, Powls, Cooke, and Merlow (1997) found that the main psychiatric risk was ADHD (23%, as compared to 6% in the control children). However, risk for any type of psychiatric disorder was also high (28% for the children with VLBW, compared to 9% of the controls).

Maternal behaviors during pregnancy, such as maternal smoking and alcohol consumption, have also been related to subsequent symptoms of ADHD in children. In particular, the effects of smoking appear to contribute to ADHD symptoms above and beyond the effects of maternal ADHD (Linnet et al., 2003; Thakur et al., 2013). In addition, these children also show a more severe presentation of ADHD, more severe behavior problems, and lower cognitive functioning. However, it is also possible that smoking is related to children being more likely to be born with VLBW, which is then related to ADHD symptoms (Barkley, 2015a). The literature on alcohol consumption is mixed in terms of its relationship to child symptoms, and more research is needed in this area (Linnet et al., 2003).

Other environmental toxins that have been studied postnatally are lead and chemical (e.g., pesticides) exposure. Although elevated blood lead levels, which are potentially harmful to children's intellectual development, have been statistically related to ADHD symptoms, only a small number of children develop these symptoms (Nigg, Nikolas, Knottnerus, Cavanagh, & Friderici, 2010). Primary support is found for increased hyperactivity in approximately 38% of children with high blood lead levels (Binder & Matte, 1993). There is also preliminary evidence of exposure to chemicals, particularly pesticides, and its relationship to symptoms of ADHD such as poorer concentration, working memory, and response time (Polańska, Jurewicz, & Hanke, 2013). A number of environmental variables, including toxic or allergic reactions to food additives (e.g., artificial coloring or dietary sugar) and/or various allergens, have also been proposed as biological causes of ADHD (e.g., Feingold, 1975). There is, however, little or no evidence to support these factors as causes for ADHD (Millichap & Yee, 2012).

Psychological Theories

Recent models of ADHD focus on the cognitive processes underlying the component problems of the disorder. This work has been informed in part by progress in our understanding of the functions of the prefrontal lobes and has led to an appreciation of how this region of the brain regulates specific mental activities, which in turn regulate self-control (Barkley, 2015a). These mental activities (i.e., response inhibition, verbal working memory, nonverbal working memory, internalized emotion–motivation, and reconstitution) are called *executive functions.* One of the executive functions, response inhibition, is an area of major deficit in ADHD (Tannock, 1998).

Nigg and Barkley (2014) discuss a comprehensive theoretical model proposed by Barkley (1998) to account for the multiple symptoms of ADHD, including response inhibition, which is primary. In Barkley's model, *response inhibition* is defined as the capacity to delay a response to an immediate environmental event. Delayed responding is hypothesized to provide the foundation on which executive functioning/self-regulation develops. The model predicts that deficits in response inhibition cause secondary deficits, or *cascading deficits* (e.g., greater errors and variability), in all the other executive functions. These deficits become evident in various psychological and social abilities, such as imitation/vicarious learning, rule-governed behavior, reading comprehension, emotional self-control, and both verbal and nonverbal fluency. This framework has led to research that tests the psychological processes involved with ADHD, and has added self-awareness and emotional regulation as additional developmental executive functions (Nigg & Barkley, 2014).

Psychosocial Factors

There is little empirical evidence to support a purely environmental cause of ADHD. Poor parenting, a chaotic home environment, and poverty have not been found to be "causes" of ADHD, although their impact on the functioning of a child with ADHD can be considerable (Lingineni et al., 2012). Adverse family environmental factors, such as chronic and open conflict, decreased family cohesion, and exposure to maternal psychopathology, are more common among families with ADHD than control families (Wymbs et al., 2008). In addition, negative parenting practices are most often related to ODD and CD; however, Ellis and Nigg (2009) found that inconsistent parenting, particularly from fathers, was uniquely related to ADHD symptoms after controlling for ODD and CD symptoms. Although genetic and neurodevelopmental factors may be primary in the etiology of ADHD, family and social variables are likely to influence the extent to which symptoms are manifested, as well as the disorders that coexist with ADHD. Thus, for any particular child with ADHD, the influence of many factors ultimately determines his or her developmental course and outcome.

Developmental Course

The developmental course of ADHD is characterized by changes in the way the problems are expressed but not necessarily in the severity or extent of problems. A summary of ADHD behaviors most commonly exhibited at different ages is provided in Table 9.1.

TABLE 9.1. Developmental Characteristics of ADHD

Infants and toddlers (0–24 months)	Preschoolers (3–5 years)	Early school age (6–8 years)	Middle school age (9–12 years)	Adolescence (13–18 years)	Young adults
• Difficult temperament • Overactivity • Intensity of emotional expression • Negative mood • Poor physiological regulation	• Behavior problems • Overactivity • Impulsivity • Noncompliance • Aggression • Accidental poisoning • Accidental injury • Delayed toilet training • Preschool/day care problems • Lack of persistence • Oppositional behavior • Problems with group activities • Appears immature	• Behavior problems • Restless • Noncompliant • Conduct problems • Attentional problems • Short attention span • Off task • Poor listening • Does not follow directions • Peer problems • Requires close supervision	• School problems • Underachievement (18–53%) • High error rates • Failure to complete assignments • Learning disabilities: reading and language-based (25%) • Disruptive behaviors • Poor social skills • Poor self-control • Poor athletic skills • Peer problems • Home problems • Irresponsible • Forgetful • Stealing, lying, property destruction • Conduct disorder (25%) • Oppositional defiant • Mood disorders (30%)	• Attentional problems • Poor school performance • Failure to remember assignments • Failure to complete assignments • Underachievement • Conduct problems with aggression • Rebelliousness • Defiance of authority • Violation of family rules • Immature and/or irresponsible behavior • Car accidents • Drug use • Delinquency • Low self-esteem • Depression • Poor social relations disorder (>60%) • Anxiety disorders (34%)	• Behavior problems (30–60%) • Restlessness • Inattention • Impulsivity • Emotional problems • Low self-esteem • Feelings of sadness • Depression • Risk of suicide • Marital/couple problems • Car accidents • Poor work record • Substance abuse (38%) • Alcohol abuse (27%) • Interpersonal problems (75%) • Antisocial personality disorder (23–45%)

Note. Data from DuPaul et al. (2016) and Nigg and Barkley (2014).

Infancy

The precursors of ADHD are found in infancy, as reflected in the characteristics of a difficult temperament (e.g., overactivity, intensity of emotional expression, predominantly negative mood, poor physiological regulation). Although not all children with ADHD have a history of difficult temperament in infancy, and not all children exhibiting these temperament characteristics develop ADHD, behaviors associated with a difficult temperament put these children at greater risk for ADHD than children who are more easygoing (Gurevitz, Geva, Varon, & Leitner, 2014).

Preschool

The average age of onset of ADHD symptoms is 3 years of age, and over half of all children with ADHD exhibit behavior problems by this age (Nigg & Barkley, 2014). Moreover, all three subtypes of ADHD have been diagnosed in the preschool years, but hyperactive–impulsive symptoms are more common at younger ages (Lahey et al., 1998). Lahey and colleagues found that preschool children with ADHD-C were not only less popular with classmates but also more actively disliked by their peers; they, as well as children with ADHD-H/I, were also more disruptive and less self-controlled than control children. Preschool children in all three ADHD subtypes were more likely to be receiving special education services for learning or behavior problems. Furthermore, even when symptoms of disruptive behavior were controlled, a number of internalizing problems were significantly related to underachievement in reading and mathematics (Lahey et al., 1998). This important finding speaks to the emotional impact of academic problems on children at an early age.

Parents and other adults across settings rate preschool children with ADHD as more stressful to manage, less reinforcing, more demanding, less adaptable to change, and less compatible with them (Byrne, DeWolfe, & Bawden, 1998; Egger, Kondo, & Angold, 2006). In addition, a review of studies found that preschool children with ADHD were more likely to have been suspended from school or day care (more than 40% compared to 0.5% of children without ADHD!), and approximately 16% had been expelled (Egger et al., 2006).

School Age

Symptoms related to inattention emerge at about age 5–7 years or when children enter school (Nigg & Barkley, 2014). The relatively high diagnosis rate during the early school years probably reflects the fact that the school setting is more demanding, less flexible, and less likely to accommodate individual differences than the home environment. At this age, a lack of age-appropriate social skills is noted, along with increased peer relationship problems. Between 40 and 70% of the children with ADHD also develop oppositional and/or aggressive behaviors (Loeber et al., 2000). Given children’s lack of ability to follow socially appropriate rules and their problems with completing tasks, the need for constant supervision is often reported by parents during this period. Parental stress or depression also may emerge or increase at this time (Murphy & Barkley, 1996).

At home, children with ADHD in the middle school years are unable to take responsibility for routine chores, need a great deal of monitoring, and their parents tend to be overly directive and negative. If there is a prior history of noncompliance and aggression, the risk for conduct problems in the community is high. At school, these children are likely to exhibit specific learning problems, and many are labeled "underachievers." Peer problems also increase during the middle school years; children with ADHD display problems with turn taking, interrupting conversations, and prematurely quitting activities due to boredom (Hoza, 2007). These behaviors tend to alienate existing friends, as well as new acquaintances, and may lead to social rejection or avoidance.

Adolescence and Young Adulthood

Longitudinal studies indicate that ADHD persists into at least midadolescence for 50–80% of children diagnosed during childhood (Barkley, Fischer, Edelbrock, & Smallish, 1990; Lee, Lahey, Owens, & Hinshaw, 2008), and that about 30% will continue to meet diagnostic criteria for ADHD into adulthood (Barbaresi et al., 2013; Klein et al., 2012). Other children who are diagnosed with ADHD in childhood continue to exhibit subclinical levels of symptoms that interfere with daily functioning, even when they no longer meet criteria for a full diagnosis (Fischer, 1997; Weiss & Hechtman, 1993). These studies also provide some insight into the basis for the decline of ADHD with age. Results of these studies indicate that the frequency of parent- and teacher-reported hyperactivity–impulsivity symptoms declines with age, especially during late childhood and early adolescence, whereas the reduction in frequency of inattention symptoms is only slight (DuPaul et al., 2016; Martel, von Eye, & Nigg, 2012). Thus, it is not surprising that the majority of the youngest children are diagnosed with ADHD-H/I, followed by ADHD-C and, as children get older, ADHD-I (Nolan et al., 2001).

Nigg and Barkley (2014) note that several factors can influence the outcome of a child with ADHD in adolescence. Children *without* associated significant aggression, comorbid mood disorders, family adversity, or peer relationship problems are likely to have problems primarily in school performance. These children may have a higher chance of remission of their ADHD by adolescence (Biederman et al., 1996). On the other hand, most children who have a diagnosis of ADHD in adolescence are very likely to display extreme forms of defiance and noncompliance with rules (warranting a secondary ODD diagnosis), and are also more likely to engage in theft and other behaviors consistent with CD (Barkley, Fischer, Smallish, & Fletcher, 2004). The risk for internalizing problems is even greater for adolescents with ADHD who require special education services, which are used by an increasing number of them (DuPaul & Stoner, 2014). Furthermore, there is greater risk for school suspension. Approximately 30% of adolescents with ADHD fail to complete high school, and of those who graduate, most do not go on to college (Barkley, Fischer, Smallish, & Fletcher, 2006).

In addition to academic and social problems, adolescents with ADHD are likely to have more frequent and intense conflicts with parents, and their families are at greater risk for stress and marital/couple problems, especially if the adolescent presents with features of comorbid ODD (Wymbs et al., 2008). Adolescents also report having more psychoactive substance use disorders (Barkley et al., 2004).

Although young adults with ADHD may make a better adjustment to their employment than they did to school, many continue to have problems that interfere with their functioning. A significant number of adults with ADHD engage in more severe antisocial activities and are more likely to be incarcerated, abuse substances, and have significant interpersonal problems, and they are more likely to be divorced (Barkley et al., 2004; Klein et al., 2012).

Summary

In summary, ADHD places children at risk for a multitude of psychosocial difficulties across the lifespan. It also increases the risk of secondary or comorbid diagnoses, especially ODD and CD. Exhibiting disruptive behavior from an early age appears to be a major predictor for continuing problems. When comorbid conditions exist, the overall severity of psychosocial impairment is greater, resulting in a far less favorable prognosis. Age has a significant impact on the prevalence of ADHD. In some cases, there is significant improvement as children mature, with symptom reduction primarily in the dimension of hyperactivity–impulsivity versus the inattention dimension. For other children, problem severity increases with age, as early difficulties create later disadvantages that have cumulative consequences for learning, social relations, and self-esteem (Klein et al., 2012). The clinician must also take into account the ongoing impact of interaction between the child and his or her environment. Just as with other childhood disorders, parenting strategies, parental psychopathology, family dysfunction, and socioeconomic disadvantage all play a role in the final outcome.

ASSESSMENT OF ATTENTION-DEFICIT/HYPERACTIVITY DISORDER

The assessment of ADHD must take into account many factors: (1) the child's age and the part that development plays in the expression of the primary symptoms; (2) the pervasiveness of the symptoms; (3) situational variability; (4) potential comorbid disorders; (5) family and environmental factors; and (6) the impact of behavioral symptoms on the child's functioning, as well as on others in the home and at school. Thus, assessment requires a variety of methods, including interviews with the parents, child, and teacher, and information from other pertinent informants; the use of both broadband and narrowband parent and teacher standardized child behavior rating scales and checklists, as well as parent self-report measures; direct observation of the child in natural and analogue situations; and clinic-based psychological tests. The importance of getting information from different informants, particularly the parents and teacher(s), cannot be overemphasized (Rowland et al., 2008). Without input from teachers, children with ADHD are likely to be underidentified, and/or accurate identification and monitoring of target symptoms are less likely to occur.

The assessment of ADHD, like the assessment of all childhood problems and disorders, should not be limited to determining a diagnosis. More importantly, the assessment process should determine the specific nature of the problem(s) for an individual child, his or her strengths and weaknesses, the risk factors for significant and persistent impairment in functioning, the determination of comorbid conditions, the child's eligibility for services, and possible intervention strategies. This discussion follows the steps for gathering information according to the Comprehensive Assessment-to-Intervention System (CAIS; see Chapter 2), focusing on ADHD.

Step 1: Initial Contact

At the time of the initial referral, parents should be asked to complete a general questionnaire (e.g., our General Parent Questionnaire; see Appendix B) giving demographic, developmental, and medical information, as well as their perception of the child's problem. It is helpful to have the parents complete several standardized norm-referenced behavior checklists and rating scales prior to the initial interview, but the number of questionnaires sent out at this time or completed in the clinic before the interview should be determined by the family circumstances (see Appendix A for descriptions). Parents of children with ADHD are often likely to have their own attentional problems, and initially overwhelming them with checklists and rating scales may be counterproductive. It is important, however, to complete a standardized broadband questionnaire such as the Child Behavior Checklist (CBCL; Achenbach, 2013; Achenbach & Rescorla, 2001a, 2001b) or the Behavior Assessment System for Children, Third Edition (BASC-3; Reynolds & Kamphaus, 2015), prior to the initial interview, since these measures assess a range of problem behaviors.

It is helpful for parents to complete more specific scales related to ADHD symptoms before the interview, such as the ADHD Rating Scale–5 (DuPaul, Power, Anastopoulos, & Reid, 2016) or Conners 3rd Edition (Conners, 2008). The Eyberg Child Behavior Inventory (ECBI; Eyberg & Pincus, 1999) may also be used as a measure of attentional problems, conduct issues, and oppositional defiant behaviors. Furthermore, having parents keep a daily record of the child's behaviors (e.g., our Daily Log; see Chapter 2 and Appendix B) can help the clinician determine what the child is actually doing (in contrast to what the parents *think* he or she is doing), and provides preliminary information about the frequency and intensity of the problem behaviors. It also provides a baseline against which to measure changes with treatment.

Step 2: Initial Intake Interview

In our experience, a child with possible ADHD is usually included in the first interview with the parents. This enables the clinician to observe the parent–child interaction, in addition to ensuring that everyone hears the same information. We have found that children with ADHD have a good idea of their problems and often offer their own opinions about the topics the parents bring up. If parents are uncomfortable with the child's presence or the child's behavior is likely to be too disruptive, a time is scheduled to interview the parents without the child, and the child is seen separately at a later date. The interview with the child, however, begins with the parents present, and both positive qualities and difficulties are discussed.

Parent Interview

It is important to have both parents attend the initial interview, if at all possible. A child with ADHD often behaves differently with each parent, and these differences (as well as inconsistent handling of the child) are important issues for the treatment process. Having both parents present also increases the chances that both parents participate in treatment, even if they are separated or divorced. We prefer a semistructured interview that follows the CAIS format and includes specific questions about the child's development and behavior. The following areas should be assessed:

1. *Behavior*. ADHD symptoms and subsequent impairment are usually chronic, so it is important to determine what prompted the referral at this particular time, and what the parents think caused the problem. This informs the clinician regarding the parents' perceptions of the child's problems, current family circumstances related to the problem's severity, and the parents' motivation for treatment. A general description of the behavior problems should be followed by specific questions that help define the problems and their functional relationships. For children with ADHD, not only onset and its persistence but also the situational and temporal variations in the behavior and its consequences are key to understanding the issues.

2. *Developmental history*. The clinician should focus on the child's early development, particularly with regard to temperamental characteristics as they were manifested during infancy and early childhood, and to issues of control and independence. Early problems in the developmental domains of motor, language, cognitive, academic, emotional, and social functioning could be indicators of another disorder, such as autism spectrum disorder, intellectual disability, a learning disability, or an anxiety disorder.

3. *Differential diagnosis and comorbidity*. Given the high rate of comorbidity in

ADHD, it is important to review in a systematic way with the parents the symptom lists and other diagnostic criteria for various childhood disorders. The CBCL or BASC-3 is helpful in determining specific areas for further follow-up.

The process of diagnosing ADHD and differentiating it from other childhood disorders is an essential task that involves establishing the onset, course, and duration of symptoms, then qualifying and quantifying the symptom picture. The typical age that symptoms develop for children with ADHD is approximately 3 years. This early age of onset usually differentiates it from other childhood clinical disorders, which typically are first diagnosed in older children. One must take into account, however, that this age corresponds to retrospective parental reports of early problem behaviors and not with the age of initial referral, which is typically 6 to 7 years.

4. *Medical history*. Several medical problems, such as allergies, visual or hearing problems, lead poisoning, complex absence and partial seizures, central nervous system trauma, and hyperthyroidism, can contribute to ADHD-related behaviors. A careful medical history should be taken, including any prior or current treatment for medical problems. A history of tics for the child or biological family members should be determined given that it might indicate the presence of Tourette's disorder or suggest caution regarding the use of stimulant medication. Number and type of accidental injuries are also important to note, particularly if they involve a closed head injury (CHI). Research with children who have a moderate to severe CHI indicates that a significant number had a premorbid diagnosis of ADHD (20%); 19% of the remaining children presented with the full ADHD criteria (except for age of onset) by the end of the first postinjury year (Gerring et al., 1998).

5. *Parent–child interactions*. The nature of ADHD indicates that children will have problems complying with certain types of commands, directions, and assigned tasks. The problems usually include failure to finish assigned tasks or activities, particularly when they are boring, effortful, or have no immediate consequences. Given that up to 60% of children with ADHD have a repertoire of oppositional, defiant, or coercive behavior, it is important to question parents about the child's ability to comply with commands and requests in a satisfactory manner in various settings; to adhere to rules of conduct governing behavior in a variety of settings; and to demonstrate self-control or rule-following behavior appropriate to the child's age and in the absence of adult supervision. Barkley (2015b) has developed a semistructured interview format (Table 9.2) in which parents are questioned about their interactions with their child in a variety of home and public situations. If there is a problem in a particular situation, the clinician follows up with specific questions regarding the interactions that occur. This interview provides information on the type of noncompliance and aversive behaviors exhibited by the child, as well as the management style(s) typically used by the parents. If time is limited, the Home Situations Questionnaire (HSQ; which covers many of the same behaviors as the interview format) can be completed by the parents, and one or

two of the situations can then be chosen for the follow-up questions. Another way of gathering information about parent–child interaction is to ask the parents to describe in detail their typical daily routines (see Chapter 10). A focus on these behaviors can highlight differences between parental management styles or indicate that one parent has more difficulty in managing problem behaviors than the other. The routine of daily life and its impact on the child's behavior can also be assessed with this method.

TABLE 9.2. **Parent Interview Format**

Situation to be discussed with parents	If a problem, follow-up questions to ask
Overall parent–child interactions	1. Is this a problem area? If so, then proceed with questions 2–9.
Playing alone	2. What does the child do in this situation that bothers you?
Playing with other children	3. What is your response likely to be?
Mealtimes	4. What will the child do in response to you?
Getting dressed/undressed	5. If the problem continues, what will you do next?
Washing and bathing	6. What is usually the outcome of this interaction?
While parent is on telephone	7. How often do these problems occur in this situation?
Child is watching television	8. How do you feel about these problems?
When visitors are in your home	9. On a scale of 1 (no problem) to 9 (severe), how severe is this problem to you?
When you are visiting someone else's home	
In public places (stores, restaurants, church, etc.)	
When father is in the home	
When child is asked to do chores	
When child is asked to do school homework	
At bedtime	
When child is riding in the car	
When child is left with a baby-sitter	
Any problem situations	

Note. Adapted from an interview used by Constance Hanf of the University of Oregon Health Sciences Center. From Barkley (2015b). Reprinted with permission from The Guilford Press.

6. *Parent and family characteristics.* High levels of parenting stress, marital/couple discord, and psychopathology exist among parents of children with ADHD. These problems in turn influence the frequency and severity of behavioral problems in children with ADHD (Lingineni et al., 2012). Screening for these problems is important, and parent self-report measures may be used for this purpose, either before or after the initial interview. A scale that we have found useful is the Parenting Stress Index, Fourth Edition (PSI-4; Abidin, 2012) for parents of children under the age of 12 years and the Stress Index for Parents of Adolescents (SIPA; Sheras, Abidin, & Konold, 1998) for parents of children over 12, which provide information about the marital/couple

relationship, parental depression, child temperament, and life stress.

Given the increased likelihood that parents and/or siblings also exhibit ADHD-related behaviors, it is important to get information on family history of symptoms, including siblings, parents, and other family members. If there is a suspicion that a parent or a sibling may have ADHD, it is important to refer for further evaluation. Many parents who have experienced problems similar to their child's problems minimize the child's behavior problems (e.g., "I was just like that as a kid, and I'm now doing OK"). Other parents with ADHD may complain that they are unusually sensitive or reactive to ADHD symptoms in their children. ADHD in parents can have a significant impact on the family functioning (e.g., difficulty with child supervision, overreacting to child noncompliance, trouble with organizational tasks); it can also influence the treatment of the child (e.g., high dropout rates, problems with group parent training programs, consistency; Weiss, Hechtman, & Weiss, 2000).

Child Interview

The child's presence during the interview with the parents provides an early opportunity to observe the child's behavior and to assess his or her perceptions of the problem versus the parents' perceptions. Age-appropriate toys can be made available, and the clinician can informally assess the child's attention span and ability to play alone; the parents' management skills can also be noted. It is important to remember, however, that a child who exhibits nonproblematic behavior in the clinic (a new situation with novel toys) may still exhibit different behavior in other situations, such as the school or home; therefore, reports by teachers and parents should be given greater weight than clinic observations.

A period of time alone with the child following the interview with the parents gives the clinician the opportunity to assess the child's behavior with a novel adult and, depending on the age of the child, to determine more closely the child's perceptions of the problem and his or her family. With a preschool child, this may be a time to become further acquainted, and to observe his or her behavior and developmental characteristics. With an older child, this session may include further inquiry about the child's understanding of the reasons for the referral and evaluation, perceptions of the family's functioning, additional problems the child feels he or she may have, school performance, degree of acceptance by peers and classmates, and possible changes in the family or school setting that might make life happier for the child. The child can also be asked about potential rewards and reinforcers for later use in contingency management programs. It is important to remember, however, that children below age 9 years are less reliable in their reports of their own problems or those of their family members. This is further compounded by the frequently diminished self-awareness and impulse control typical of children with ADHD (Wiener et al., 2012). They may reflect very little on the clinician's questions and lie or distort information to appear more socially pleasing (e.g., they have many friends, are doing well in school, and have no problems interacting with parents), although this may be in direct contrast to what their parents or teachers have reported. In general, children with ADHD tend to underreport the seriousness of their disruptive behaviors (Wiener et al., 2012).

Step 3: Observation of Behavior

Direct observation of the child can provide valuable information about his or her interactions with parents, teachers, and peers. A number of behavioral observation and recording systems specific to ADHD have been developed, but most of these have been used primarily for research purposes, and the training required to implement them discourages their general use. The CBCL and the BASC-3 also have direct observation forms for the classroom (see Chapter 2). Although there is limited research on these forms of observation, they are easy to learn and to use, and provide useful clinical information about the child and his or her immediate peer group. We describe in Chapter 10 the parent–child interaction observation method we have used.

Although it can be helpful to perform behavioral observations in the child's natural environment, it may not always be feasible. Roberts (1990) described methods for a clinic analogue setting that can be used as a model. Two situations lasting 15 minutes each are used in the clinic playroom: Free Play and Restricted Academic Period. In the Free Play situation, the child is in the room alone and told to play freely with the toys. In the Restricted Academic Period situation, the child is requested to remain seated, to complete a series of worksheets (a task similar to the Coding subtest of the Wechsler Intelligence Scale for Children, Fourth Edition [WISC-IV]), and not to play with any of the toys in the room. Throughout the two 15-minute periods, observers record behavioral categories: out-of-seat behavior, fidgeting, vocalization, on-task behavior, and attention shifts. Time spent touching forbidden toys and the number of worksheet items completed can also be recorded during the Restricted Academic Period. Other systems can be adapted to the home or school setting, such as the Individualized Target Behavior Evaluation (ITBE), which uses frequency counts of specified behaviors (e.g., interrupts during dinner, hitting other children during recess) in order to set a baseline for behaviors to target in treatment (Pelham et al., 2005).

Step 4: Further Assessment

An interview with the teacher is very important when there is a question of ADHD, and permission to contact the child's teacher should be obtained during the initial contact with parents. A general school questionnaire (see our Teacher Questionnaire, Appendix

B), as well as both a broadband rating scale (the teacher form of the BASC-3 or CBCL) and specific ADHD rating scales, should be sent to the teacher to complete and return prior to the initial parent interview. Teacher rating scales that are more specific to ADHD-related behaviors include the Conners 3rd Edition Teacher Rating Scale (Conners 3-T; Conners, 2008); and the ADHD Rating Scale–5 (teacher report; DuPaul et al., 2016). These questionnaires take a relatively short time to complete, and their importance should be emphasized in the initial phone contact with the teacher.

A school visit allows the clinician to interview the teacher and assess the school environment. If such a visit is not possible, then a phone interview should be substituted. A behavioral format should be used for the teacher interview, with the focus on specific problems in the school environment (including the nature of each behavior, settings, frequency, antecedent or eliciting events, and consequences of the behavior). Follow-up questions derived from the teacher rating scales can be used to guide this part of the interview. The follow-up questions used to guide the parent interview can also be useful in the teacher interview. It is also important to ask about the possibility of a specific learning disability. Likewise, questions regarding defiant behavior, conduct problems, and peer problems should be asked and followed up as needed. Finally, the teacher should be asked for his or her perception of the problems, as well as any ideas regarding what needs to be done for the child.

Deficits in social skills can be further evaluated with the Social Skills Improvement System (SSIS; Gresham & Elliot, 2008; Appendix A) rating scales, which have forms for teacher, parent, and child at the preschool, elementary, and secondary levels, and measures a variety of social skills across settings. The teacher form of the SSIS also includes a rating of academic competence. Furthermore, the SSIS offers an integrated method of interpretation and intervention planning. Parents should be asked about the major areas of social functioning, including school, spare-time activities, peer relations, and home life.

Given the high rate of academic underachievement and learning disabilities in children with ADHD, school records should be reviewed to see whether an assessment of intellectual and achievement testing is necessary, followed up with tests specific to problematic areas (e.g., math, reading). This assessment indicates not only a child's general level of cognitive functioning but also the specific and overall patterns of strengths and weaknesses that may be related to classroom functioning. An evaluation can also help to determine a child's eligibility for special services.

Given the strong association between the diagnosis of ADHD and attentional–executive deficits, neuropsychological tests are often thought to be useful in the assessment of children with ADHD. Although there are documented group differences between boys with and without ADHD on some neuropsychological tests (Seidman, Biederman, Faraone, Weber, & Ouellette, 1997), evidence indicates that these tests have limited predictive utility for classifying individual cases with ADHD (Doyle, Biederman, Seidman, Weber, & Faraone, 2000; Rapport, Chung, Shore, Denney, & Isaacs, 2000). For example, Doyle et al. (2000) assessed domains of functioning thought to be indirect indices of frontostriatal systems and therefore important in ADHD. The measures used to test these domains were well-known clinical instruments (e.g., the Wisconsin Card Sorting Test, the Stroop Color–Word Test, the Auditory Continuous Performance Test). Although the children with ADHD showed variable deficits on the neuropsychological tests of attention and executive functioning, neither single nor multiple tests used together were able to discriminate effectively between the children with ADHD and the controls, whether on medication or not. In addition, Reinecke, Beebe, and Stein (1999) found the Freedom from Distractibility (FFD) factor on the Wechsler Intelligence Scale for Children, Third Edition (WISC-III) to be an unreliable and invalid measure of attention for 200 children with ADHD (ages 6–11 years). Low scores on the FFD seemed to be more closely associated with the presence of a learning disability or poor academic performance than with ADHD. Thus, although neuropsychological tests, including continuous performance tests, can be useful in documenting the strengths and weaknesses of a particular child, they have limited utility for diagnosis of ADHD. Given the time requirements and costs of these tests, the routine use of these tests is not warranted at this time (Barkley, 2015b).

Given that parents of children with ADHD have an increased probability of having ADHD or other psychiatric conditions, as well as marital/couple problems, screening and/or further evaluation for these difficulties may be needed. Instruments for this purpose include the Dyadic Adjustment Scale (DAS; Spanier, 1976) and the Beck Depression Inventory–II (BDI-II; Beck, Steer, & Brown, 1996) (see Appendix A for descriptions of both). If parental or family problems exist, their severity and the extent to which they are likely to interfere with the child's treatment should be assessed. A referral for treatment of such problems should be made, if necessary.

Step 5: Collaboration with Other Health Care Professionals

It is important to determine that the child is in good health or does not have a problem that would exacerbate the symptoms of ADHD or decrease the effectiveness of treatment, so contact with the child's physician is necessary. In particular, the clinician should speak to the pediatrician if there is a possible medical issue, such as visual or hearing problems, lead poisoning, seizures, tics, or hyperthyroidism, that may be causing the symptoms of ADHD. The role of the pediatrician in the diagnosis of ADHD has received considerable attention, and there are concerns that stimulant medication is often prescribed without a comprehensive assessment of the disorder or possible comorbidity. However, pediatricians often feel more comfortable treating ADHD than other psychiatric disorders and feel that there are barriers to referrals for mental health assessment and treatment, such as long waiting periods, family failure to follow through on referrals, and financial issues such as insurance reimbursement issues (Heneghan et al., 2008). Pediatricians and family practitioners can play a key role in the successful treatment of children with ADHD, and it is important to establish good relationships with them. These professionals receive the most frequent queries about ADHD and are therefore in the best position to make appropriate referrals for further assessment and/or treatment.

Step 6: Communication of Findings and Treatment Recommendations

The clinician's understanding of the nature, etiology, and severity of the child's problems with attention, impulsivity, and overactivity, as well as potential treatment approaches, should be discussed with the parents (and with the child at his or her level of understanding). Providing parents and the child with a clear understanding of these issues, as well as how the ADHD behaviors fit into the child's development, will help the family members trust the clinician and maximize the possibility of their cooperating with treatment. The need for continued or periodic treatment and monitoring of the child's progress over the course of development should be stressed, because ADHD-related problems can affect many important areas of the child's life and rarely dissipate after an initial course of treatment. This is particularly true for children with ADHD-C and those who have comorbid conditions, especially ODD and CD. If parental or environmental characteristics that can exacerbate the problems are present, these should be carefully explained and recommendations for specific assistance in those areas offered.

TREATMENT OF ATTENTION-DEFICIT/HYPERACTIVITY DISORDER

Like the assessment process, treatment of ADHD requires a multimethod and cross-situational approach that takes into account the individual child and family strengths and weaknesses. The focus of treatment is based on the areas of deficit or impairment that are most salient, the specific concerns of the referral source(s), and those areas that are most important for the child's current and future adjustment. Comorbid conditions must also be taken into account when planning and carrying out treatment. A child with ADHD who also presents with an anxiety disorder is a very different child to treat than one who has comorbid CD or a specific learning disability. Similarly, a family in which a parent has ADHD or depression may require a different approach than that for a well-functioning family.

The child's development is another important factor in planning for treatment, with a focus not only on current problems but also on areas of weakness that, without intervention, could lead to later problems. Moreover, given the cross-situational nature of ADHD difficulties, the clinician must usually plan for and coordinate intervention in a number of settings. Finally, regardless of the initial recommendations, treatment involves ongoing monitoring of the child's behavior to determine effectiveness of treatment, maintenance of therapeutic gains, plans for generalization of treatment effects to other problems and situations, and changes as needed over the course of development.

Although there are many psychosocial treatments that have been developed to address symptoms and impairment associated with ADHD, only a few have obtained well-established empirical support (Evans, Owens, & Bunford, 2014; Fabiano et al., 2009; Pelham & Fabiano, 2008). These include behavioral interventions such as parent training, parental and classroom applications of contingency management techniques, and behavioral peer interventions in the context of an intensive summer program. In addition, one *training intervention*, or skills training with the child, has been shown to be well-established, building organizational skills (Evans et al., 2014). Anastopoulos and Shaffer (2001) point out, however, that none of these treatment approaches should be viewed as curative. Rather, their value lies in the reduction of ADHD-related symptoms and the improvement of related behavioral and emotional problems. When treatments are discontinued, the problem behaviors often return to pretreatment levels. Thus, to be effective in changing or ameliorating the potential negative developmental course of ADHD, treatment may need to be maintained over a long period of time.

In the next sections we briefly cover effective treatments following the framework provided by the CAIS, including intervention with the child and parents, intervention in the classroom environment, changing the consequences of the child's behavior (which can be done by both parents and teachers), and medical/health intervention.

Intervention with the Child

Cognitive-behavioral therapy (CBT) approaches that emphasize self-regulation training, such as self-monitoring, self-reinforcement, and self-instructional techniques, appear to have value for children with ADHD, since they focus on the primary deficits of ADHD (impulsivity, poor organizational skills, and difficulties with rules and regulations). They may also enhance treatment generalization beyond what would be expected of contingency management programs and eliminate the need for external control or reinforcement by the parent or teacher as the child gets older. Although there may be some potential for these methods, outcome data have been mixed (Pelham & Fabiano, 2008; Reid, Trout, & Schartz, 2005). For the most part, children with ADHD need ongoing prompting and reinforcement, and improved behavior in one setting seldom generalizes to other settings.

Therefore, individual interventions with children have not been shown to be effective alone (without other environmental behavioral interventions) in changing symptoms or outcomes of ADHD. Similar findings have been shown for cognitive training of executive functioning skills, neurofeedback training, and clinic-based social skills training (Evans et al., 2014; Pelham & Fabiano, 2008). There are several reasons that may account for these mixed findings, including children often not being aware of their symptoms and the effect on others, difficulties in generalizing skills outside of therapy, and the possibility that these children may not have actual skills deficits in these areas but are unable to apply them to their natural settings (e.g., a child with ADHD knows what to do in a social situation but is unable to do it because of impulsive symptoms). For example, social skills training is improved if parents are used as *friendship coaches* who facilitate child-appropriate behaviors during playdates, correct inappropriate behavior, and lessen their own criticism towards their child (Mikami, Lerner, Giggs, McGrath, & Calhoun, 2010). One training intervention that has shown effectiveness is organizational skills training (OST), teaching children ways to organize their school materials (Evans et al., 2014). This intervention involves 16–20 sessions in which children are taught to organize materials, track assignments, and schedule and monitor homework, with rewards built in for completion. Organization training has shown improved parent and teacher ratings of organization, academic functioning, and reduced parent–child conflict.

Intervention with the Parents/Changing the Consequences of the Behavior

Parent Training

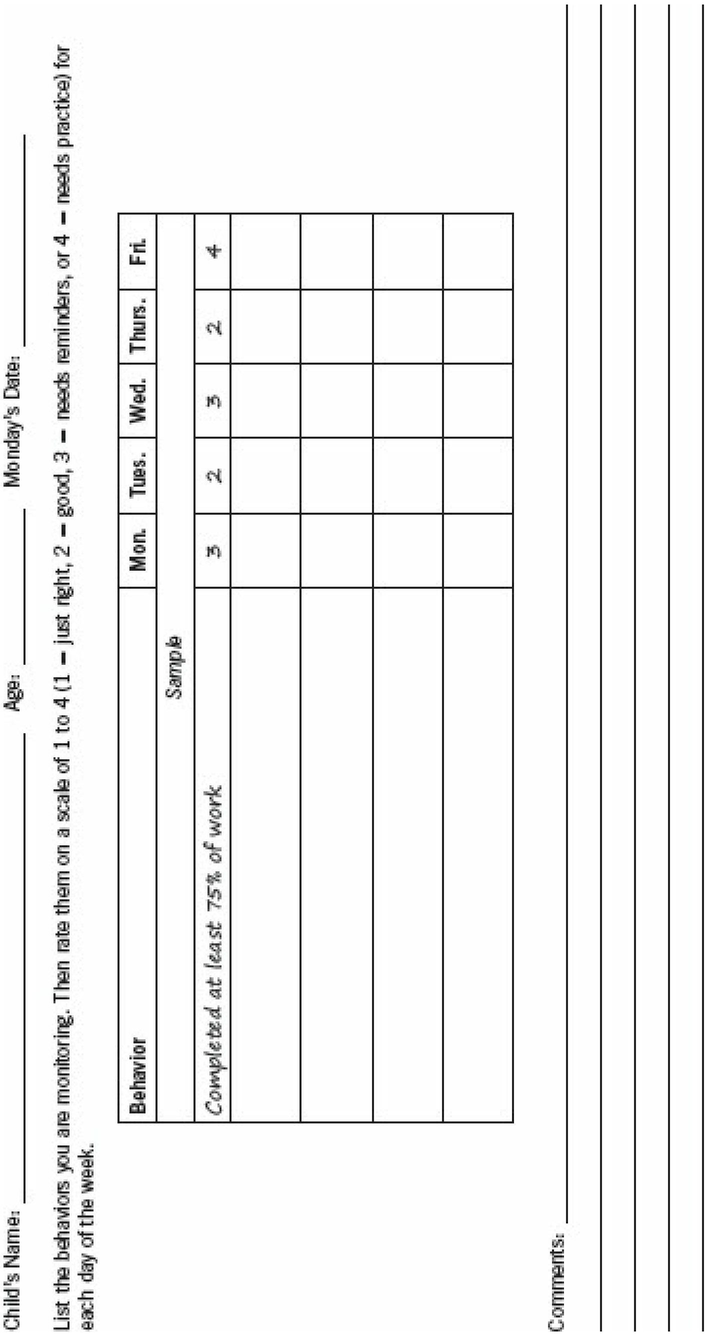
Parent training programs for other disruptive behaviors use the same principles as those used for ADHD (Coates, Taylor, & Sayal, 2015; Forehand et al., 2016). Parent training has been shown to be effective for preschoolers with symptoms of ADHD (Forehand et al., 2016). The parent training program we recommend is described in detail in Chapter 10. Modification of parent training programs to improve parent–child interactions in families with ADHD include adding sessions to provide psychoeducation about ADHD (Montoya, Colom, & Ferrin, 2011), establishing home token reinforcement systems, and teaching parents how to deal with behavior in public places (Chacko et al., 2015). These programs are designed primarily for children ages 2–11 years, and are best used with children who have noncompliant, defiant, and oppositional behaviors at home, in addition to the primary ADHD symptoms. They do require a certain degree of parental motivation given that the skills learned in the clinic must be practiced and implemented in the home on a fairly consistent basis if changes are to be seen in the child’s behavior. Parental psychopathology may also interfere with the implementation of behavioral programs and might best be addressed prior to the beginning of parent training.

Behavioral Interventions

Children with ADHD have difficulty regulating and maintaining their behavior relative to consequences, which in turn increase their problems with inhibiting, initiating, or sustaining responses to tasks or stimuli; they also have difficulty adhering to rules or instructions, particularly when consequences for such behaviors are delayed, weak, or nonexistent (Chacko et al., 2015). Given these difficulties, the use of techniques that exert greater control over stimulus selectivity and reinforcement have great appeal in working with children with ADHD. A major advantage of behavioral interventions is that parents, as well as teachers and other caretakers, can be trained to use the techniques (Fabiano et al., 2009; Pfiffner & Haack, 2014). Moreover, they are adaptable to a variety of settings, which increases generalization of behavior and maintenance of therapeutic gains. These techniques have also been found to be effective in dealing with disorders that are often comorbid with ADHD, such as CD, ODD, anxiety disorders, and mood disorders.

The behavioral techniques most often used for children with ADHD are contingency management procedures, which primarily involve the use of positive reinforcement or other consequences designed to shape desired behavior. Contingency management programs involve teaching the parents (and teachers or other caretakers, as applicable) to use these techniques with a particular child and helping them implement the techniques in the child's environment. For example, having a token reward system at home and school, in which the child earns tokens for positive behavior, can help him or her learn to increase appropriate behaviors (e.g., completing tasks), and decrease inappropriate behaviors (e.g., yelling at a parent, spitting at a sibling). The heterogeneity of behavior of children with ADHD means that, clinically, one must adapt the most effective treatments to the individual child and family. The use of a Daily Report Card (see Figure 9.1), or forms that have clearly defined target behaviors completed by teachers, help students get feedback from school, which can then be sent home for parents to reward appropriate behavior (DuPaul et al., 2013). All parents of children with ADHD (as well as any parent!), would benefit from understanding basic management procedures, child-rearing principles, and appropriate developmental expectations. See Chapter 10 for more details. A good example of applying behavioral interventions across multiple domains for children with ADHD is the summer treatment program (STP), which is an intensive 6 to 9-week intervention in a recreational setting that has shown strong outcomes for improvement in academics, behavior, and social functioning (Evans et al., 2014; Fabiano, Schatz, & Pelham, 2014). Within the STP, teachers, counselors, and parents all implement strategies to help improve consistency across environments. However, as with other treatments, it is important to continue the strategies after the treatment, or the behaviors may deteriorate when the interventions are withdrawn (Chronis et al., 2004).

Daily Report Card



Child's Name: ______ Age: ______ Monday's Date: ______

List the behaviors you are monitoring. Then rate them on a scale of 1 to 4 (1 – just right, 2 – good, 3 – needs reminders, or 4 – needs practice) for each day of the week.

Behavior	Mon.	Tues.	Wed.	Thurs.	Fri.
Sample					
Completed at least 75% of work	3	2	3	2	4

Comments: ______

FIGURE 9.1. Daily Report Card for monitoring progress from school to home.

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Intervention in the Environment/Changing the Consequences of the Behavior

Techniques used in the classroom include special education classes, antecedent-based interventions (task-related and instructional modifications, use of personal computers and other aids, and peer tutoring), and consequence-based interventions (contingency management methods, token reinforcement systems, home-based evaluation/reinforcement programs, increased attention by teachers to child compliance, in-class time-out procedures, response cost programs, and behavioral contracts) (DuPaul & Stoner, 2014). There is evidence regarding the effectiveness of these techniques in reducing classroom behavior problems and increasing academic productivity (Trout, Lienemann, Reid, & Epstein, 2007). However, the extent to which these techniques bring behavior closer to typical behavior, or the extent to which treatment gains are maintained after the techniques are withdrawn or the child moves on to another classroom, grade, or teacher, is not known. Also, the extent to which these programs can be used depends on the nature of a child's behavior problems, the characteristics of the school, and the degree of the parents' and teacher's commitment to implementing the methods consistently.

Antecedent-Based Interventions

Task-related and instructional modifications in the classroom have included (1) reducing the amount of seatwork; (2) ensuring student understanding prior to beginning a task; (3) providing extra time for the completion of tests and/or long-term assignments; (4) posting rules, with frequent reminders of expectations for rule-following behavior; and (5) teaching study skills and note-taking strategies (DuPaul & Stoner, 2014). The use of *computer-assisted academic interventions* has also become more common in the classroom and may help to engage some children with ADHD in different subjects. Some antecedent-based interventions that have empirical support include peer tutoring and peer coaching (Plumer & Stoner, 2005), and task modifications, including *choice making*, which allows the student to choose between two or more options of what to work on (Dunlap et al., 1994). There are different types of peer tutoring, but they all share characteristics that may be helpful for children with ADHD, including (1) a low student-to-teacher ratio, (2) self-paced instruction, (3) continual prompting around academic tasks to get more information about thought processes, and (4) immediate and frequent feedback about performance (DuPaul & Stoner, 2014). Choice making has been shown to facilitate task engagement and student independence, which may in turn improve academic performance (Dunlap et al., 1994).

Consequence-Based Interventions

Two consequence-based approaches that have been particularly useful for children with

ADHD are reinforcement that is contingent on the display of appropriate behavior, and response cost that is contingent on off-task behavior. Token programs that target task-related attention and productivity involve (1) choosing target behaviors that are active (e.g., completion of work vs. staying in one's seat); (2) having the child choose a variety of preferred activities as rewards; (3) scheduling specific time periods and/or situations for program implementation; and (4) initially implementing the program for a short period each day, then gradually increasing the time and settings in which it is used (DuPaul & Stoner, 2014).

Response cost involves giving the child a set number of token reinforcers at the beginning of an activity and deducting tokens contingent on the display of inappropriate behavior (Kazdin, 1984). Rapport, Murphy, and Bailey (1982) found that a modified response cost program increased on-task behavior as much as stimulant medication. This program involved (1) choosing active target behaviors; (2) having the child choose reinforcing activities; (3) specifying the situation in which the response cost would be used; (4) starting the work period with 0 points, with points earned periodically for engaging in the target behavior; (5) having the teacher reward the student on an interval schedule (i.e., periodically monitoring the behavior); (6) deducting a point if the child exhibited significant off-task behavior; and (7) allowing the child to exchange his or her final net points for a certain amount of time with a preferred activity. The combination of response cost and positive reinforcement has been shown to be more effective than positive reinforcement alone in the maintenance of on-task behavior (Carlson & Tamm, 2000). In addition, the use of secondary and tangible reinforcers (tokens and activities) has been found to be more effective than teacher attention or social reinforcement alone in improving the behavior and academic performance of children with ADHD (DuPaul & Stoner, 2014; Pfiffner, Rosen, & O'Leary, 1985). Although response cost is a mild punishment, it is usually acceptable to both students and teachers when the rate of positive reinforcers is higher than the rate of response cost (e.g., 3:1). In addition, this program can be developed for use classroomwide rather than with just one child; these techniques can also be used in the home.

Intervention in Medical/Health Aspects

The use of medication, particularly stimulants, in the treatment of ADHD increased dramatically during the 1990s (Safer, Zito, & Fine, 1996). Although Goldman, Genel, Bergman, and Slanetz (1998) state in an American Medical Association report that stimulants are not being overprescribed, there appears to be a disproportionate number of children taking medication, and little is known about how medication for ADHD is used in community settings (Angold, Erkanli, Egger, & Costello, 2000; Fullerton et al., 2012). A variety of factors should be considered when referring a child with ADHD for medication, including the child's age, the duration and severity of the presenting problems, the history of prior treatment, parental motivation for such treatment, possible stimulant abuse by parents or other siblings living in the home, and the likelihood that the parents will administer the medication responsibly and in compliance with the physician's directions (Pliszka & AACAP Child and Adolescent Work Group on Quality Issues, 2007).

Given the effectiveness of drug therapy for treatment of ADHD, it is important for clinicians to work with physicians to ensure that the most appropriate dose is prescribed for improvement of the targeted behaviors. Systematic algorithms have been developed to assist medical providers in psychopharmacological treatment of children with ADHD, with and without comorbid disorders (American Academy of Pediatrics, 2011; Pliszka et al., 2006; Pliszka & AACAP Child and Adolescent Work Group on Quality Issues, 2007).

Medications Used for Attention-Deficit/Hyperactivity Disorder

The drugs most commonly used in treating children with ADHD are psychostimulants, atomoxetine, and tricyclic antidepressants (see Connor, 2015, for a review). The psychostimulants, including methylphenidate (MPH; brand name, Ritalin), dextroamphetamine (Dexedrine), and pemoline (Cylert), are the most frequently used U.S. Food and Drug Administration (FDA)-approved medications for ADHD, and are prescribed to an estimated 7% of elementary school-age children (Rowland et al., 2002). Reports indicate that approximately 70–85% of children with ADHD over age 5 years respond positively to a stimulant medication, and if a second stimulant is tried because the first is ineffective, response rates may then increase to 80–90% (Rapport, 1998; Pliszka & AACAP Child and Adolescent Work Group on Quality Issues, 2007). MPH acts rapidly, producing effects on behavior 30–45 minutes after oral ingestion, with therapeutic impact peaking within 2–4 hours. Given its short behavioral half-life of 2½ hours, MPH is usually administered two or three times daily. However, several long-acting forms of stimulants have been developed (e.g., Concerta, Daytrana, Metadate, Adderall, Vyvanse) and have shown to be as effective as the short-acting medications. These longer acting medications have become standards of care for children, particularly because they keep more consistent levels of the medication in the bloodstream through the day, and there is no need for additional dosage at school (Connor, 2015).

In a summary of the literature, Connor (2015) reported a number of primary positive effects of stimulant medication among school-age children, including improved attention span, decreased impulsivity, diminished task-irrelevant activities (especially in structured situations), and generally decreased disruptive behavior in social situations. Secondary effects of these changes include (1) increased compliance to commands and instructions; (2) increased quality and quantity of academic assignments completed; (3) improved peer interactions and increased peer acceptance; and (4) decreased parent and teacher reprimands, supervision, and punishment. Thus, numerous domains are potentially affected by stimulants, and it is difficult to know which domains will improve in a particular child. The positive changes, however, result in smoother day-to-day interactions in different settings and with different people.

Most side effects of MPH are mild, dose-related, and fade within a few days of treatment onset or are reversible through adjustments in the amount or timing of medication (Pliszka & AACAP Child and Adolescent Work Group on Quality Issues, 2007). Reported side effects include sleep disturbances, reduced appetite (with potential weight loss and/or growth suppression), mild elevations in heart rate and diastolic blood pressure, stomachaches, headaches, irritability, unhappiness (crying), withdrawal, constricted cognitive ability (overfocusing on certain phenomena), rebound effects, and emergence or intensification of tics and other nervous mannerisms. Although there has been some concern about the development of tolerance, there is little evidence that behavioral improvements decrease over time (Whalen & Henker, 1998). There also has been concern about weight loss and/or suppression of growth, but MPH is not reported to compromise final height in young adults who are treated with the drug in childhood, even when there is an adverse effect on growth rate during the active treatment phrase (Faraone, Biederman, Morley, & Spencer, 2008). The emergence or intensification of tics is a more serious but infrequent side effect; MPH has been used successfully in treating children with ADHD and a comorbid tic disorder, but Dexedrine has been found to increase tics (Bloch, Panza, Landeros-Weisenberger, & Leckman, 2009; Cohen et al., 2015). The greatest benefit for children with ADHD-C and comorbid tic disorder is the combination of clonidine and MPH; the clonidine appears to help with impulsivity and hyperactivity and MPH is most helpful for inattention (Bloch et al., 2009; Kurlan & Tourette's Syndrome Study Group, 2002).

In the first major clinical trial to focus on a childhood disorder, the Multimodal Treatment Study of Children with ADHD (MTA) investigated the relative effectiveness of four treatments for ADHD: (1) behavioral treatment, including 35 sessions of behavioral parent training, up to 10 teacher/school consultation visits per school year, a 12-week classroom aide, and STP; (2) medication management, including psychostimulant medication 7 days per week; (3) combined behavioral treatment and medical management; and (4) a community control comparison group (MTA Cooperative Group, 1999). Initial findings at 14 months indicated that all groups showed improvement with treatment; the medication and combined treatment groups were more effective than behavioral therapy alone or community treatment as usual. In addition, adding behavioral treatments to medication resulted in only modest additional benefits (MTA Cooperative Group, 1999; Swanson et al., 2008). However, children receiving intensive psychosocial treatment exhibited higher-level functioning and were able to take lower doses of medication (31.1 mg/day) than children receiving medication management alone (38.1 mg/day) (Greenhill et al., 2001). In addition, since many of the children in the community control group were on medication, the results suggested that treatment medication levels should be monitored over time for maximum effectiveness (Swanson et al., 2008). The study has now followed children across 8 years and has found that, in contrast to some claims, stimulant use does not increase an adolescent's risk of substance use (Molina et al., 2013).

Given the results of the MTA, some professionals have touted medication as the first-line treatment for ADHD. However, there is continued controversy about these results, particularly about *treatment sequencing*, or if the first treatment delivered contributes to better results (Kean, 2004). For example, Pelham et al. (2016) found that beginning treatment with behavioral interventions then adding medication led to more improved outcomes in contrast to beginning with medication and adding behavioral training. In addition, families assigned to begin with behavioral treatment showed better treatment attendance than those with medication. Cost estimates have also shown that behavioral treatment is less costly over a year than medication, with similar outcomes, which makes it a more cost-effective initial option for families (Page et al., 2016). Therefore, the combination of behavioral treatment and medication (beginning with behavioral treatment) is the first-line treatment for most children with ADHD, with the acknowledgment that treatment must be ongoing to have an impact on long-term outcome. Similar results have been found for preschoolers, and the American Academy of Pediatrics (AAP; 2011) specifically recommends behavioral treatment be used initially for this age group.

Contraindications for stimulant therapy may include a history of seizures (MPH can lower the threshold for seizures in children with such a history), glaucoma, hypertension, hyperthyroidism, documented hypersensitivity, and allergic or other adverse reactions to the drug (Connor, 2015; Rapport, 1998). Research is inconsistent with regard to how children with anxiety or depression respond to stimulant medication (DuPaul, Barkley, & McMurray, 1994; MTA Cooperative, 1999; Tannock, Ickowicz, & Schachar, 1995). Thus, if stimulant medication is not effective, a trial with other FDA-approved medications, including atomoxetine (e.g., Strattera), a long-acting form of clonidine (e.g., Kapvay), or a long-acting guanfacine preparation (e.g., Intuniv), may be appropriate (Connor, 2015; Pliszka & AACAP Child and Adolescent Work Group on Quality Issues, 2007). Atomoxetine has been shown to be effective in reducing symptoms, it may work well on comorbid anxiety symptoms, and it has a low abuse potential (Geller et al., 2007). Both long-acting clonidine and guanfacine have demonstrated some success with ADHD symptoms, but they may have strong sedation side effects (Connor, 2015). Tricyclic antidepressants (e.g., imipramine) have also demonstrated some effectiveness in ADHD, though they are not FDA-approved, particularly in children with comorbid anxiety, depression, or tic disorders (Biederman

& Spencer, 2008). The treatment effects may diminish over time, however; therefore, antidepressants are not recommended for long-term management of ADHD. In addition, imipramine has the potential side effect of cardiac arrest.

CASE EXAMPLE: ATTENTION-DEFICIT/HYPERACTIVITY DISORDER, COMBINED PRESENTATION

Step 1: Initial Contact

Mrs. Ruff called about her 8-year-old son, Eddie, who was experiencing difficulties in school, as well as problems at home in completing chores, following directions, and doing things independently. She described him as "spacey" and "just not with it." The CBCL, PSI-4, ECBI, and General Parent Questionnaire were sent for her and Mr. Ruff to complete. The parent questionnaire indicated a middle-class family, with the mother employed as a church secretary and the father as a fireman. Eddie had one younger and two older sisters. The parents indicated that their primary concern was Eddie's school performance. On the CBCL, both parents rated Eddie as being within the normal range on all scales except the Attention Problems scale, which was in the clinically significant range. On the ECBI, both parents rated Eddie's frequency of problems in the high-normal range but noted significant problems in the intensity of his behaviors. On the PSI-4, Eddie was described as a pleasant child who was not very adaptable to change. The parents indicated some marital problems but felt competent in their parenting of Eddie, whom they both enjoyed.

Step 2: Initial Intake Interview

Parent Interview

Mr. and Mrs. Ruff agreed to include Eddie in the initial interview. The parents were very pleasant and, although concerned about Eddie, were quite supportive of him. Eddie seemed relieved to be getting some help regarding his school problems. Mrs. Ruff said that her pregnancy with Eddie was uneventful, with the exception of a long and painful delivery. Eddie was described as a sweet and calm baby, after an initial period of colic. The first problems were noticed at age 3, when Eddie had a very difficult time adjusting to the family's move from another state. He was very unhappy in his first preschool experience, which was quite structured, and the parents took him out of school until prekindergarten. He repeated prekindergarten because of "immaturity." He was described as very active, as having difficulty following directions, and generally as "busy." In kindergarten he was diagnosed with a mild case of asthma; the medication for this condition tended to exacerbate his activity level. Problems with talking, fidgeting, and staying on-task were noted in first grade, but Eddie enjoyed school and the friends he made there. At the present time, Eddie is in second grade and continues to have the same problems, as well as evidence difficulties with writing and reading. He had also become more anxious about going to school, as expressed through somatic complaints and general distress on school days. At home, he was described as "hyper," as being "in constant motion," and as having difficulty listening and sitting still. His mother said he followed directions best if eye contact was made with him before telling him what to do. Furthermore, she felt he was trying hard to be compliant and cooperative, but that he could not follow through on this. She said that Eddie had a number of friends in the neighborhood and enjoyed playing sports, but he lacked the required focus to play team sports. He was also described as well liked by his sisters, and as very kind and loving.

During the interview, Eddie played quietly with cars and Legos. He often commented on what was being discussed, indicating that he hated school and loved summer best.

Child Interview

Eddie was quite verbal and able to describe a range of feelings. He said he felt tired and as if he were "drowning" when he was at school, but he felt fine at home. Furthermore, he described himself as having trouble sleeping and not wanting to eat before going to school. On the Piers–Harris Children's Self-Concept Scale—Revised, he indicated that he gave up easily, was not good in doing homework, was slow in finishing his work, was not an important member of his class, and that he felt left out. When asked what one thing he would like to change about himself, he said, "Be in the last year of college!" He also expressed a number of fears, such as nightmares, burglars, and worries about not getting his homework done.

Step 3: Observation of Behavior

Five minutes of child-directed and 5 minutes of parent-directed play indicated that Eddie had a warm, supportive relationship with each parent. The parents generally followed Eddie's lead and appeared to have difficulty placing demands on him. For example, when they told him to clean up the toys, they actually did the cleaning up as he finished playing.

Step 4: Further Assessment

It was recommended that the teacher be contacted and a school visit be conducted. The teacher also rated Eddie on the teacher version of the CBCL; scores on the Attention Problems and Anxious/Depressed scales were clinically significant. On the Revised

Conners Teacher Rating Scale, he was one standard deviation above the mean for Hyperactivity, two standard deviations above the mean for Impulsivity, and three standard deviations above the mean for Anxiety. The teacher described Eddie as a sweet boy who had some friends but was very sensitive to any teasing or perceived threats from the other children. He also had difficulty with written tasks and reading, but she thought this was due more to his inattentiveness and fidgeting than to a specific learning problem. The teacher did, however, question the possibility of ADHD and felt that a psychoeducational evaluation would be helpful. Eddie was not viewed as a behavior problem in the classroom.

The psychoeducational evaluation indicated that Eddie was in the average range of intelligence, which was thought to be an underestimation given his poor attention and motor activity throughout the testing. Eddie evidenced a moderate learning problem, with phonological coding and written language as specific deficits.

Observation in the classroom indicated that Eddie was off-task 80% of the time, as compared to 20% for a randomly selected peer. He often stared out the window or was otherwise distracted when instructions were given. He completed only half of a worksheet during the 30-minute observation, compared to the other children, who completed one and a half to two pages.

Step 5: Referral to Other Health Care Professionals

Eddie had had a recent physical examination and was in good health despite continuing mild episodes of asthma, which were controlled by medication.

Step 6: Communication of Findings and Treatment Recommendations

Mr. and Mrs. Ruff were initially seen alone to go over the results of both the psychoeducational evaluation and the school observation. They were told that Eddie was a child with a delightful personality and many strengths, but one who was struggling mightily to “keep his head above water in school.” The basis for his school difficulties appeared to lie in a specific learning problem with phonological coding and written language, as well as problems in controlling both his activity level and attention. His methods for coping (anxiety, tuning out) were understandable but ineffective. Although Eddie’s difficulties with controlling his impulses, focusing his attention, and exhibiting a high activity level had been present from an early age, they did not appear to interfere with his functioning until he entered the structured environment of prekindergarten. Given his pleasant personality and eagerness to please, his problems learning did not become evident until increased demands for performance were placed on him, as occurred in second grade. It was interesting that when Eddie’s problems were described, Mr. Ruff said that he himself had similar problems in school, and he did not want Eddie to suffer as he had. Eddie was given a diagnosis of ADHD-C, as well as a specific learning disability. His anxiety was described as an adjustment reaction to the stress of school.

Recommendations included intensive academic resource help, which was available at school, and for which his test scores qualified him. A trial of medication was discussed, and the parents were encouraged to talk further with their pediatrician about the advantages and disadvantages of using medication with a child Eddie's age. They were hesitant to use medication and felt they would like to try to make the necessary changes in the school before doing this. The third recommendation was for the parents to set a more consistent routine for Eddie at home, with clearly specified responsibilities and a reward chart for completing tasks in a timely manner. Mr. and Mrs. Ruff understood that their tendency to help Eddie by doing things for him could actually increase his sense of incompetence and decrease his opportunities to develop needed skills. Given that Eddie's anxiety was specific to the school setting, it was decided that changing things in the classroom and helping him in a more effective way with homework would be the best ways to deal with this problem.

The next day, the results of the evaluation and recommendations were explained in age-appropriate language to Eddie in the presence of his mother. He seemed relieved to learn that he could get help and was pleased that he was capable of doing the schoolwork with extra help.

Course of Treatment

Eddie was given the resource help he needed in school, and the parents completed a 4-week course on parent management skills. Two months later, Mrs. Ruff called to discuss the use of medication. Although Eddie was doing much better in school and was not so anxious about his academic performance, both she and her husband had become more aware of how his inability to attend was interfering with the learning process. Mrs. Ruff was told about the value of carefully monitoring a trial of medication, and she agreed to contact the pediatrician to set up such a trial. The pediatrician had previously received a brief report of the evaluation findings and recommendations, and she agreed that a trial of MPH would be carried out. Over a few weeks, a dose of 15 mg was found to be superior to the other doses: Observation in the classroom and work completed, as reported by the teacher, indicated that Eddie's on-task behavior improved by 87%; fidgeting, talking, and need for redirection were each 100% improved; copying errors improved 86%; and work completion showed a 64% improvement. Furthermore, Eddie's anxiety level and self-esteem continued to improve with the medication. The parents agreed with the pediatrician that Eddie's behavior on medication should be monitored every 3 months. They elected not to have a late afternoon dose or to medicate

Eddie on weekends.

RESOURCES FOR CLINICIANS

Barkley, R. A. (2015a). *Attention-deficit/hyperactivity disorder: A handbook for diagnosis and treatment* (4th ed.) New York: Guilford Press.

DuPaul, G. J., & Stoner, G. (2014). *ADHD in the schools: Assessment and intervention strategies* (3rd ed.). New York: Guilford Press.

RESOURCES FOR PARENTS

Barkley, R. A. (2013). *Taking charge of ADHD: The complete, authoritative guide for parents* (3rd ed.). New York: Guilford Press.

Nadeau, K. G., & Dixon, E. B. (2004). *Learning to slow down and pay attention: A book for kids about ADHD* (3rd ed.). Washington, DC: Magination Press.

Quinn, P., & Stern, J. (2012). *Putting on the brakes: Understanding and taking control of your ADD or ADHD* (3rd ed.). Washington, DC: Magination Press.

Children and Adults with Attention-Deficit/Hyperactivity Disorder (CHADD)
www.chadd.org

CHAPTER 10

Disruptive Behavior

A major child-rearing goal for parents is the socialization of their children. As part of this process, parents must help their children learn to cope with various stresses of life in socially acceptable ways. As children become more autonomous and independent, their desires and frustrations often come into conflict with those of their parents; the result is typically a display of negative or disruptive behavior. These disruptive behaviors are usually transient and considered “typical” at certain ages (e.g., toddler temper tantrums or adolescent rebellion). Some children, however, exhibit disruptive behaviors with greater intensity and/or frequency than would be expected. Moreover, these behaviors may persist or escalate throughout childhood and adolescence, and even into adult life. Thus, it becomes a challenge for clinicians to determine when disruptive behaviors exhibited by children referred for treatment are “typical” and likely to be transient, and when they are clinically significant and likely to persist or become more severe.

The term *disruptive behavior* describes a diverse set of behaviors that may include temper tantrums, excessive whining or crying, demanding attention, noncompliance, defiance, aggressive acts against self or others, stealing, lying, destruction of property, and delinquency. Children exhibiting a pattern of these behaviors have been variously labeled as “acting out,” “externalizing,” “oppositional,” “noncompliant,” “antisocial,” or “conduct-disordered.” Disruptive behaviors are the most frequent causes for concern among parents of typically developing children, and often pediatricians are the first to hear about behavior problems, but they may or may not have an appropriate screening and referral system in place (Kolko, Campo, Kelleher, & Chang, 2010). Although approximately 67% of children may begin having tantrums when they are 2 or 3 years old, 57% discontinue this behavior after the age of 5 years (Osterman & Bjorkqvist, 2010). Therefore, early identification of children who will continue to have difficulties may be difficult. However, clinically significant disruptive behavior can be distinguished from typical behavior even in young children by looking at the quality (e.g., intensity, frequency, length of tantrum) and pervasiveness of the behavior across settings (Daniels, Mandleco, & Luthy, 2012; Wakschlag et al., 2007). We focus in this chapter on research related to the classification and diagnosis of disruptive behavior disorders; their prevalence, comorbidity, persistence, and etiology; the developmental course and correlates of disruptive behavior; and issues and methods for assessment and treatment.

DEFINITION AND CLASSIFICATION

The fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5; American Psychiatric Association [APA], 2013) includes a number of disorders in the group now called "disruptive, impulse-control, and conduct disorders": oppositional defiant disorder (ODD), intermittent explosive disorder (IED), and conduct disorder (CD), as well as pyromania and kleptomania. Although these disorders are interrelated, we focus in this chapter on ODD and CD, since they are more common and have a more extensive research base. Attention-deficit/hyperactivity disorder (ADHD) is developmentally related to ODD and CD, but it is now listed in the "neurodevelopmental disorders" section of DSM-5 (see Chapter 9).

Although ODD and CD are discussed as separate disorders here, research suggests that they are linked developmentally and are consistently associated with the same risk factors (Loeber, Burke, & Pardini, 2009). Moreover, these factors, which we discuss in the section on etiology, differentiate both ODD and CD from other psychiatric disorders, including ADHD. In DSM-IV (APA, 1994), ODD and CD were seen as so interdependent that a diagnosis of CD superseded an ODD diagnosis (e.g., one could not diagnose both at the same time). Although children with CD almost always have a history of or concurrent symptoms of ODD (Loeber, Burke, Lahey, Winters, & Zera, 2000), only some children with ODD develop CD later in life (Burke, Waldman, & Lahey, 2010; Rowe, Costello, Angold, Copeland, & Maughan, 2010). Current research has examined other possible outcomes of ODD and, subsequently, DSM-5 has changed the criteria to allow the diagnosis of ODD and CD at the same time if a child meets criteria for both (APA, 2013; Rowe et al., 2010). However, due to the past differences in concurrent diagnosing, research often has not differentiated ODD and CD, and, as a consequence, data concerning prevalence, risk factors, and stability tend to apply to either or both disorders.

Oppositional Defiant Disorder

Noncompliance is a critical element in the diagnosis of ODD as described in DSM-5, whereas aggression is typically not a component of this disorder. According to DSM-5, children with ODD exhibit a pattern of hostile, negative, and defiant behavior toward authority figures, which in young children is often directed toward parents, and in older children toward parents, teachers, and other adults. This pattern of behavior must be evident for at least 6 months in interactions with another person (other than a sibling). In addition, the child must evidence at least four of the following eight behaviors in interactions more frequently than would be expected for children of the same age and developmental level: *angry/irritable mood*: (1) loses temper often, (2) is touchy or easily annoyed, (3) is often angry or resentful; *argumentative/defiant behavior*: (4) often does things deliberately to annoy people, (5) frequently blames other people for his or her own misbehavior or mistakes; (6) argues frequently with adults, (7) often openly defies or resists complying with adults' rules or requests; and *vindictiveness*: (8) is frequently vindictive or spiteful (APA, 2013). In addition, the behaviors have to cause significant distress for the child or others, or negatively impact social, educational, or other important areas of functioning. These categories or factors have been shown to be related to different outcomes for children with ODD. For example, the angry/irritable mood factor is more strongly related to the development of depression, while the argumentative/defiant behavior factor is related to the development of CD (Burke & Loeber, 2010). DSM-5 also has a specifier for severity of ODD across settings: *mild* suggests difficulties in one setting; *moderate,* in at least two; and *severe,* in three or more settings (APA, 2013).

Conduct Disorder

Many of the features of ODD are seen in children with CD. DSM-5 distinguishes the two disorders by whether the basic rights of others or major age-appropriate societal norms or rules are violated. At least one of these features is essential for a diagnosis of CD, as reflected in the criterion behaviors for CD but not for ODD. Children with CD exhibit a pattern of behavior that includes aggression to people and animals, destruction of property, theft or deceitfulness, and serious violations of rules. The DSM-5 criteria for a diagnosis of CD involve a pattern of antisocial behavior that lasts at least 6 months and includes at least three behaviors from any one of four categories, occurring during the last 12 months, with at least one symptom occurring during the last 6 months. The categories and behaviors are as follows: *aggression to people and animals:* (1) frequently threatens, bullies, or intimidates others; (2) frequently starts physical fights; (3) has used a weapon at some point; (4–5) has shown physical cruelty to people or animals; (6) has stolen something, with confrontation of a victim; (7) has forced another person into sexual activity; *destruction of property:* (8) has set a fire with intention to cause serious harm; (9) has intentionally destroyed property; *deceitfulness or theft:* (10) has engaged in breaking and entering; (11) lies frequently; (12) has stolen something valuable, but without confronting a victim (e.g., shoplifting); (13) stays out at night, starting before age 13 years; (14) runs away from home; and (15) is frequently truant, starting before age 13 years (APA, 2013).

Although some children are diagnosed with CD during early childhood, the more serious antisocial behaviors typical of CD usually do not emerge until later in childhood and often coincide with the beginning of adolescence (Frick & Ellis, 1999; Frick & Viding, 2009). Thus, a diagnosis of ODD is usually much more likely than one of CD for young children. Indeed, CD is rarely seen during the preschool years, although it can appear as early as age 5–6 years (APA, 2013). It is important to note that the symptoms of ODD do not necessarily disappear in children who are later diagnosed with CD. Rather, children tend to add more severe disruptive behaviors to their already extensive repertoires. In addition, CD is strongly associated with juvenile delinquency, and they share many of the same risk factors (Loeber et al., 2009). However, they are two separate concepts; CD is a mental health disorder, and *juvenile delinquency* is a legal term for youth under age 18 years who are in trouble with the law. Loeber et al. (1993) developed a model of how disruptive behavior is related to delinquency with three paths: (1) an overt pathway of minor aggression toward others that leads to physical fighting, then to more severe violence; (2) a covert pathway with minor acts that are concealed (e.g., stealing, lying), leading to property damage, then to more serious delinquent acts; and (3) conflict with authority, which begins with oppositional behavior, leading to increased defiance, then to avoidance of authority (e.g., truancy). This model has been supported by research and shows increasing severity of aggression and violence over time; for example, a longitudinal study showed that 93.9% of those who committed homicide had previously been violent (Loeber & Burke, 2011; Loeber et al., 2005, 2009).

There are factors that help distinguish different types of conduct problems. The first specifier of CD is *childhood onset*, with the child exhibiting at least one symptom before age 10 years; the second is *adolescent onset*, with symptoms beginning after age 10 years; and the third is *unspecified onset*, in which it is difficult to distinguish the age of onset. This differentiation reflects the fact that although many adolescents with conduct problems show disruptive behaviors early in life, a substantial group of youngsters first exhibit these behaviors during adolescence (Moffitt et al., 2008). Longitudinal studies have consistently shown that children who exhibit the most serious antisocial behavior initiate this behavior during childhood, whereas those who do not exhibit antisocial behavior until adolescence tend to engage in deviant behavior that is less serious and less likely to persist into adulthood (see reviews by Frick & Viding, 2009; Moffitt et al., 2008). For example, children with childhood onset of CD are more likely to have a genetic vulnerability to aggression (e.g., family history of antisocial behavior), severe family difficulties, perinatal complications, cognitive difficulties (e.g., lower IQ), comorbid diagnosis of ADHD, and school and peer difficulties (Moffitt et al., 2008). They also have more negative outcomes in adulthood for violence, mental health disorders, and difficulties in work and family life. In contrast, difficulties related to adolescent onset of CD do not involve as many of these risk factors and seem to be related to youth associating with and being influenced by deviant peers (Ingoldsby et al., 2006; Moffitt et al., 2008). Although the outcome is not as negative for the adolescent-onset group with CD, they may still have difficulties related to their acting out, such as substance abuse and criminal records (Frick & Viding, 2009).

A second specifier involves a child's personality traits or dispositions. The clinician should specify *with limited prosocial emotions* if a child has displayed at least two particular symptoms across settings and in interactions with different people. These symptoms include (1) not feeling bad or guilty after doing something wrong, (2) lack of empathy about the feelings of others, (3) low concern about problematic performance, and/or (4) difficulty expressing emotions to others (APA, 2013). This specifier is based on *callous* (use of others for own gain) and *unemotional* (lack of empathy, egocentricity) traits (CU), which are terms used to designate a particularly difficult to treat group of adults with a severe form of antisocial personality disorder (ASPD; i.e., psychopathy; Hare & Neumann, 2008). In a review of the literature, Frick, Ray, Thornton, and Kahn (2014) indicate that a significant subgroup of children with the childhood-onset type of CD show CU traits that are analogous to definitions of adult psychopathy. First, children with CD and CU traits tend to have a more severe type of disturbance, engage in a greater variety of deviant behaviors, and show less distress regarding their own behavior. Second, the origin of disruptive behavior in children with CD and CU traits is thought to reflect low behavioral inhibition caused by underreactivity in the sympathetic arm of the autonomic nervous system. This, in turn, results in high levels of thrill seeking and more sensitivity to rewards than to punishment (McMahon & Frick, 2005). In contrast, the disruptive behavior of children with CD without CU traits is thought to originate through a variety of environmental factors, such as problematic parenting, cognitive difficulties, and/or child abuse. This suggests that current treatment methods are likely to be more effective for children with CD and low levels of CU traits than for those with high CU traits. Finally, intervention with children who have high CU traits should begin very early in life, because CU traits strongly suggest a biological basis (Frick et al., 2014).

A third specifier marks the severity of CD in the child. *Mild* suggests fewer symptoms and lower harm to others, while *severe* suggests many conduct problems that cause significant harm to others. *Moderate* identifies that the child has several conduct problems and intermediate effects on others.

Other Disruptive, Impulse-Control, and Conduct Disorders

Three other disorders that previously were grouped in the category of “impulse-control disorders not elsewhere classified” are now in this section, including IED, pyromania, and kleptomania. IED is placed between ODD and CD in DSM-5, and represents children who are unable to control impulsive aggression (i.e., the outburst is not planned) in situations where the child’s level of upset is not consistent with the event. The child must be at least 6 years old and show verbal or physical aggression that occurs approximately two times per week over a 3-month period, without damage to property or others, or three outbursts within a year that cause damage to others or property (APA, 2013). This disorder may be difficult to differentiate from other childhood disorders, particularly ADHD, ODD, and CD. Impulsivity is seen with ADHD, but ADHD also requires other symptoms, and impulsivity is seen across different settings, not just with aggressive responding. ODD and IED both involve irritable mood, but ODD is most often in response to an authority figure, while IED may be displayed in a wider range of situations. Both CD and IED involve aggressive outbursts but the outbursts seen with CD appear to be more planful than those in IED. Also, the diagnosis of IED can be given in addition to these other disorders if a child meets criteria for both (APA, 2013). Very little is known about IED in children, so more research is needed to distinguish this disorder from others (McLaughlin et al., 2012). Pyromania (i.e., firesetting) and kleptomania (i.e., stealing) should be examined when a youth shows impulsive behaviors that appear to be related to intense interest and pleasure in the act or relief from doing the act, not from the gain (e.g., getting new clothes) involved in committing the act (APA, 2013).

GENERAL CHARACTERISTICS OF DISRUPTIVE BEHAVIOR PROBLEMS

Prevalence

Prevalence of Diagnosable Disorders versus Disruptive Behavior in General

Epidemiological research has shown that disruptive and disordered conduct behaviors are a major problem for children and parents, and result in enormous costs to society, particularly those related to crime and education expenditures (Foster, Jones, & the Conduct Problems Prevention Research Group, 2005). DSM-5 estimates the prevalence of ODD to be between 1 and 11%, and that of CD to be between 2 and 10%, depending on the age and gender of the child (APA, 2013). A recent meta-analysis estimated the worldwide prevalence of ODD at 3.3% and that of CD at 3.2%, with no geographic factors related to differences (Canino, Polanczyk, Bauermeister, Rohde, & Frick, 2010). Although these figures are alarming in themselves, they probably underestimate the extent to which children and adolescents actually engage in disruptive and antisocial behaviors. For example, in a phone interview of 4,010 parents, 30% of parents reported child behavioral or emotional difficulties (Sanders, Markie-Dadds, Rinaldis, Firman, & Baid, 2007), and as many as 60% of 13- to 18-year-olds admit to more than one type of antisocial behavior, such as drug abuse, arson, vandalism, or aggression (Kazdin, 1995).

Gender Differences

Boys are more often described as engaging in disruptive behaviors, particularly noncompliance and aggression, than are girls, although there are differences across the age span (APA, 2013; Lavigne, LeBailly, Hopkins, Gouze, & Binns, 2009). During the preschool years, there are not significant gender differences in disruptive behaviors

(Lavigne et al., 2009). However, when children reach school age, boys are two to three times more likely to engage in these behaviors (Kimonis, Frick, & McMahon, 2014). Boys with conduct problems also tend to engage in more severe and harmful behaviors than do girls with such problems (McEachern & Snyder, 2012). Girls also engage in more indirect or relational aggressive behaviors than in physically aggressive behaviors, such as alienation, ostracism, character defamation, gossip and collusion (Crick & Grotpeter, 1995; McEachern & Snyder, 2012).

Although the prevalence of CD increases in adolescence for both boys and girls, the increase is more substantial for girls than for boys, reflecting the possibility of delayed onset for a substantial number of girls (Loeber et al., 2000; Moffitt et al., 2008). As adults, more men than women are diagnosed with ASPD, but it has been suggested that ASPD may be underdiagnosed in women, because the criteria may not reflect gender differences in the display of the disorder (APA, 2013; Sher et al., 2015).

Comorbidity

Children with serious disruptive behavior often have symptoms of other psychiatric disorders (Kimonis, Frick, et al., 2014). The most consistent and highest comorbidity is between disruptive behaviors and ADHD, with a meta-analysis indicating that up to 41% of children in the community with ODD/CD were also diagnosed with ADHD (Angold, Costello, & Erkanli, 1999). Other studies have reported that over 80% of children with conduct problems are also diagnosed with ADHD (e.g., Greene et al., 2002). Because ADHD and ODD/CD so frequently are comorbid, the distinction between these two disorders is not always clear, although it has been demonstrated that they have distinct etiologies and prognoses (see Chapter 9). In addition, a developmental model suggests a relationship between these disorders, with ADHD most often developing first, then moving from ODD to CD (Nock, Kazdin, Hiripi, & Kessler, 2007). For example, a longitudinal study revealed that 82% of children with ODD were subsequently diagnosed with CD (Loeber, Green, Keenan, & Lahey, 1995). Children who display symptoms of ADHD and ODD/CD, particularly from a young age, are at very high risk for poor outcomes. These children display far more serious antisocial behaviors and are at greater risk for delinquent behavior, substance use, and ASPD in adulthood than children with a single diagnosis of either CD or ADHD (Biederman et al., 2008; Loeber et al., 2000).

Other psychiatric disorders that are comorbid with disruptive behaviors include anxiety disorders and depression. Estimates of the comorbidity of anxiety disorders and ODD/CD range from 4.8 to 55.3% (Angold et al., 1999). In contrast to the combination of ADHD and CD, which typically results in a more severe form of disruptive behavior disorder, the presence of anxiety in children with conduct problems appears to reflect less severe disruptive behavior (although not necessarily less impairment), at least among preadolescent children (Loeber et al., 2000). Current research with ODD has found that the angry/irritable mood factor is more strongly related to the development of depression (Burke & Loeber, 2010), and this factor may also account for much of the relationship between CD and emotional regulation issues that develop into internalizing disorders (Kimonis, Frick, et al., 2014; Loeber et al., 2009).

Persistence

The stability of disruptive behavior in children is an important clinical issue and has been widely studied. Results of this work vary, depending on whether one examines a specific behavior (e.g., aggression) or clusters of disruptive behaviors. In general, however, disruptive behavior tends to be quite stable over time, although the manifestation of the deviant behavior may change with age (Hare & Neumann, 2008; Loeber et al., 2009; Nock et al., 2007). Almost all severely antisocial adults, for example, have long histories of disruptive behavior as children, and most children with CD have early histories of disruptive behaviors. Moreover, many studies have demonstrated that aggressive preschool children tend to remain aggressive as they progress through school, although this may be true only for the more severe cases (Wakschlag et al., 2007). Even if disruptive behavior during the preschool years is not necessarily clinically significant, children who exhibit clusters of antisocial behaviors at high rates across settings during these early years appear to be particularly at risk for an eventual diagnosis of CD and continuation of antisocial behavior into adult life (Barker, Oliver, Viding, Salekin, & Maughan, 2011; Côté, Zoccolillo, Tremblay, Nagin, & Vitaro, 2001; Wakschlag et al., 2007). For example, in a large longitudinal community study of 1,037 children, Moffitt, Caspi, Dickson, Silva, and Stanton (1996) reported that 7% of their sample consistently evidenced disruptive behavior from ages 3 through 18 years. Further analysis of these data indicated that behavior observations of disruptive behavior at age 3 predicted ASPD and crime in adulthood (Caspi, Moffitt, Newman, & Silva, 1996).

Etiology

The causes of disruptive behavior have been widely studied, and considerable data indicate several possible developmental pathways leading to clinically significant problems. These pathways typically involve some combination of genetic or biologically based child characteristics or predispositions, parenting dysfunction, and environmental or contextual circumstances. A transactional model for the development of disruptive behavior disorders recognizes the interrelationship among multiple child, family, and environmental factors. At a very simple level, the interaction between the child's characteristics and those of his or her parents, in some cases leading to parent–child "incompatibility," is emphasized. At a more complex level, the influence of factors in the environmental context and antecedent events on both the child and parent, and their relationship, is taken into account. Although a comprehensive transactional perspective is most appropriate for understanding the etiology of disruptive behavior, research in each of the areas of risk (genetic, family, and environmental) is covered separately. Various factors that increase the risk for disruptive behaviors have been identified (e.g., Barker et al., 2011; Fowler, Tompsett, Braciszewski, Jacques-Tiura, & Baltes, 2009; Lavigne, Gouze, Hopkins, Bryant, & LeBailly, 2012; Loeber & Burke, 2011; Moffitt et al., 2008), and these are summarized in Table 10.1.

TABLE 10.1. Factors Contributing to the Development and Stability of Disruptive Behaviors

Infancy/early childhood	Middle childhood	Adolescence
	Child	
Temperament	Escalation of disruptive behaviors	Violent behavior
• Emotional regulation	Physical fighting	Oversensitivity to rejection
• Irritability	Hyperactivity/ADHD	Inflated self-esteem
• Reactivity	Social-cognitive deficits	Early school dropout
Hyperactivity	Inflated self-esteem	
Insecure–disorganized attachment	Language impairments	
Many disruptive behaviors	School failure	
	Parent	
Poor responsivity	Parenting style	Parenting style
Harsh, punitive discipline	• Poor monitoring/supervision	• Poor monitoring/supervision
Inconsistent discipline	• Hostile	• Hostile
Negative control strategies	• Punitive	• Punitive
Age (young mother)	• Inconsistent	• Inconsistent/permissive
Lack of social support	• Permissive	Psychopathology
Psychopathology	Psychopathology	• Antisocial personality disorder
• Depression	• Antisocial personality disorder	• Criminal behavior
• Antisocial personality disorder	• Criminal behavior	
• Criminal behavior		
	Environment/social	
Low SES/poverty	Dangerous neighborhood	Dangerous neighborhood
Hostile sibling relations	Poor schools	Poor schools
Many life stresses	Physical deterioration of buildings	Physical deterioration of buildings
Marital/couple distress	Deviant peer group	Gangs
Large families	Available weapons	Available weapons
Poor home environment	Access to drugs and alcohol	Access to drugs and alcohol
• Inadequate stimulation	Peer rejection	Lack of extracurricular activities
• Little or no play equipment	Hostile sibling relations	
• Lack of safety rules and supervision	Lack of extracurricular activities	
	Family instability, especially divorce/separation	

Genetic and Biological Factors

Research in behavioral genetics suggests that there is a substantial genetic component (approximately 56%) in explaining adult antisocial behavior and criminality (Ferguson, 2010). Similarly, twin and adoption studies of disruptive behavior among middle school and adolescent youngsters report high rates for heritability, ranging from 40 to 50% (e.g., Bornovalova, Hicks, Iacono, & McGue, 2010; Deater-Deckard & Plomin, 1999). Moreover, estimates of heritability increase with the severity of the disruptive behavior, the age of onset (childhood onset is more strongly related), and level of CU traits (Gjone, Stevenson, Sundet, & Eilertsen, 1996; Viding, Blair, Moffit, & Plomin, 2005). It appears that what is inherited from parents is a general liability for externalizing behaviors that then develops into different disorders depending on environmental factors (Bornovalova et al., 2010). Shared environment appears to have more of an influence in childhood, with genetics factors becoming more prominent in late adolescence and adulthood. A genetic basis also helps explain the clear association between antisocial behavior in children's and parents' (especially fathers) antisocial behavior, and the fact that this behavior appears to be stable across generations (Bornovalova et al., 2010).

Biological factors have also been found in children with disruptive disorders. Reviews of neuroimaging studies support findings of smaller brain structures and lower brain activity, particularly in the amygdala and other executive function areas associated with processing of emotions, solving problems, and self-control (Moffitt et al., 2008; Noordermeer, Luman, & Oosterlaan, 2016). The findings also suggest difficulties in these areas that are specific to disruptive disorders, showing degrees of difference by symptom levels that are unique from difficulties related to ADHD. Some studies have also indicated particular difficulties in youth with conduct problems and CU traits, with less right amygdala activity in reaction to faces with fearful expressions in contrast to neutral faces (Jones, Laurens, Herba, Barker, & Viding, 2009). These studies are consistent with findings of blunted emotional response to stimuli in children with CU traits, such as lower heart rate change, skin conductance reactivity, and/or cortisol reactivity to stressful situations (Kimonis, Fanti, & Singh, 2014).

Temperament

Many of those involved in research of the development of disruptive behavior suggest that child temperament is a likely mediator of the high genetic influence on antisocial behavior (Frick & Morris, 2004; Moffitt et al., 2008). Young children with difficult temperaments, particularly those showing *fearlessness*, have been shown to display more disruptive/aggressive behavior than those with more easygoing temperaments (e.g., Campbell, Spieker, Burchinal, Poe, & NICHD Early Child Care Research Network, 2006; Viding et al., 2005). Several aspects of child temperament have been implicated in the etiology of disruptive behaviors, including emotion regulation, intense reactivity (especially to frustration), irritability and negative emotionality, resistance to control/manageability, and high approach–low avoidance (which appears to represent a propensity to engage in thrill-seeking or risk-taking behavior). Moreover, some of these specific temperamental characteristics have been linked with later disruptive behavior problems (Eisenberg et al., 2000). In a 14-year longitudinal study of children, Barker et al. (2011), for example, found that a child's fearless temperament was associated with higher conduct problems and CU traits later in adolescence, above and beyond early parenting and prenatal maternal risk factors. Furthermore, it is more likely that a difficult temperament leads to disruptive behavior problems when it interacts with harsh, inconsistent parenting (Bornovalova et al., 2014).

Family Factors

Many factors related to family functioning have been examined as playing a causal role in the development of disruptive behavior disorders. These include parenting practices (style of discipline, warmth vs. hostility, supervision of the child), parental psychopathology (e.g., maternal depression, personality disorders, substance use disorders, and antisocial or criminal behavior), marital/couple dysfunction (e.g., divorce/separation, conflict, spouse/partner abuse), and sibling conflict. Variables in these areas undoubtedly interact with one another. Parenting practices are clearly affected by parental psychopathology and dysfunctional marital/couple relations, but research has not yet identified the primary causal agent. Querido, Eyberg, and Boggs (2001), for example, found that mothers with higher levels of depressive symptomatology displayed increased rates of negative physical discipline and also reported more child conduct problems. This section focuses on parenting practices, as this factor is thought to be a critical component of the transactional model for the development of conduct problems.

Parenting Practices

Despite the strong evidence of a biological basis for disruptive behavior, genes are ultimately dependent on environmental circumstances for their expression. Moreover, parents are clearly an important avenue of influence for child development. Considerable research has examined the effects of various parenting practices on the development and persistence of conduct problems. In general, this work indicates that harsh, punitive, abusive, and/or inconsistent discipline is a significant risk factor for the development and persistence of disruptive behavior disorders (Frick, 2012). There are still inconsistent results about the effects of physical punishment below the level of abuse (i.e., spanking) on later disruptive behavior, with some studies showing the impact of spanking on later externalizing problems (MacKenzie, Nicklas, Brooks-Gunn, & Waldfogel, 2015) and others showing that spanking has minimal effect on later externalizing behavior (Ferguson, 2013). Though the degree of negative impact of spanking is still in question, there appears to be consensus that there are really no benefits to spanking in relation to other forms of discipline.

Patterson, Capaldi, and Bank (1991) developed a theory to explain how the parent–child relationship may support development of antisocial behavior. Early mother–infant conflict (due to difficult temperamental characteristics in the child, poor parenting skills in the parent, or both) may begin a *coercive cycle* that is so clearly seen in families of older children with antisocial behavior problems. In the coercive cycle, a child's disruptive behavior is increased by removal of an aversive parent behavior, and vice versa. For example, the parent tells the child to pick up the toys (aversive stimulus), the child whines and cries (aversive stimulus), and the parent withdraws the request. Thus, the child's noncompliance is successful in removing the aversive stimulus and, consequently, is negatively reinforced. Moreover, the parent is negatively reinforced for withdrawing the request by the cessation of the child's whining. Patterson (1986) and Patterson, DeBaryshe, and Ramsey (1989) further suggested that ongoing poor management on the part of parents—characterized by ignoring or punishing the child's prosocial behavior, and positive or negative reinforcement of negative behavior—contributes to the child's increasing repertoire of aversive behaviors that leads to other negative outcomes. This theory has been updated to account for both parent and child characteristics, specific high-risk periods of development, environmental context, and life events that function as turning points in the developmental pathway (Besemer, Loeber, Hinshaw, & Pardini, 2016; Eddy, Leve, & Fagot, 2001).

In contrast, parental warmth and involvement in the lives (activities, friends, schoolwork, and behavior) of their children (also termed *supervision* or *monitoring*; see Chapter 1) are critical parenting skills that may reduce the risk of conduct problems (Kilgore, Snyder, & Lentz, 2000; Patrick, Snyder, Schrepferman, & Snyder, 2005; Robinson et al., 2015). The quality of warmth begins in early parent–child interactions and is seen through the attachment relationship. For example, Shaw, Owens, Vondra, Keenan, and Winslow (1996) examined the mother–infant attachment relationship in 6- to 11-month-old high-risk infants and followed the sample for 5 years. They found that 67% of children with disorganized attachment in infancy had aggressive problems at age 5, as opposed to only 17% of securely attached infants. The association between disorganized attachment and later aggression was particularly strong for children who were rated as temperamentally difficult at age 2. Other types of insecure attachment (i.e., avoidant, resistant) predicted aggression only when one or more other risk factors (e.g., maternal depression, life stress, criminality) were present at age 2. Disorganized attachment styles and low parental warmth are particularly related to children with CU traits (Pasalich, Dadds, Hawes, & Brennan, 2012). This initial attachment style predicts the amount of warmth and monitoring in the parent–child relationship, which then is related to development of disruptive behavior (Patrick et al., 2005). In addition, effective behavioral interventions with families of children with conduct problems initially focus on building warmth and monitoring in order to decrease problem behavior (Robinson et al., 2015).

Environmental Factors

A large number of environmental factors have been implicated in the development of antisocial behavior problems. Among the most important of these is low socioeconomic status (SES), or poverty, in part because it is highly correlated with a variety of other risk factors. Low SES sets up a context of multiple risk factors that have both direct and indirect effects on children's behavior. Combinations of factors associated with low SES (high levels of chronic stress, single parenthood, social isolation, an inadequately stimulating home environment, and diminished resources) can contribute to symptoms of depression in mothers, which in turn adversely influence parenting practices (Lavigne et al., 2012). Moreover, low-SES neighborhoods are often dangerous, exposing children to role models for violence and/or substance misuse, and also are associated with poor schools. The risk of developing externalizing problems as a result of community violence becomes even more significant with increasing physical proximity and exposure to the violence: hearing about it; seeing it happen to someone else; and the largest effect, being the direct victim of the violence (Fowler et al., 2009). These are similar to reactions children have after being exposed to stressful situations or trauma (see Chapter 15).

DEVELOPMENT OF DISRUPTIVE BEHAVIOR

Given the high rates of disruptive behavior in the normal population, and the prevalence and stability of serious conduct problems among children, how and when these disruptive behaviors originate, and why they persist and become more severe in some children while decreasing in others, are of interest. A developmental perspective suggests that there are critical periods in the course of development during which children are more vulnerable to adverse conditions and more likely to develop patterns of negative behaviors that have the potential to persist and become more severe with age (Wakschlag et al., 2007). The period of early childhood (between birth and about 3–4 years) when children typically first form affectionate bonds with significant adults and later begin to assert their independence is an example. During this period, children are particularly vulnerable to disruptions in their social environment (e.g., marital separation and divorce, parental illness, physical and/or emotional neglect, or poor-quality parenting). The two types of disruptive behavior that have received most attention in the empirical literature are noncompliance and aggression.

Noncompliance

Noncompliance is narrowly defined as not following directions, disregarding requests, or doing the opposite of what is asked (Forehand & McMahon, 1981). In contrast, *compliance* is viewed as "the capacity to defer or delay one's own goals in response to the imposed goals or standards of an authority figure" (Greene & Doyle, 1999, p. 133). Compliance and noncompliance are seen as soon as children have the cognitive capacity to understand parental requests and the physical capabilities to carry them out; however, noncompliance typically is perceived as a problem at about 2 years of age, when children begin to assert their needs for autonomy and control. Greene and Doyle suggest that compliance actually has its origins in self-regulation during infancy, as reflected in the infant's ability to manage discomfort, modulate arousal, and communicate his or her needs to caregivers. They point out that infants with poor emotional arousal have higher rates of noncompliance during the preschool years.

There is a transactional relationship among child temperament, attachment styles to parents, and compliance to demands. For example, Lickenbrock et al. (2013) found that toddlers who were securely attached to their mothers and low in temperamental reactivity were more compliant than children with more difficult temperaments and insecure attachment styles.

In addition, mothers who are able to allow their children a degree of control in the interaction by following their lead and modeling compliance to child requests have children who are more likely to be compliant to parental demands. Consistent with this work, Wahler, Herring, and Edwards (2001) suggest that child compliance follows from a pattern of social interaction in which positive social exchanges between mother and child (particularly child-initiated exchanges) rather than maternal demands and instruction are predominant. Kuczynski and Kochanska (1995) also found that parents' positive demands ("dos") with their toddlers were associated with increased child compliance and fewer behavior problems at age 5 years, whereas prohibitions ("don'ts") were associated with later noncompliance and more behavior problems.

Children's compliance–noncompliance has also been found to be mediated by situational factors and to change with age. The development of language, for example, facilitates more sophisticated methods of self-regulation as a child learns to label thoughts and feelings, to understand cause and effect, and to generate strategies for effective interaction (Greene & Doyle, 1999). Consistent with this idea, Kuczynski, Kochanska, Radke-Yarrow, and Girnius-Brown, (1987) found developmental changes both in mothers' strategies for gaining compliance and in children's responses to control. As the children's age increased, mothers relied less on distraction and more on explanations, bargaining, and reprimands. Among the children, *passive noncompliance* (ignoring the request) and direct defiance decreased with age, whereas negotiation increased. Results of a study by Kalpidou, Rothbaum, and Rosen (1998) are consistent with these data. They found that 18- to 24-month-old children's *aversive noncompliance* (e.g., whining, ignoring, and crying) decreased with age. In addition, difficulties in language development may lead to more noncompliance, if a child appears to not understand directions or seems to be frustrated with his or her inability to express him- or herself appropriately (Wakschlag et al., 2007).

Developmentally, there are different forms of noncompliance as toddlers and preschoolers assert themselves in the pursuit of autonomy. Rather than viewing a child as compliant or noncompliant, Belsky, Woodworth, and Crnic (1996) suggest that a distinction be made between *self-assertiveness* (e.g., saying "no" or "not right now") and *active defiance* (e.g., hitting, kicking, screaming, or having tantrums) in response to parental demands. Furthermore, parental control strategies can be viewed on several dimensions, such as simple control versus control plus guidance; psychological control versus behavioral control (Barber, Olsen, & Shagle, 1994); or control in the service of promoting behavior that is beneficial to the child or others versus control for its own sake (Kuczynski & Kochanska, 1995).

Since most children are noncompliant to some extent, documenting differences between *typical* and *deviant noncompliance* is important. Typical child compliance to maternal commands ranges from about 32% for 2- to 3 year-olds to 78% for 4- to 5-year-olds, but also depends on the types of commands given (e.g., vague or clear, getting the child's attention or not) (Brumfield & Roberts, 1998; Forehand, Gardner, & Roberts, 1978). In contrast, children referred to clinics for treatment of noncompliance exhibit compliance to only about 41% of parental commands and tend to use higher levels of "unskilled" noncompliance such as being more passive or sneaky, confrontational, and/or emotional (Forehand et al., 1978; Johnston, Murray, & Ng, 2007). Although these differences are significant, there is considerable overlap between children referred for treatment and nonreferred children, especially in those studies based on behavior observation. There is less overlap when one looks at parent questionnaire data: Parents often perceive their children as being deviant, even though behaviorally these children cannot be distinguished from typical children and their report is often discrepant from teacher report of behaviors (Lavigne, Dahl, Gouze, LeBailly, & Hopkins, 2015). Although it may be that different reporters are seeing situational differences in behaviors, other factors that contribute to negative parental attitudes include parental stress and family conflict.

Differences in parenting styles of nonreferred and clinic-referred parents have also been documented. Mothers of clinic-referred children tend to issue more commands and use more criticism than do mothers of non-clinic-referred children (Forehand, King, Peed, & Yoder, 1975; McMahon, Long, & Forehand, 2010). Furthermore, a clinic-referred parent frequently interrupts a child's behavioral sequence by repeating the command, giving help, retrieving the command, and so forth, so that compliance on the child's part is not possible. Thus, to some extent, "problem" noncompliance may be a function of the parents' behavior and how their behavior has adapted to an uncooperative child.

Aggression

Aggression includes physical aggression against another person (hitting, kicking, biting, fighting), verbal aggression (threats, tattling, teasing, name calling), and nonverbal or symbolic aggression (threatening gestures, chasing others, making faces). Loeber and Hay (1997) describe the development of aggression beginning with expressions of frustration and rage seen in very young infants, both male and female. By age 3 months, an infant makes adult-like facial expressions of anger. By the second half of the first year, the child begins to express real angry feelings as he or she learns about cause and effect. After 12 months, gender differences in aggression are apparent (Weinberg & Tronick, 1997). Boys are more emotionally labile and express negative emotions at higher rates than girls. During the second and third years, observed temper tantrums and aggression toward peers and adults are about equal between boys and girls, although parents report more aggression for boys than for girls. Aggression at this age tends to be *instrumental* (i.e., used to obtain a desired object).

During late preschool and into elementary school, gender differences become quite marked. Boys exhibit higher rates of *instrumental or proactive aggression,* unprovoked aggression used for personal gain (Card, Stucky, Sawalani, & Little, 2008), whereas girls tend to engage in more indirect, *relational aggression* (e.g., alienation, ostracism, character defamation; Crick & Grotpeter, 1995; McEachern & Snyder, 2012). Children with higher rates of physical aggression are also more likely to show higher rates of other externalizing problems, such as verbal aggression, more problematic peer relations, and lower prosocial behavior (Card et al., 2008). Overall, as interpersonal skills begin to develop, typically between preschool and elementary school, aggression toward peers decreases. Both boys and girls, however, continue to show high levels of aggression with siblings, especially dyads of the same gender. Although this is not necessarily seen as maladaptive, there is clear evidence that highly conflictual sibling relations increase the risk of aggression in the school setting (Stormshak, Bellanti, Bierman, & the Conduct Problems Prevention Research Group, 1996).

Although adult reactions to a child's aggressive outbursts provide feedback to the child about the efficacy of aggressive behaviors, early peer relationships are also important in teaching children to master these behaviors and to cope with outcomes of aggressive interactions. Social-cognitive skills, such as *alternative-solutions thinking* (i.e., the generation of alternative solutions to a social problem, such as conflict over a toy) and *consequential thinking* (i.e., the accurate recognition of the likely results of different social behaviors, such as hitting), increase with age. Deficits in these areas are found more frequently in aggressive than in nonaggressive boys (e.g., de Castro, Veerman, Koops, Bosch, & Monshouwer, 2002; Dodge & Coie, 1987). Deficits in *social information processing*, or interpreting cues from peers, have been shown to distinguish children with disruptive behavior problems from typical controls (Dodge, Bates, & Pettit, 1990). Children with conduct problems tend to search for fewer cues before interpreting social situations, to overattribute hostile intent to ambiguous situations, and to generate and select aggressive strategies for coping, compared to children without conduct problems (de Castro et al., 2002; Dodge et al., 1990; Toblin, Schwartz, Gorman, & Abou-ezzeddine, 2005). These cognitions then lead to *reactive* or *retaliatory aggression*, in which aggression is seen as a defensive reaction to a perceived threat. The result of these deficits is lower social competence and problems with social/peer relationships, such as rejection by peers, that exacerbate deviant behavior; they probably also help to explain why aggressive youngsters tend to select other aggressive children as peers (Hoglund, Lalonde, & Leadbeater, 2008; Lansford, Malone, Dodge, Pettit, & Bates, 2010). Affiliation with deviant peers is in turn associated with increases in aggressive and antisocial behavior, and accounts for much of the continuity between childhood problems and adolescent offending (Chen, Drabick, & Burgers, 2015; Ingoldsby et al., 2006; Trudeau, Mason, Randall, Spoth, & Ralston, 2012).

Physical aggression is the best predictor of the progression to more severe problems, including CD and juvenile delinquency, as a child moves through childhood and into adolescence (Loeber & Burke, 2011; Loeber et al., 1995). In a longitudinal study, between 82 and 90% of adults who met criteria for ASPD in later adolescence or adulthood were diagnosed previously with CD, and those diagnosed with ODD were more likely to develop ASPD when also diagnosed with CD (Loeber, Burke, & Lahey, 2002). Those who progressed to ASPD were also those who were more violent toward others. These findings support the covert pathway model of Loeber et al. (1993), which suggests the development of aggression progresses from less severe to more violent and delinquent behavior in adolescence, then to antisocial behavior as adulthood.

ASSESSMENT OF DISRUPTIVE BEHAVIOR

When children are referred for difficulties with disruptive behaviors, an important task for the clinician is to differentiate between children whose conduct problems are likely to persist and those whose difficulties are more likely to be transient. This involves careful assessment of the factors listed in Table 10.1. The nature and degree of family dysfunction are of critical importance for assessment (McMahon & Frick, 2005); parental psychiatric adjustment, relationship instability/divorce, and especially parent socialization practices should all be assessed. Socialization practices include the extent of the parents' involvement in their child's activities, supervision or monitoring of the child, and discipline methods. It is important to obtain a comprehensive view of the intensity, frequency, and duration of the child's behavior problems across settings and from the perspective of different individuals (Barry, Golmaryami, Rivera-Hudson, & Frick, 2013). Consistent with this approach, we follow the Comprehensive Assessment-to-Intervention System (CAIS) framework focused on the assessment of disruptive behaviors.

Step 1: Initial Contact

At the time of the initial referral, parents should be asked to complete a general questionnaire giving demographic information and their perception of the problem (see our General Parent Questionnaire, Appendix B). Broadband questionnaires such as the Child Behavior Checklist (CBCL; Achenbach, 2013; Achenbach & Rescorla, 2001a, 2001b) or Behavior Assessment System for Children, Third Edition (BASC-3; Reynolds & Kamphaus, 2015), include normed ratings of disruptive behaviors along with other child difficulties. These questionnaires can also be helpful for assessing possible comorbid internalizing or externalizing issues. The Eyberg Child Behavior Inventory (ECBI; Eyberg & Pincus, 1999) focuses on the extent of the child's behavior problems (from the parents' point of view) relative to other children of the same age. It is important to have both parents complete each measure, because there are often significant differences between parents' perceptions of the severity and frequency of a child's problems. In order to assess the potential for CU traits, the Inventory of Callous–Unemotional Traits (ICU; Frick, 2004) can be administered. This measure has been shown to predict behavioral and academic difficulties in children and includes youth, parent, and teacher reports; three subscales assess levels of Callousness, Uncaring, and Unemotional responding (Ciucci, Baroncelli, Franchi, Golmaryami, & Frick, 2014; Kimonis, Fanti, et al., 2014; Kimonis et al., 2015).

Parents of children under age 12 complete the Parenting Stress Index, Fourth Edition (PSI-4; Abidin, 2012), and parents of children over 12 complete the Stress Index for Parents of Adolescents (SIPA; Sheras, Abidin, & Konold, 1998) to provide information about the marital/couple relationship, parental depression, child temperament, and life stress. The Parenting Alliance Measure (PAM; Abidin & Konold, 1999) can also be used to assess how the parents work together in parenting the child. The clinician may also ask parents to complete questionnaires such as the Dyadic Adjustment Scale (DAS; Spanier, 1976) and the Beck Depression Inventory–II (BDI-II; Beck, Steer, & Brown, 1996) to assess other aspects of family functioning relevant to the child's presenting problems (see Appendix A for descriptions). The Home Situations Questionnaire (HSQ; Barkley, 2013b) gives information on the number of problem settings (e.g., playing alone, when visitors are in the home, when parents are on the telephone, at recess, when arriving at school) and the severity of the problems. In addition, the clinician should ask the parents to keep a Daily Log of the child's negative behaviors (see Chapter 2 and Appendix B). This record helps the clinician determine what the child is actually doing (in contrast to what the parents think he or she is doing), and gives preliminary information about the frequency and intensity of the problem behaviors. The Daily Log also provides a baseline against which to measure changes in the child's behavior with treatment.

Step 2: Initial Intake Interview

It makes sense for a child with disruptive behavior to be included in the initial interview with the parents. This enables the clinician to observe parent–child interactions and ensures that everyone hears the same information. We have found that children who are disruptive have a good idea of the problems and often offer their personal opinions about topics the parents bring up. Parents are informed of this arrangement during the initial phone contact and are asked to make a list of the child's positive qualities and behaviors, along with present difficulties. During the interview, parents are asked to refer to this list when talking with the clinician about the child's troublesome behaviors in order to balance the conversation; if they do not do so, the clinician can ask about the child's strengths directly. If parents are uncomfortable with the child being present, or if the child's behavior is likely to be too disruptive, a separate parent interview can be scheduled and the child may be seen at a later time. The interview with the child then begins with the parents present, and with a joint discussion of both the problems of concern and the child's positive qualities.

Parent Interview

It is important that both parents attend the initial interview whenever possible. As noted earlier, parents often have very different perceptions of a child's behavior and may handle discipline very differently (and inconsistently). The clinician should determine whether this is a source of conflict for the parents that will need to be resolved with treatment. Having both parents present at the initial interview also increases the chances that both of them will participate in treatment. Although the presence of both parents is not always necessary for effective treatment (Haine-Schlagel & Walsh, 2015), the cooperation and support of the absent parent may ensure that interventions are more successful. In addition, single parents, parents with their own psychopathology, and parents facing current life stressors may find it more difficult to participate in treatment (Haine-Schlagel & Walsh, 2015). In these cases, it may make sense to address these issues before treatment begins or concurrently with treatment (e.g., a parent seeking his or her own treatment; a single parent bringing a close friend, relative, or regular child care provider to attend treatment sessions; or having a parent wait to start treatment until current stressors have abated).

During the parent interview the following areas should be assessed:

1. *Developmental history and current status*. The clinician should focus on the child's early development, particularly in regard to issues of control and independence, because the early years are often when disruptive behaviors originate. The child's early medical history should also be explored, as parents often have difficulty providing effective and consistent discipline for children who have been seriously ill. As an example, a clinician was unable to test a 4-year-old girl for intellectual problems because her behavior was so out of control. Her parents admitted that they had been afraid to discipline her, because the first time they had sent her to her room for being bad, she had had a seizure! Questions should also be asked about the child's temperamental characteristics as manifested during infancy and early childhood. Current developmental status is important to assess, particularly for young children. Delays in language, cognition, or other areas can exacerbate children's disruptive behavior and influence the focus of treatment.

2. *Parent and family characteristics*. Information gathered from the screening instruments provide a basis for discussion of these issues. If, for example, marital/couple conflict, maternal depression, or other types of psychopathology appear to be problems, these should be addressed directly; the clinician should assess the severity and the extent to which they are likely to interfere with treatment for the child's problems. In some cases, marital/couple conflict and parental psychopathology decrease as the child's behavior improves, although, in other cases, these problems are associated with premature termination of treatment or ineffective treatment. The parents should be advised about the necessity of seeking treatment for these problems prior to or in conjunction with treatment for the child's conduct problems.

3. *Parenting styles and techniques*. General information about the parents' attitudes and expectations for themselves as parents and for their child can inform the clinician about aspects of the parent–child relationship that affect the parents' abilities to follow through with treatment. Asking questions about the parents' own parenting history is often revealing. It is also critical to assess parents' responses to their child's behavior as it occurs in day-to-day life. Barkley (2013b) suggests assessing specific situations (e.g., playing alone or with other children, mealtimes, visits to others, bedtimes, or bath times) that may involve misbehavior by asking parents: (a) "Is it a problem?"; (b) "What does the child do?"; (c) "What is your response?"; (d) "What does the child do next?";

(e) “What is the outcome of the interaction?”; (f) “How often do problems occur in this situation?”; and (g) “How do you feel about these problems?” Finally, parents may be asked to rate the severity of the problem on a scale of 1 (*no problem*) to 9 (*severe problem*). See Table 9.2. The HSQ (Barkley, 2013b) or the Daily Log can help to guide and possibly shorten the interview time.

Another method of getting this type of information is to ask parents to describe in detail their typical daily routines. This usually reveals the situations that are most problematic for the parents, and it gives the clinician the opportunity to determine what the child does and how the parents handle it. This method also reveals the “rhythm” of the family’s life and the strengths and weaknesses of the child and parents. The clinician will need to ask very specific questions, such as “Who gets up first?”, “What happens next?”, “Who fixes breakfast?”, “What time is dinner usually served?”, and so on, in order to get the necessary detail. Specific questions about the antecedents and consequences of the child’s disruptive behavior should be asked. Because negative behavior is maintained, strengthened, or decreased by its consequences, identification and manipulation of these consequences will be an important aspect of treatment. Likewise, environmental conditions can set the stage for increased negative behavior (e.g., parents coming home tired and trying to fix dinner at a time when the child most needs parental attention) and can be an effective focus for treatment. Parents’ attempts to manage the child’s disruptive behaviors should be examined in detail in order to determine the various techniques the parents have tried and their relative effectiveness. Parents typically indicate that they “have tried everything, and it doesn’t work.”

4. *Recent and ongoing stresses.* A simple question such as “Has anything happened in your family lately that might be related to your child’s behavior problems?” often reveals startling and important information. It is not unusual for a parent to mention in an offhand manner that he or she has just lost a job, or an important family member has recently died. Sources of ongoing stress (financial problems, job-related stress, stressful family relationships, etc.) are likewise important to assess, as these will influence treatment effectiveness.

5. *Persistence of problem behaviors.* Specific information about the child’s problem behaviors is obtained when the parents are asked about a typical day. However, the clinician should also assess the persistence of the behavior and the number of situations in which it occurs. Children who are exhibiting negative behavior at home but nowhere else have a better prognosis than children who are having conduct problems in school and in the community, as well as at home. Moreover, children for whom disruptive behavior has been a characteristic pattern for a long time are more difficult to treat than those whose disruptive behavior is relatively recent.

6. *Developmental pathways.* Age of onset of the behaviors is very important; behaviors tend to progress from less to more severe, and greater severity and persistence

is linked to childhood onset in contrast to adolescent onset of problems (Barry et al., 2013). In addition, the clinician should gather information throughout the interview about potential callous–unemotional (CU) traits, particularly for children that present with childhood onset. Overall, children with CU traits tend to be more fearless, are less likely to become upset by seeing someone else distressed, and are not as sensitive to punishment. In contrast, those with conduct problems without CU tend to have deficits in verbal intelligence, show more impulsivity and reactive emotional responses, and are highly reactive to the distress of others and negative stimuli (Barry et al., 2013; McMahon & Frick, 2005).

Child Interview

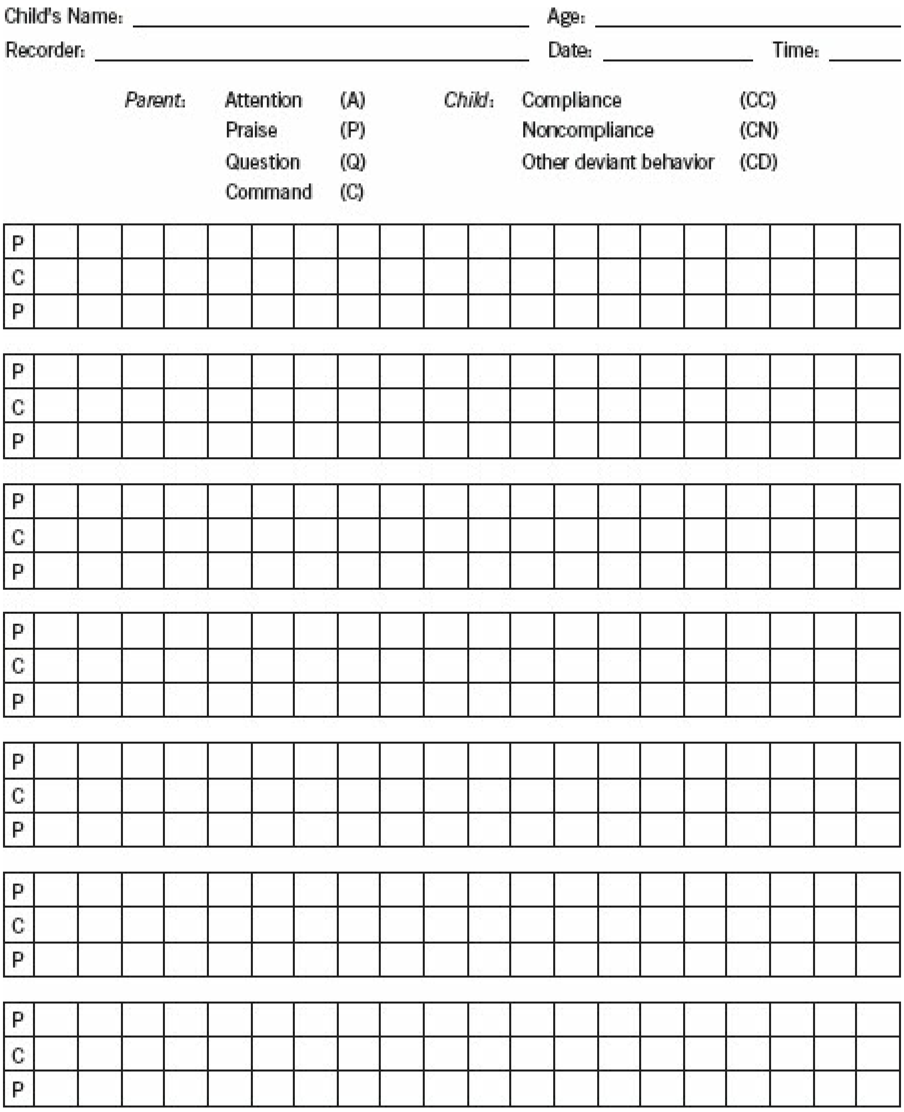
Having the child present while the clinician talks with the parents provides an opportunity to begin observing the child's behavior and assessing his or her perceptions of the problem relative to those of the parents. Age-appropriate toys should be provided for the child, and the clinician can informally assess the child's attention span and ability to play alone, as well as the parents' management skills. The clinician can also begin to model appropriate methods of interacting with the child as the situation permits. A short period of time alone with the child following the interview with the parents is always a good idea, as this gives the clinician the opportunity to assess the child's behavior with someone other than the parents, and to determine more closely the child's perceptions of the problem and of his or her parents. An interview with the child, however, may or may not be useful with regard to content, because many children are reluctant to talk about their behavior problems and may have a more positive view of their behavior than do others (David & Kistner, 2000; McMahon & Wells, 1998). With a child age 6 or older, an attempt should be made to assess the child's perceptions of his or her role in the disruptive behavior, its consequences, and/or setting conditions. In addition, sometimes children may report more covert behaviors that others do not know about. General areas to assess include family ("What do you like best about your father, mother, brother, or sister?", "What do you like least?"), friends ("Who is your best friend?", "What do you like to do with him or her?"), school ("What do you like best/least about school?", "What is your best/worst subject?"), and personal strengths and weaknesses ("What do you like to do best/least?", "What are your favorite games/sports?", "What do you like best about yourself?").

Step 3: Observation of Behavior

Direct observation of the parent–child interaction is a central feature of the assessment of conduct problems, and a variety of systematic methods have been used to observe parent–child interactions and reactions to compliance tasks (Shriver, Frerichs, Williams, & Lancaster, 2013). Since it can be time consuming to observe a child and/or family in natural settings (e.g., home, school, playground), most observations are done in the clinic; studies have shown that these analogues appear to be valid indicators of family interactions (Shriver et al., 2013). Barkley (2013b) suggests having the parent and child play together "as they would at home" for about 5 minutes, then giving the parent a list of 10 simple tasks (e.g., "Stand up," "Open the door," "Take off your shoes," "Do these math problems") to do with the child. The observer records the parent behavior (command, repeated command), the child's response (compliant, noncompliant, negative), and the parent's reaction to the child's behavior (attend or praise, negative) for about 10 minutes. McMahon and Forehand (2003) instruct parents to play with the child in two situations for 5 minutes each. During this special time, or the "Child's Game," the child is allowed to determine the play activities and rules; during the "Parent's Game," the parents determine the rules and activities. Behavior is recorded as it occurs in 30-second intervals. Coded parent behaviors include rewards, attends, questions, commands, warnings, and time out. Coded child behaviors include compliance, noncompliance, and deviant behavior. The Dyadic Parent–Child Interaction Coding System, Fourth Edition (DPICS-IV; Eyberg, Nelson, Ginn, Bhuiyan, & Boggs, 2013) has also been used to observe parent–child interactions during three 5-minute situations (Child-Directed Interaction, Parent-Directed Interaction, and Cleanup) that vary in the degree of parental control required (Eyberg, Chase, Fernandez, & Nelson, 2014). Coded behaviors include parent and child verbalizations, vocalizations (e.g., whining, yelling), positive or negative physical touch, parent commands and praise, and child compliance. To date, this is the most comprehensive system of measuring interactions between the parent and child in the clinic setting.

We use a modification of McMahon and Forehand's (2003) observational system and the DPICS-IV. We record parental commands (C), questions (Q), praise (P), and attention (A), and child compliance (CC), noncompliance (CN), and other deviant behavior (CD) as they occur in two 5-minute situations, the Child's Game and the Parent's Game. Age-appropriate toys are provided for younger children, whereas older children and their parents are asked to play a game together and to solve a family problem (e.g., to plan a family vacation). Figure 10.1 illustrates the data sheet we use.

Parent–Child Interaction Data Sheet



Child's Name: ________________________ Age: ________________

Recorder: ________________________ Date: ________ Time: ____

Parent:	Attention	(A)	*Child:*	Compliance	(CC)
	Praise	(P)		Noncompliance	(CN)
	Question	(Q)		Other deviant behavior	(CD)
	Command	(C)			

P																				
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FIGURE 10.1. Data sheet for recording parent–child interaction in the clinic.

From *Assessment and Treatment of Childhood Problems* (3rd ed.) by Carolyn S. Schroeder and Julianne M. Smith-Boydston. Copyright © 2017 The Guilford Press. Permission to photocopy this material is granted to purchasers of this book for personal use or use with individual clients (see copyright page for details). Purchasers can download enlarged versions of this material (see the box at the end of the table of contents).

Although observations typically take place in the clinic, home or school observations are also useful if the clinician needs a more complete picture of the child's functioning. In the school, the observer can simply keep a running account divided into 1-minute segments (this indicates when in the observation period a behavior occurred and for how long) of the child's behavior and responses to it; or the observer can focus on the frequency, antecedents, and consequences of target behaviors if these are identified in advance. It is usually a good idea also to observe a randomly selected classmate, so the target child's behavior can be evaluated relative to others in the same setting. Observation systems designed for the classroom are included in both the CBCL (CBCL

—Direct Observation Form; Achenbach, 2013; Achenbach & Rescorla, 2001a, 2001b) and the BASC-3 (Student Observation System [BASC-3 SOS]; Reynolds & Kamphaus, 2015). If appropriate, home observations should occur at times identified as being problematic for families. Close to dinnertime is typically a good time to observe negative behaviors. Taking a running account of types of interactions is usually the most efficient method to collect data in this setting.

Step 4: Further Assessment

After collecting this information, the clinician should have a good idea of the nature and severity of the child's conduct problems. Further assessment is needed if there are concerns about the child's developmental status or performance in school, or about a parent's ability to meet the demands of the treatment program. Because learning problems are positively associated with conduct problems in school-age children, psychoeducational assessment may be necessary. If the child's behavior is a problem in both the school and at home, permission should be obtained to contact the child's teacher, and the Teacher Questionnaire (see Appendix B) can be sent. In addition, the Sutter–Eyberg Student Behavior Inventory—Revised (SESBI-R; Eyberg & Pincus, 1999), the School Situations Questionnaire (SSQ; Barkley, 2013a), the CBCL—Teacher's Report Form (CBCL-TRF; Achenbach, 2013; Achenbach & Rescorla, 2001a, 2001b), and/or the BASC-Teacher Report (Reynolds & Kamphaus, 2015) can be helpful in getting the teacher's perspective of the problem behavior (see Appendix A).

Step 5: Collaboration with Other Health Care Professionals

Children with disruptive behaviors may have significant developmental or medical problems that require the use of medication (e.g., seizures). In these cases, contact should be made with the child's physician to discuss the proposed treatment program and to ensure appropriate coordination of medical and behavioral treatment. Also, children who engage in severely aggressive behaviors that are potentially dangerous to themselves or others may need to be referred to an inpatient facility or a therapeutic classroom until their coercive behaviors are brought under better control. In these cases, behavioral management training would also be recommended for the parents.

Step 6: Communication of Findings and Treatment Recommendations

The clinician's understanding of the nature, etiology, and severity of the child's negative behavior, as well as potential treatment approaches, should be discussed with the parents. A clear understanding of these issues, especially of how the negative behavior fits into the child's developmental picture, will help the parents and the child trust the clinician and maximize the possibility of their cooperation with treatment. Some discussion about the prognosis for the child's problem is also warranted, although this should be done sensitively (particularly when the child is young), and balanced with validation of the parents for their interest in seeking help. In some cases, it is clear that a course of parent training will eliminate the child's problem behaviors. In other cases, however, the prognosis is less positive. The risk factors for persistent conduct problems are well known, and these should be shared with the parents. In particular, it is more difficult to intervene when a child is older; when the antisocial behavior has begun early in life; when it is severe, frequent, and occurs across situations; and/or when the parents or environmental characteristics exacerbate the child's problems. However, the treatment of conduct problems has improved over time, and there are now effective programs even for adolescents with the most severe conduct problems (Henggeler & Sheidow, 2012; McCart & Sheidow, 2016).

TREATMENT OF DISRUPTIVE BEHAVIOR

Clinical and developmental research support the idea that contingent, appropriate parental responses to child behaviors constitute a key factor in the development and maintenance of positive child behaviors. This research has stimulated the development of programs designed to train parents in principles of social learning and to increase effective parent–child interaction and child management skills. The most efficacious programs for treating disruptive behavior include parent management programs and programs directed at improving children's skills, including social skills training and cognitive skills training (Battagliese et al., 2015; Eyberg, Nelson, & Boggs, 2008). However, the first line of treatment, particularly for young children, is parent training, and then adding child interventions for those children that may benefit from skill building (Comer, Chow, Chan, Cooper-Vince, & Wilson, 2013; Eyberg et al., 2008). These approaches, as well as pharmacotherapy, are discussed briefly here as they apply to intervention with the child, the parents, the environment, and/or medical/health issues, according to the CAIS framework. However, the primary focus of this section is on behavioral parent training, as this approach has accumulated the most data about effectiveness.

Intervention with the Child

Social Skills Training Programs

Social skills training programs are based on the assumption that disruptive behaviors are learned and that faulty learning leads to deficits in the social skills necessary for interacting effectively and appropriately with others. Group assertiveness training has been found to be effective for increasing prosocial behaviors with peers and decreasing aggressiveness in adolescents, but there is limited information about the long-term effectiveness of the program (Eyberg et al., 2008).

Cognitive Skills Training Programs

Similarly, children with disruptive behavior have demonstrated deficits in social cognitions. They attend more to aggressive stimuli, overattribute hostile intent, lack empathy, are deficient in social problem-solving skills, and/or lack awareness of the consequences of their behaviors. Cognitive skills training programs are aimed at remediating these deficits. Anger control training (through the Coping Power program) targets these negative cognitions specifically and uses vignettes and problem solving to help children think about and practice different ways to respond to different situations (Lochman, Boxmeyer, Powell, Barry, & Pardini, 2010). Although these programs improve children's social-cognitive skills, the effect is stronger when a parent component is used in conjunction with the child component, particularly for decreasing covert delinquency and substance use (Lochman & Wells, 2004).

Research by Kazdin (2010) and Webster-Stratton and Reid (2010) indicates that cognitive-behavioral skills training for children combined with parent management training is more successful across a wider range of variables at home and with peers (but not necessarily at school) than either component alone. The Incredible Years intervention described by Webster-Stratton and Reid (2010) involves a comprehensive videotaped program targeting the following components: (1) controlling anger; (2) problem solving; (3) making friends; (4) coping with rejection and teasing; (5) paying attention to teachers; (6) finding alternative solutions to problems; (7) cooperating with parents and teachers; and (8) self-talk as a coping strategy. When implemented alone, this program resulted in modest improvement in children's behavior, which suggests that it may be useful when parents cannot, or will not, participate in a child's treatment, but more changes were found in conjunction with the parent program. In addition, the FAST Track Prevention Trial for Conduct Problems (Conduct Problems Prevention Research Group, 2010), showed that identifying children early (during kindergarten) and intervening with the child, parents, school, and peers decreased aggression and increased prosocial behavior and academic engagement.

Intervention with the Parents/Changing the Consequences of the Behavior

Behavioral Parent Training

Behaviorally based parent–child interaction training programs are the most common and successful treatment approaches for disruptive behavior among young children, and most parents report high satisfaction with these programs (Eyberg et al., 2008; Rundberg-Rivera et al., 2015). Moreover, parent training is compatible with the current demands of the mental health care delivery system (i.e., managed care insurance) in that it is cost-efficient, time-limited, and empirically validated, and it provides for careful documentation of treatment gains (Goldfine, Wagner, Branstetter, & McNeil, 2008; Honeycutt, Khavjou, Jones, Cuellar, & Forehand, 2015; Michelson, Davenport, Dretzke, Barlow, & Day, 2013). Parent training programs are effective whether administered individually, in groups, or by parents to themselves, although brief in-person consultation with a therapist enhances the effectiveness of self-administration (Eyberg et al., 2008; Morawska, Stallman, Sanders, & Ralph, 2005). There are also effective online parent training programs being developed (e.g., parent–child interaction therapy [PCIT]), with varying degrees of use of video modeling, individualized support with reminders or coaching and feedback, and group discussion boards (Comer, Furr, Cooper-Vince, Madigan, et al., 2014; Nieuwboer, Fukkink, & Hermanns, 2013). Given that attendance in parent training ranges from 35 to 50% and online attendance ranges from 42 to 99%, it may be a way to reach out to more families that drop out of face-to-face sessions (Breitenstein, Gross, & Christophersen, 2014). Parent training has also demonstrated effectiveness in decreasing child problem behaviors and maintaining these treatment gains for at least 1–5 years after the completion of treatment (Eyberg et al., 2008; Goldfine et al., 2008). Intervening early with a family could have a larger benefit of decreasing problem behavior before it has had a chance to increase in severity and lead to delinquency and later crime (Piquero, Farrington, Welsh, Tremblay, & Jennings, 2009).

Parent training is based on the assumption that the child's behavior (typical, deviant, or delayed) is related to past and current interactions with significant others, particularly parents, and that the behavior of these significant people must be changed in order to change the child's behavior (Bijou, 1984). All of the parent training programs are based on aspects of social learning that balance strategies of warmth (e.g., praise, rewards) with aspects of control (e.g., time out, commands), which are characteristics that define *authoritative parenting* (see Chapter 1). These factors are also consistent with effective aspects of evidence-based parenting programs, including (1) praise, (2) time out, (3) tangible rewards, (4) commands, (5) problem solving, (6) differential reinforcement, (7) cognitive strategies, and (8) psychoeducation about the disorder (Chorpita & Daleiden, 2009). In addition, parenting programs are used across different development stages and adjust warmth and control strategies based on the challenges at each stage. They are usually grouped into programs for young children (ages 2–8; e.g., PCIT, Helping the Noncompliant Child), school-age children (ages 6–12; e.g., Defiant Child, Modular Approach to Therapy for Children [MATCH), and adolescents (ages

13–18; Defiant Teen). See end of chapter for helpful resources.

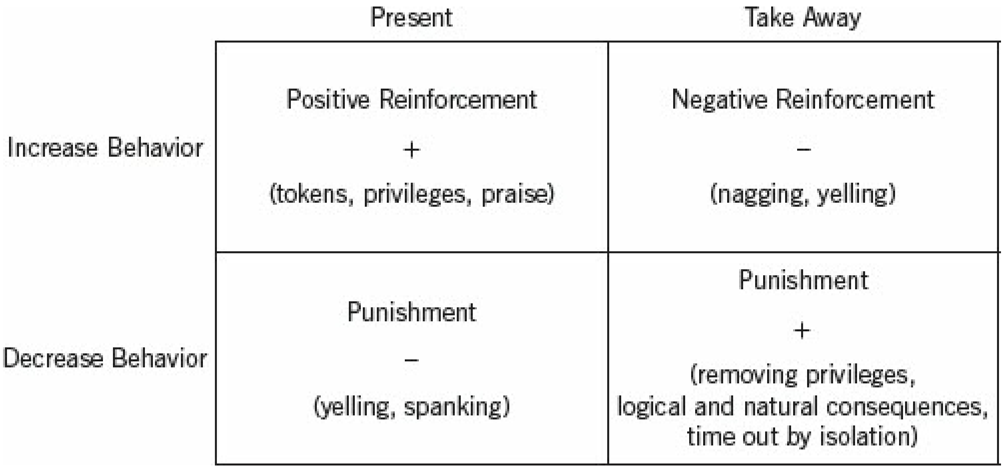
The Parent Training Program

A highly effective program for younger children (ages 2–8 years) that can be adapted for school-age children (ages 8–12 years) was initially developed by Hanf (1969) and modified by Eyberg (e.g., Eyberg et al., 2014) and others (Barkley, 2013b; McMahon & Forehand, 2003). The PCIT program described by Eyberg and colleagues (2014) emphasizes teaching parental responsiveness and improving the quality of the parent–child relationship through the use of behavioral techniques. This is a two-part program. The first part teaches parents how to attend to and praise their child's appropriate behavior, with the goal of strengthening the parent–child bond, increasing positive parenting, and improving the child's social skills. This is called child-directed interaction (CDI) and resembles traditional play therapy. Once this skill is polished (indeed, overlearned), parents are taught to give simple, clear commands and to use time out by isolation. This parent-directed interaction (PDI) phase of treatment resembles child behavior therapy; it focuses on improving parents' expectations, ability to set limits, consistency, and fairness in discipline, and on reducing child noncompliance and other negative behavior. The parents also learn to generalize their new skills to specific problem situations, such as visiting friends or shopping. In addition, if children are having behavioral difficulties in school, it is important for parents to connect with day care or school personnel and develop a coordinated plan of reinforcement and consequences across home and school to develop consistency in responding to the child's behavior (see Daily Report Card, Chapter 9). Although the program is most suited to younger children, it can be modified for older children by adding features such as token systems (Barkley, 2013b; see Chapter 9) or contingency contracting and family problem solving (Barkley & Robin, 2014; Forgatch & Patterson, 2010).

The following is a brief outline of how we have used this program.

Step 1: Attending and Praising

In the first session, the clinician explains the rationale for the parent training program and presents basic social learning principles. We emphasize how children learn by drawing a diagram for parents (Figure 10.2). Simply put, behavior can be increased or decreased by providing something or taking something away. If, contingent on a specific behavior, positives are presented (positive reinforcement) or negatives are taken away (negative reinforcement), that behavior will increase. Similarly, if negatives are presented (punishment) or positives are taken away (time out, response cost), the behavior will decrease. Next, we present developmental expectations for children at the child's age, with a discussion of the child's strengths and weaknesses within this developmental framework. Specific behaviors are targeted to be increased and decreased.



	Present	Take Away
Increase Behavior	Positive Reinforcement + (tokens, privileges, praise)	Negative Reinforcement – (nagging, yelling)
Decrease Behavior	Punishment – (yelling, spanking)	Punishment + (removing privileges, logical and natural consequences, time out by isolation)

FIGURE 10.2. How children learn.

The parent training program is based on a system of presenting and taking away positives. The rationale for attending to and praising is discussed as one way of presenting positives. There are many reasons why parents should learn to attend to and praise the child's appropriate behavior. These are described in Figure 10.3, which is a handout for parents. It should be emphasized that simply eliminating negative behaviors is rarely successful, because the child will find some other way (usually aversive) to gain parental attention. Teaching appropriate behaviors and behaviors that are incompatible with aversive behaviors effectively fulfills this need. Moreover, the technique of following, attending to, and praising shared positive experiences is remarkably similar to observations in the research literature of maternal responsivity, or *synchrony*, which has been demonstrated to be related to increased levels of child communication competence, self-control, and compliance (Lindsey, Cremeens, Colwell, & Caldera, 2009). These skills also provide the basis for *active listening*, which is crucial to good communication with adolescents. Teaching following, attending to, and praising skills to parents also helps break the aversive parent–child interaction cycle that is common when a child has been exhibiting high levels of disruptive behavior. In fact, research has shown that children with CU traits respond better to rewarding behavior such as praise than to time out (Frick et al., 2014; Hawes & Dadds, 2005). Finally, parents should know that time out will not be effective unless the child's overall experience is largely positive. Time out works by removing the child from opportunities to receive positive reinforcement, which is only possible if the child experiences large doses of reinforcing interactions with family members. If these interactions are largely negative, time out may be experienced as a relief by the child and actually serve as a reinforcer for disruptive behavior.

Child’s Game

The goal of the “Child’s Game” is to increase your child’s appropriate and desired behavior by following, attending, and praising it. The benefits of the Child’s Game for both you and your child are many.

- **It will help your child learn the behaviors that you find acceptable and appropriate. If you want to stop certain behaviors, it is important to teach your child what behaviors you *do* want.**
- **Following your child’s lead by attending to and praising appropriate behavior sets the stage for a pleasant, positive relationship. This will increase the likelihood that your child will naturally want to please you.**
- **You will learn to monitor your child’s behavior more accurately, so that you can be more consistent in both rewarding good behavior and ignoring or punishing undesirable behavior.**
- **Children learn by watching their parents. The Child’s Game will teach your child how to follow, attend, and praise behavior they like in other people. Your child may even begin to praise your behavior!**
- **Punishment of undesirable behavior works best when there are many positive interactions with the child. A positive relationship also decreases the need for punishment!**
- **The skills of reflective listening, along with attending and praising your child’s behavior, are ones that can be used throughout your child’s development. These skills let your child know that you are interested in what he or she is doing or thinking, and therefore your child will naturally want to share more with you. What you have to say will also become more important to your child.**
- **Your child will feel good about him/herself, because you have let the child know what you like about him or her.**

Steps for Success

1. ***Time.* Find a time every day when you can give full attention to your child. It is often best to choose a regular time of the day so that it becomes a part of your daily routine. Plan for 5 to 20 minutes. The use of a timer also helps, especially when you are first learning to follow, attend, reflect, and praise.**
2. ***Child’s Activity.* Allow your child to choose the activity. Activities such as building blocks, drawing, puzzles, or Legos that allow free expression are good. Try to avoid games that require following rules such as table games. Avoid reading stories. Let your child know that this is his or her special time and that you will play with the child for the next 5–20 minutes.**
3. ***Follow.* This simply means that you should watch closely and with interest what your child is doing. You should not be reading the newspaper or thinking about something else during this time.**
4. ***Attend.* Think of yourself as a baseball announcer on the radio. You want to give an enthusiastic and detailed running commentary on your child’s activity. You can describe:**
   - ***Your child’s activity:***
     “You are building a high tower.”
     “You’re driving your car very carefully.”
     “You’re using a red crayon and making a circle.”

- *Where your child is:*
  "You are sitting on the floor."
  "You are showing me your picture of a house."
  "You are on your stomach checking out your tower."
- *Your child's mood or appearance:*
  "You are smiling."
  "You are wearing a green shirt."
  "You are trying very hard and being very careful."

5. *Reflective Listening.* This lets your child know that you are hearing and are interested in what he or the says. You can listen reflectively by:
   - *Simply repeating back what the child has said:*
     Child: "I want a green block."
     Parent: "You want a green block."
     Child: "I like playing with you."
     Parent: "You like playing with me."
     Child: "I hate these blocks."
     Parent: "You hate those blocks."
   - *Elaborating on what the child says:*
     Child: "I want a green block."
     Parent: "You want a green block for your house."
     Child: "I like playing with you."
     Parent: "You are enjoying our special time."
     Child: "I hate these blocks."
     Parent: "You are really angry."
6. *Praise.* You can praise by *labeling* what it is you like ("I like the way you used yellow to draw the sun," or "You are putting the cars in the box so carefully"), or you can give *unlabeled* praise ("Good work"). Labeled praise has the advantage of letting your child know specifically what you like and thus gives your child more information. This will take some practice, but it will get easier. Another way to praise your child is to give hugs, kisses, and smiles.
7. *Ignore.* When your child engages in behavior that is undesirable but *not* harmful or destructive, withhold your attention (i.e., stop following, attending, or praising). This lets the child know that you don't like the behavior. Ignoring is difficult, but practicing ignoring during the Child's Game will make it easier to do in day-to-day activities. If your child engages in destructive behavior, then it is time to stop the game.
8. *No Questions or Commands.* It is very important not to ask questions ("What are you doing?", "You are happy, aren't you?", What are you drawing?") or give commands ("Give me the car, "Put this on top"). This interferes with the flow of your child's play and structures the play unnecessarily.
9. *No Teaching.* This is not a time to teach your child or to find out what he or she knows. It is a time to follow your child's lead, so that you can see how much your child does know and can do by him- or herself!
10. *Parent Participation.* It is important that your child's activity is the focus of your time together. You can participate in the activity by handing your child things and imitating his or her play, but be sure to continue describing and praising what your child is doing. Be careful not to lead the activity or structure it in any

way.

11. ***Homework.*** **Play the Child's Game with your child every day for 5–20 minutes, but no less than 5 minutes. This is a time to practice the attending, reflective listening, and praising skills, but it is also a time to enjoy and get to know your child. Keep a record of each time you play the game on the attached record sheet. Remember that you can also practice using these skills throughout the day. The goal is to make them a natural part of your everyday interactions with your child.**

Have fun!! You can make a difference in your child's life!!

FIGURE 10.3. Parent handout for teaching self-control: Child's Game.

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The idea behind attending is to watch the child carefully and describe enthusiastically what he or she is doing in a "play-by-play" manner (see Figure 10.4 for examples). Parents should be taught to use *labeled praise* (which specifies the desired behavior) whenever possible, as this lets the child know clearly what is acceptable behavior. Parents can also reflect or repeat what their child says (e.g., "Yes, that is a yellow duck") to show they are listening. Physical demonstrations of affection, such as hugs, kisses, or pats on the back, are also good ways to praise the child.

Child's Game Record Sheet

Child's Name: ______________________ Age: __________

Date	Time	Activity	Child's Response

FIGURE 10.4. Chart for recording sessions of the "Child's Game."

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The clinician should model following, attending, and praising with the child in play. The parents are then given an opportunity to try out this new skill. It is awkward and difficult for most parents at first, and the clinician should coach the parents by offering suggestions for descriptive statements or praise as appropriate and by praising their efforts. The parents should understand that behaviors described and praised will increase, so they need to be careful to ignore any behaviors that are not considered appropriate. At this point in treatment, behaviors that cannot be ignored (hitting, throwing toys, etc.) should be handled as the parents typically do; however, these behaviors also should serve to terminate the play session. Parents should be reminded to not ask questions, give any commands, or teach the child during this playtime. Questions are perceived by the child as demands, whereas commands and teaching interrupt and structure the child's play. Because these are typical ways in which adults interact with children, parents usually need to be gently reminded about this from time to time ("Oops, that was a question! Try to restate it as a descriptor," or "That was a command; did you really mean it?").

In order to generalize the skills outside of session, parents should set aside a short period of time each day to play with their child and practice attending and praising, and each session of this "Child's Game" should be recorded on a record sheet (Figure 10.4). We recommend 15–20 minutes, although McNeil and Hembree-Kigin (2011) state that 5 minutes is sufficient and effective. If two parents are involved in treatment, they can take turns coaching each other, but this should be a positive experience for the parents, not a time to be overly critical. If there are other children in the family or if both parents work, the clinician will have to help parents determine how this special time will fit into the family schedule. Although attending and praising are practiced during special play sessions with the child, parents should be encouraged to apply this skill at other times during the day. The way to do this is to check periodically (once every 30 minutes, for example) on the child, decide whether the behavior in which he or she is engaging is appropriate, and, if so, then praise or describe it. Describing behavior during daily activities is also effective—for example, "I like the way you are staying close to me in the mall." The handout describing the procedure (Figure 10.3) is given to the parents, as is the chart to record each time the Child's Game is played and the child's reaction to it (Figure 10.4).

At the beginning of the next session (and all subsequent sessions), the clinician should check with the parents to determine what has happened during the preceding week. Reviewing the parents' Daily Log provides a structured way to do this. Parents should then each be asked to demonstrate attending and praising, and the clinician should record this behavior for about 5 minutes for each parent. The goal is to reach a rate of 10 behavioral descriptions; 10 reflective statements; 10 labeled praises; and no more than three questions, commands, or criticisms (McNeil & Hembree-Kigin, 2011). Parents also must ignore nonharmful, inappropriate behavior. The remainder of this session (and succeeding sessions until the goal is reached) should be spent coaching the parents on the use of attending and praising. The clinician should sit in an unobtrusive manner (or use a "bug in the ear" if this is available[1]) and ignore any overtures from the child. Positive feedback on how a parent is doing should be given quietly. This feedback should point out important developmental expectations for child behavior and the specific effects of the parents' behavior on the child. The clinician should be sure to praise the parents' efforts, especially if they are having difficulty mastering the techniques; behavior that is reinforced will increase! Some parents need to increase their rates of different behaviors, whereas others may lack enthusiasm. In the latter case, the clinician may need to model enthusiastic statements and help the parents find ways to make the interactions more meaningful.

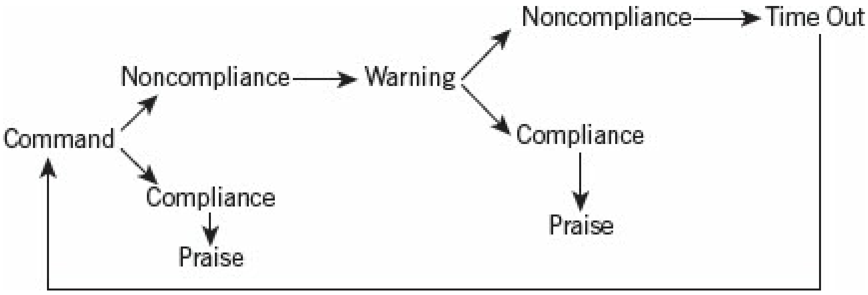
Step 2: Giving Good Commands and Using Time Out

The second step of the parent training program is teaching parents how to give good, clear, age-appropriate commands, then provide consistent consequences for compliance or noncompliance to those commands. Good commands have eight characteristics (Barkley, 2013b; McNeil & Hembree-Kigin, 2011): (1) They should be direct rather than indirect ("Hang your coat up" vs. "Wouldn't you like to hang your coat up now?"); (2) they should be stated positively ("Please hold my hand" vs. "Stop running ahead of me"); (3) they are given one at a time; (4) they should be specific or stated so that the child knows exactly what behavior is expected (e.g., instead of saying, "Be good," a parent should specify what is meant by "good" in the specific situation); (5) they should be age-appropriate (i.e., the parent should only ask the child to do something the child is capable of doing); (6) they should be given politely and respectfully; (7) they should be used only when necessary; and (8) reasons for the commands should be explained before the command is given or after the command is obeyed, rather than after the child refuses to obey, as this gives the child attention for not obeying.

The use of time out has been somewhat controversial, arousing some negative publicity in the past few years (Morawska & Sanders, 2011). However, time out done appropriately and used with other parenting strategies has been shown to be very effective in reducing child problem behaviors without negative effects on children (Chorpita & Daleiden, 2009; Fabiano et al., 2004; Morawska & Sanders, 2011). Various programs may have different ways to implement time out, but the behavioral principles used should be the same. The active ingredient of time out is removing a child from a reinforcing situation (e.g., parent attention) after a negative behavior (e.g., hitting a sibling) for a certain amount of time (MacDonough & Forehand, 1973). Important parameters of time out are duration (1–5 minutes appears to be effective, and 1 minute for each year of age is usually most appropriate) and contingent release (time out should be terminated only after a period of quiet, and the child should then be given a command to perform the original request) (Barkley, 2013b). In addition, the parents should be instructed to ignore any low-level annoying behavior (crying, whining, kicking the wall, complaining) that occurs while the child is in time out. A parent could choose to keep the time themselves or use a kitchen timer, although the child should understand that the parent will tell him or her when the time is completed. If the child cries, screams, or is otherwise disruptive in time out, the time should be reset each time this occurs. The procedure for using commands and time out for noncompliance (the "Parent's Game") is given in Figure 10.5, which is another parent handout.

Parent's Game

The goal of the "Parent's Game" is to learn how to give commands and to punish undesirable behavior by using time out. *Time out* refers to "time away from ongoing positive reinforcement." Most young children like to be around people, so time out from attention and ongoing activities can be an effective punishment. Time out is only effective if there are a lot of positive "time-in" opportunities.



Steps for Success

1. *Give Good Commands.* Good commands are:
    - Direct ("Mary, please hang up the towel" vs. "Mary, let's hang up the towel").
    - Positively stated ("Please hold my hand" vs. "Stop running").
    - Given one at a time ("John, please pick up your coat" vs. "John, you know you are to put your coat in the closet, your lunch bag in the kitchen, and your books on the table when you get home").
    - Clear and concise ("I want you to sit quietly in the cart" vs. "I want you to be good").
    - Age-appropriate ("Get an apple out of the bowl" vs. "Get a snack from the kitchen").
    - Polite and respectful ("Please hand me the brush" vs. "Give me that brush *right now*").
    - Something the child can do immediately ("Please get ready for bed now" vs. "Tomorrow I want you to go to bed on time").
    - Used only when necessary (e.g., "Please sit down" vs. "Say good-bye to Aunt Mary").

2. *Ask No Questions/Make No Suggestions.* Do not ask a question when you want your child to do something ("Would you feed the cat now?"). When you ask your child a question, you give him or her a choice, and you must be willing to accept "No" as an answer. If you give a suggestion ("Let's go outside"), you should also be prepared to allow your child to say "No." Be sure to give your child true choices as much as possible, but not when you want him or her to do what you say.

3. *Praise Compliance.* After you give a command, *stop and wait* 5 seconds for your child's response (count silently, never out loud). If your child does what you want, immediately praise or attend to him or her ("I appreciate your hanging up your coat"). As you learned in the Child's Game, you can increase compliance by giving it attention after its occurrence. You can also increase compliance by describing your child's actions as he or she starts to obey ("Thank you for picking up the blocks").

4. *Give a Warning.* If your child does not comply with your command after a (silent) count of 5 seconds, give a warning. *Do not repeat the command.* Warnings are "If–then" statements ("If you don't pick up your coat, then you will have to sit on the chair"). Warnings should be given in a firm voice so that your child knows that you are serious. If your child complies following a warning, immediately praise and/or attend to him or her.

5. *Use Time Out.* If your child does not start to comply within 5 seconds after a warning, you should use time out. Time out by isolation is best carried out by putting your child in a chair facing a corner or in his or her room. Take your child firmly by the hand and place him or her on the chair. Say, "Since you did not ___________, you will have to sit in the chair [or stay in your room]." The length of time out should be 2 to 4 minutes for preschool children and about 5 minutes for school-age children. Use the same length of time out for both major and minor offenses.

   Do not talk to your child on the way to time out or while he or she is in time out. Completely ignore your child's temper tantrums, shouting, protesting, or promises to behave. Go about your activities.

   Use a kitchen timer or tell your child you will let them know when the time is up so the child knows he or she has to sit until you say. *A very important rule is that your child must sit quietly in the chair for 30 seconds before being released from time out.* If your child is not quiet when the bell rings, say, "You will have to stay until you are quiet."

   If you are using a chair for time out and your child gets off the chair without your permission (buttocks leave the seat or the chair is moved), immediately use one of the following procedures:

   - Take your child to an uninteresting and safe room, and close the door for 60 seconds. Take the child back to the chair and say, "Sit there and be quiet." If your child still does not stay in the chair, take him or her back to the room and again close the door. Say, "You must stay here until you are quiet."
   - Simply take your child back to the chair *every* time the child gets out of the chair. Do not talk to the child. Be prepared for 10–20 trips.
   - Use a back-up consequence that has been decided beforehand ("Since you will not sit in time out, you will miss your favorite show this afternoon").

   After your child has been quiet for at least 30 seconds (preferably for the entire length of the time-out period), the child may come out of time out ("You may come out now"). Repeat the command that resulted in time out. Then repeat giving a warning and time out as many times as necessary until your child complies. Be sure to praise compliance.

6. *Do Not Reason with a Young Child Immediately after Misbehavior.* Explanations and reasoning about rules and consequences of behavior are important, especially as your child gets older, but if you reason immediately after misbehavior you may actually increase the undesirable behavior. Reason with your child when he or she is doing something you like ("When you get ready for bed so quickly, it gives us more time to talk and read stories").

7. *Do Not Give a Command Unless You Are Prepared to Use Time Out.* This will help you reduce the number of demands to those that are *really* important! Be affectionate and praise your child for desirable behaviors that occur after the time out. When time out is not working, ask yourself the following questions:

   - Are you giving more than one command or warning?
   - Is everyone in the household who is responsible for the child using time out appropriately and consistently?
   - Are there plenty of opportunities to praise the child (and are you praising desired behavior)?
   - Is the general atmosphere in the home pleasant?
   - Are you falling for the "I like to go to time out" trick? Don't be fooled!
   - Is your child putting him- or herself in time out after a problem behavior? If this is happening, be sure to

make your child stay there for the required length of time.

- **Is your child getting attention while in time out, or can he or she see the TV or other enjoyable sights?**
- **Is the child aware of the rules?**
- **Is time out used consistently?**

FIGURE 10.5. Parent handout for teaching self-control: Parent's Game.

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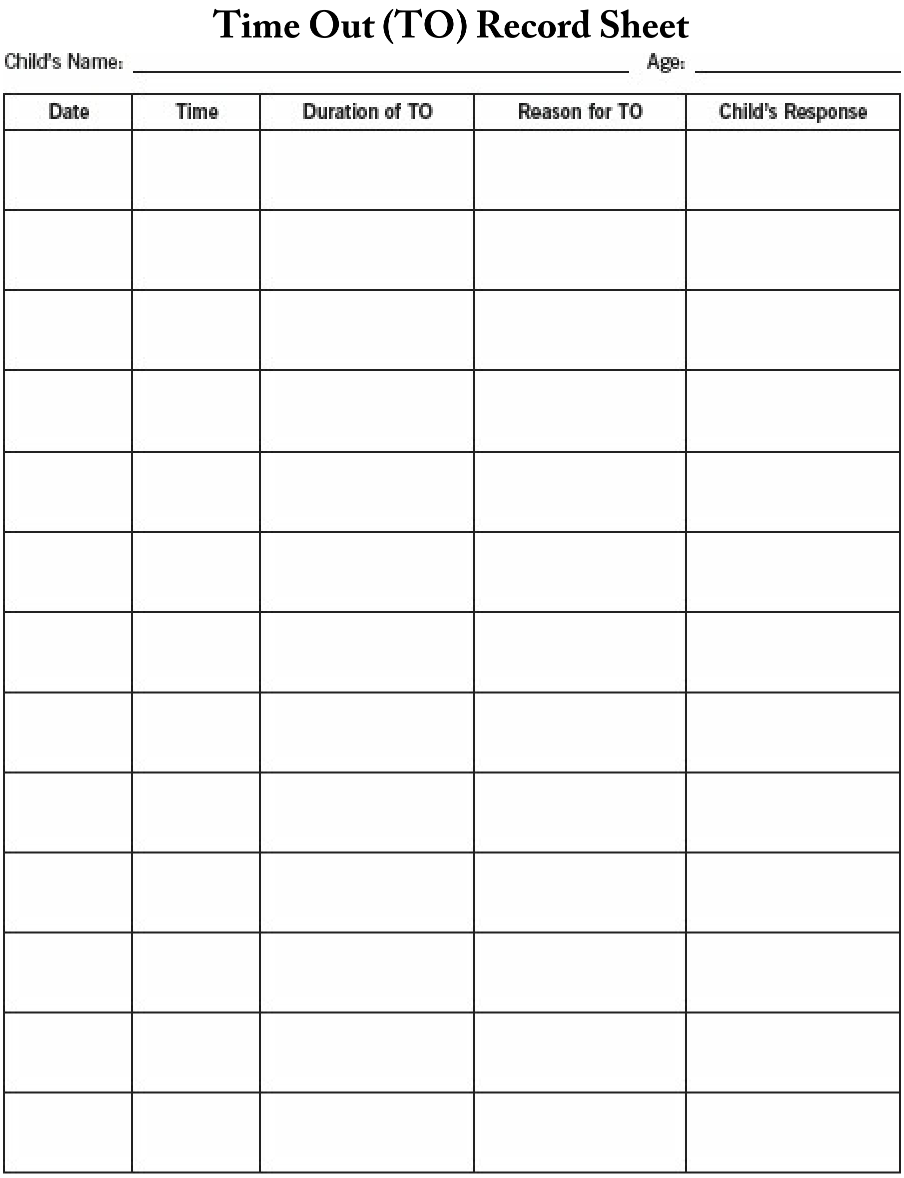
The time-out procedure should begin with a warning (i.e., "If you do not do ____________, then you will have a time out"). After one, and only one, warning, the child is taken to a time-out chair. Some children will not stay in time out, and there are several ways to deal with this behavior. These should be discussed with parents beforehand to determine which may work best for them: (1) If the child gets off the chair, then the child can be taken to a time-out room. The room is only used for time out if the child gets off the chair; or (2) the child can be repeatedly put back on the chair each and every time he or she leaves it. This method may be effective, but it takes a considerable amount of parents' time and energy, and should be done without giving the child extra attention. Parents need to assess whether they can do this repeatedly without becoming unduly upset or angry; or (3) if the child is really unable to stay in time out due to disruptive behavior, the parents can devise a response cost (e.g., taking something away) for the behavior. It is not recommended that parents spank their child if he or she does not stay in time out or hold him or her in time out, since these strategies are more ineffective and may harm the child (Benjet & Kazdin, 2003; Masters & Bellonci, 2001).

The clinician should model the command–time-out sequence with one parent, then have the parents take turns practicing with each other while being coached by the clinician. We typically include the child in this session and explain the new rules to him or her while the parents demonstrate. The child is usually very interested in watching Mom put Dad in time out, and the concrete demonstration helps the child understand the consequences of noncompliance. Alternatively, the child can practice time out by going through the sequences with a stuffed animal. At the end of this session, parents are given the handout (Figure 10.5) describing the procedure in detail, as well as a chart to record all instances of time out for the coming week (Figure 10.6). They are instructed to call the clinician if they have questions or problems implementing the procedures. Some parents need help deciding where to locate the time-out chair in their home. The best place is in a corner of a seldom-used room, such as a dining room or laundry room, where the child is out of the mainstream of family life (no TV, toys, etc.)

but can be watched. Time out in the child's bedroom is usually not effective, as there are often reinforcing things in the room.



Time Out (TO) Record Sheet

Child's Name: ______________________ Age: __________

Date	Time	Duration of TO	Reason for TO	Child's Response

FIGURE 10.6. Chart for recording instances of time out.

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Reasoning about rules and consequences with children is important, especially as they get older; as previously stated, however, parents should not do this at the time the child is misbehaving, because this is likely to reinforce the child's inappropriate behavior. Rather, parents can reason with the child when he or she is behaving appropriately, discussing why they like the child's behavior. Finally, it is important for parents to be sure to be affectionate, and attend to and praise the child's appropriate behaviors as soon as they occur after the time out is over.

Succeeding sessions focus on troubleshooting the time-out procedure, generalizing the new skills to other situations (e.g., public places such as grocery store), and dealing with any specific problems that have not been resolved. As much as possible, parents should learn to anticipate troublesome situations and provide children with the rules and consequences of breaking the rules ahead of time. As new problems occur, parents are prompted to problem-solve how they can apply their skills and resolve the problem on their own.

Adaptations of The Program for Older Children

In the parent training program just described, control is largely external. Although this is appropriate for younger children, the long-range goal is for children to internalize control. For this reason, as children grow older, it is important that they actively participate in the training. Contingency contracting using tokens or points can accomplish this goal. We suggest weekly family meetings (which can occur at the clinic until everyone is clear about how these work), during which parents and children negotiate together what behaviors or chores are expected and what the rewards–consequences will be for engaging in these behaviors or completing chores. A combination of a token system and a response cost system is implemented, wherein tokens or points are earned for appropriate behavior and taken away for inappropriate behavior. Points or tokens are accumulated and traded in at regular intervals for privileges such as having a friend stay overnight, watching extra TV, dinner out, special time with a parent. The program is reviewed and adjusted each week at the family meeting. An example of a token system for sibling rivalry is given in Chapter 12 (see Figure 12.1). The response cost method, in which tokens or points are taken away as a consequence of inappropriate behavior, has been demonstrated to be very effective in managing children's negative behavior (McMahon & Wells, 1998). See Barkley (2013b) and Chorpita and Weisz (2009) for more detailed descriptions of this type of system.

Intervention in Medical/Health Aspects

In general, there is agreement among professionals that psychoactive medications should not be used as a first-line approach to treatment of disruptive behavior, but instead be used after psychosocial treatment has been attempted (Steiner & Remsing, 2007). Moreover, there is evidence that use of psychoactive medications for symptoms of comorbid conditions including stimulants (e.g., methylphenidate) for ADHD, or antidepressants (e.g., imipramine) for depression, may also reduce disruptive behavior in some children (Pappadopulos et al., 2006). There have not been sufficient controlled studies of medications for disruptive behavior to warrant their use with children unless other treatments have been tried and failed, and the children's behavior is extremely serious. Atypical antipsychotics have been used for aggression; risperidone (Risperdal) has been the most studied and has shown significant reductions in aggression for children with ODD, CD, developmental disabilities such as autism, and for children with below-average intelligence (Eyberg et al., 2008; Pringsheim, Hirsch, Gardner, & Gorman, 2015). School-age children diagnosed with ADHD, ODD, and CD with significant aggression received the multisite treatment of severe childhood aggression (TOSCA; Gadow et al., 2014), which compared an intervention of parent training and stimulant medication (basic treatment) to parent training, stimulants, and the addition of risperidone at 4 weeks of treatment (augmented treatment). Overall, children who received the basic treatment showed significant reductions in ADHD and ODD symptoms and peer aggression, and those in the augmented treatment experienced further reductions throughout the 9-week study, showing the usefulness of risperidone with severe aggressive behavior.

Studies of other antipsychotics and mood stabilizers for disruptive behavior, such as lithium, have mixed results, which make appropriate recommendations difficult, especially considering the side effects of these medications, including nausea, drowsiness, weight gain, and abnormal functioning of the kidney, thyroid, and/or parathyroid gland (Patel, Crismon, Hoagwood, & Jensen, 2005; Pringsheim et al., 2015). A few studies indicate that the alpha agonists clonidine and guanfacine may have some effect on disruptive behavior, but more studies are needed (Pringsheim et al., 2015). In summary, medication for disruptive behavior demonstrates variable treatment response, and side effects of the medications should also be considered before attempting this method of treatment.

CASE EXAMPLE: PRESCHOOL OPPOSITIONAL BEHAVIOR

Step 1: Initial Contact

Mrs. Sweet, who called at the suggestion of her friends, said that her 3½-year-old son, Henry, was causing a "few" problems, and that the problems occurred primarily with her. She stated that she viewed much of Henry's behavior as normal for an active, bright boy, but that recent comments from her friends and family about his escalating disruptive behavior had prompted her to talk with a professional. She asked to come in for an appointment to get some specific suggestions on handling his disruptive and oppositional behavior. She further indicated that she was hoping to get confirmation that everything was really OK with Henry.

Prior to the initial interview, the parents were asked to complete the General Parent Questionnaire. They were also each asked to complete the ECBI and the PSI-4, and Mrs. Sweet was asked to keep the Daily Log for 1 week prior to the initial interview. She returned the completed forms and checklists before her appointment, so that they could be scored and reviewed by the clinician. Although Mr. Sweet completed the forms and supported his wife in seeking help, he elected not to come to the interview, since he saw it as primarily "my wife's problem."

The General Parent Questionnaire indicated that Mr. Sweet was a construction worker and his wife was a full-time homemaker. Henry had a 9-month-old sister. On the ECBI, Mrs. Sweet gave Henry an Intensity score of 189 and a Problem score of 5, indicating that she perceived Henry as engaging in a significant amount of disruptive behavior but did not consider the behavior to be problematic for her. In contrast, Mr. Sweet described Henry as being within the normal range on both the Intensity and Problem scales. On the PSI-4, the responses of both mother and father were within the normal limits, with the exception that the father's score for Child Adaptability and the mother's score for Sense of Competence were both above the 90th percentile (high scores on the PSI-4 are problematic). The Daily Log contained descriptions of inappropriate behaviors: "Henry hit his grandfather on the shin with a baseball bat" and "Henry scraped a knife across the kitchen wall."

Step 2: Initial Intake Interview

Mrs. Sweet and Henry came together for the initial interview. Mrs. Sweet stated that Henry's developmental milestones were within normal limits; for example, he was speaking in sentences by 24 months. He was described, however, as being a "difficult" child from birth. Henry was cared for primarily by Mrs. Sweet; babysitters were limited to the occasional evening out, and no problems were reported during those times. Likewise, his three mornings a week at a preschool were problem-free, although the teachers initially reported that they had to be rather "firm" in their expectations for him. He was often invited to spend time with friends in their homes; although this went well, difficulties were reported when friends visited him. At these times, Henry was described as very active, getting into things that were forbidden and in general creating chaos. Henry's father, who was 15 years older than his wife, thoroughly enjoyed Henry, often taking him on full-day outings, with only minor problems. He felt that Mrs. Sweet simply was "too nice" and should be firmer with Henry. The major problems, according to Mrs. Sweet, were "not listening," "refusing to do as requested," and "talking back." All of these behaviors occurred primarily with his mother, but they were beginning to occur with other people in the family.

In order to determine the extent of the problems and the frequency of their occurrence, the clinician asked Mrs. Sweet to describe a typical day for Henry, from the time he got up in the morning to the time he went to bed. She described Henry as managing many routine events such as eating and bathing with ease, but when any demands were placed on him, he would refuse to comply. Mrs. Sweet spent much of her time rearranging her schedule in order to avoid confrontations. This was becoming increasingly difficult as her 9-month-old baby demanded more attention. Although Mrs. Sweet was clearly exhausted from the effort of caring for her children, she felt that this was simply part of being a mother.

Step 3: Observation of Behavior

Henry appeared in the clinic wearing an army camouflage outfit, cowboy hat, and boots; he was toting two six-shooters and a toy machine gun. He greeted the clinician, saying "I'm going to shoot your eyes out." The clinician responded firmly: "We don't talk like that in my office," to which Henry quickly responded in a contrite voice, "Oh, I'm sorry."

Observation of parent–child interaction indicated a mother who gave a high rate of noncontingent positive reinforcement, placed few demands on Henry, and tried to get compliance through reasoning. Henry placed many demands on his mother and rarely complied with her requests. However, there were also many positive interactions between Henry and his mother, and they seemed to enjoy playing together. Henry's play was observed to be age-appropriate; interactions with the clinician after the initial negative statement were positive; and although he refused to comply with his mother's requests to pick up the toys or change activities, he readily complied with the clinician's requests to clean up the toys.

On the basis of the information gathered thus far, the clinician decided that further assessment (Step 4) and Collaboration with other Health Care Professionals (Step 5) were not necessary.

Step 6: Communication of Findings and Treatment Recommendations

In determining where things were going wrong for this mother and child, the clinician told Mrs. Sweet that Henry appeared to be in good physical health and that he was developmentally on target, but that his mother's expectations for him and for herself were creating and maintaining much of the inappropriate behavior. Furthermore, Mrs. Sweet's management techniques were actually increasing the problem behavior. The fact that the behavior occurred primarily with her and was just beginning to generalize to other adults close to Henry indicated a rather circumscribed problem. Although Mrs. Sweet indicated that she was not suffering personally from the behavior, she was told that the continuation of the behavior could only have a negative effect on their relationship and on Henry's development. The generalization of disruptive behaviors with other adults could also lead to decreased interactions with Henry and, consequently, fewer opportunities for him to learn.

It was recommended that both parents attend classes on child development and management, and that they be involved with Henry in a series of treatment sessions to increase the positive parent–child interactions, to set age-appropriate limits, to increase compliance on Henry's part, and to determine a consistent method of discipline. Mr. Sweet was asked to come in for an interview prior to giving these recommendations, so that his view of the problem could be further explored. He agreed to this and to the recommendations. He felt that coming to an agreement on management techniques would ultimately decrease the conflict between himself and his wife over Henry's behavior.

Course of Treatment

The parent training program described in this chapter was carried out over a 6-week period, with follow-up appointments 1 and 3 months after treatment. After treatment, although Henry was described as "headstrong," both parents felt that his behavior was acceptable and, for the most part, easily managed. Both parents rated him within normal limits on the ECBI and PSI-4.

RESOURCES FOR CLINICIANS

Barkley, R. A. (2013). *Defiant children: A clinician's manual for assessment and parent training* (3rd ed.). New York: Guilford Press.

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

McMahon, R. J., & Forehand, R. L. (2003). *Helping the noncompliant child: Family-based treatment for oppositional behavior* (2nd ed.). New York: Guilford Press.

McNeil, C. B., & Hembree-Kigin, T. L. (2011). *Parent–child interaction therapy* (2nd ed.). New York: Springer.

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RESOURCES FOR PARENTS

Barkley, R. A., & Benton, C. M. (2013). *Your defiant child: Eight steps to better behavior* (2nd ed.). New York: Guilford Press.

Huebner, D. (2007). *What to do when your temper flares: A kid's guide to overcoming problems with anger.* Washington, DC: Magination Press.

Shiller, V. M. (2003). *Rewards for kids!: Ready-to-use charts and activities for positive parenting.* Washington, DC: American Psychological Association.

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[1] A “bug in the ear” is an intercom system that allows the clinician to sit behind a one-way screen and coach the parent through an earpiece.

CHAPTER 11

Developmental Disabilities

Intellectual Disability and Autism

It is well accepted that there are significant individual differences in the timing of all developmental functions, from the eruption of teeth to the growth spurt associated with puberty, to motor skills and language acquisition. For the most part, these early differences in the tempo of growth are not associated with any differences in outcome; that is, it is a maturational lag that resolves over time (Tanner, 1989). Thus, when parents express concerns about their children's development, they are often told, "They will catch up." We know, however, that a number of children do not catch up, and that for these children the concept of a maturational lag is not supported when the overall picture of delayed functioning is taken into account or when a particular delay is severe (Thapar & Rutter, 2015). There is also evidence that there is not always complete "recovery" with even mild delays such as language skills that often lead to later problems with reading (Conti-Ramsden, St Clair, Pickles, & Durkin, 2012; Stothard, Snowling, Bishop, Chipchase, & Kaplan, 1998). A major issue for clinicians is the early identification of children whose deficits or problem behaviors will persist, and who therefore will benefit from early intervention programs. We cover in this chapter current definitions and diagnostic criteria for developmental disabilities and neurodevelopmental disorders, with a focus on intellectual disabilities (ID) and autism spectrum disorder (ASD). In addition, we combine some aspects of assessment and treatment for the two conditions.

DEFINITION AND CLASSIFICATION

Developmental Disability

Over the past 20 years and, most especially in the previous decade, there has been a rapid growth of research on the assessment and treatment of developmental disabilities and, specifically, ASD. A great deal has been learned about the specific capabilities and prognosis for various subtypes of disability, which has resulted in changing labels, definitions, and diagnoses. These changes have a direct impact on who can access early care and education, training and employment, income support, health care, and housing, as well as people's legal status in the criminal and civil justice systems (Schroeder, Gertz, & Velazquez, 2002). The Developmental Disabilities Act of 2000 provides the legal definition of developmental disabilities in the United States (Developmental Disabilities Assistance and Bill of Rights Act of 2000). It defines *developmental disability* (DD) as a severe, chronic disability of an individual 5 years of age or older that (1) is attributable to mental or physical impairment; (2) is manifested before the individual attains age 22; (3) is likely to continue indefinitely; (4) results in substantial functional limitations in three or more of the following major life activities: self-care, receptive and expressive language, learning, mobility, self-direction, capacity for independent living, and economic self-sufficiency; and (5) reflects the individual's need for a combination and sequence of special, interdisciplinary services, individual supports, or other forms of assistance that are lifelong or of extended duration, and that are individually planned or coordinated. This is a functional definition covering a broad range of disabilities including ID and ASD.

Neurodevelopmental Disorders

Neurodevelopmental disorders (ND) are characterized by developmental deficits in personal, social, academic, or occupational functioning. This cluster of disorders typically is manifested from early childhood and has a steady course without marked remission or relapse but tends to lessen with increasing age yet is still associated with impaired functioning into adulthood (American Psychiatric Association [APA], 2013; Thapar & Rutter, 2015). In addition, some ND clinical presentations have symptoms of *excesses* as well as delays (e.g., repetitive movements) or involve aberrant behaviors (e.g., self-injurious behaviors). The fifth edition of the *Diagnostic and Statistical Manual of Mental Disorder* (DSM-5; APA, 2013) includes the following disorders as ND: specific learning disorders (SLD; reading, writing, and arithmetic), motor disorders (developmental motor coordination, stereotypic movement, and tic disorders), communication disorders (language, speech, social communication, and stuttering disorders), intellectual disability (ID), autism spectrum disorder (ASD), and attention-deficit/hyperactivity (ADHD). ND are defined as categories for clinical purposes, but they are also seen as dimensional and may range from very specific limitations of learning to global deficits in cognitive or social functioning (APA, 2013). For example, ID has specifiers regarding the current severity level of the child's adaptive functioning, ranging from mild to profound.

Other characteristics shared by ND are that their etiology is multifaceted and that they can co-occur, which means that often a child with one ND disorder can have a symptom pattern of another ND disorder. For example, children with ASD often have ID, or a specific language impairment can co-occur with a reading disability (APA, 2013). All of the ND are heritable, which contributes a great deal to their co-occurrence (Ronald & Hoekstra, 2011). Most of the genetic liability appears to be shared across different ND and their traits, but there are also disorder-specific influences, and the liability extends to disorders outside the ND cluster (Lahey, Van Hulle, Singh, Waldman, & Rathouz, 2011). Given that the same risk factors and heritable genes can result in different clinical features (phenotypes), it is thought that epigenetic changes in prenatal and early life exposures can explain these differences (Thapar & Rutter, 2015). *Epigenetics* is the study of how external influences can modify the expression of genes but do not change the DNA sequence. Later in life, ND can also be followed by new-onset psychiatric disorders such as depression, or in the case of ADHD, oppositional defiant disorder/conduct disorder.

Intellectual Disability

The previous label for low cognitive functioning, *mental retardation*, was deemed pejorative and was officially replaced in 2010 by federal statute (Rosa's Law, 2010) with *intellectual disability.* Furthermore, it is noteworthy that the DSM-5 (APA, 2013) description of ID does not use the term *disorder*, which usually connotes a psychiatric condition. In the United States, there are two different definitions of ID, one by DSM-5 (APA, 2013), and the other by the American Association for Intellectual and Developmental Disabilities (AAIDD; Schalock et al., 2010). While these definitions generally agree, there are some differences, particularly with the intensity of social supports needed by an individual. The AAIDD definition is used most widely in the United States, but both definitions can be used to establish eligibility for services. Both definitions agree on three criteria: deficits in intellectual function, deficits in adaptive behavior, and manifestation during the developmental period. DSM-5 differs from previous DSM editions by including clinical judgment in the interpretation of testing scores and therefore the diagnosis of ID. Furthermore, ID cannot be diagnosed without consideration of both intellectual and adaptive functioning.

Intellectual functioning is typically measured by individual standardized tests that involve cognitive skills such as reasoning, problem solving, learning from instruction and experience, and practical understanding (APA, 2013; Schalock et al., 2010). A significant limitation in cognitive functioning is defined as an *intellectual quotient* (IQ) score of approximately two standard deviations below the population mean, considering the standard error of measurement for the specific test used and the test's strengths and limitations. The definition of *developmental period* when an ID develops has varied and is operationally defined by AAIDD as 18 years or younger, by the federal government as between ages 5 and 22 years; however, DSM-5 does not specify a critical age period. It is generally accepted that the developmental period is under ages 18– to 22 years (APA, 2013; Developmental Disabilities Assistance and Bill of Rights Act of 2000; Schalock et al., 2010). Significant limitations in *adaptive functioning*, as in intellectual functioning, are typically assessed by standardized measures that are two standard deviations below the population mean, considering the standard error of measurement for the specific measurement used. DSM-5 states that without ongoing supports, adaptive defects limit functioning in one or more activities of daily life, and specifies various levels of adaptive functioning as *mild, moderate, severe,* and *profound.* AAIDD is more specific and defines limitations of adaptive functioning as occurring (1) in one of three types of adaptive behavior: conceptual, social, or practical, or (2) an overall score on a standardized measure of conceptual, social, and practical skills.

A key tenet of the AAIDD definition of ID is that the description of an individual's limitations should lead to a profile of the *intensity of supports* the individual needs in five areas: intellectual abilities, adaptive behavior, health, participation in social activities, and ecological context. A Supports Intensity Scale (SIS) has been constructed for this more extensive evaluation of needed supports (Thompson et al., 2004). AAIDD therefore expands the classification of ID to include not only intellectual and adaptive functioning but also an individual's physical and mental health, involvement in his or her environment, and the context in which all factors operate. All of these dimensions interact within individualized supports to result in optimal functioning (Schalock et al., 2010; Witwer, Lawton, & Aman, 2014).

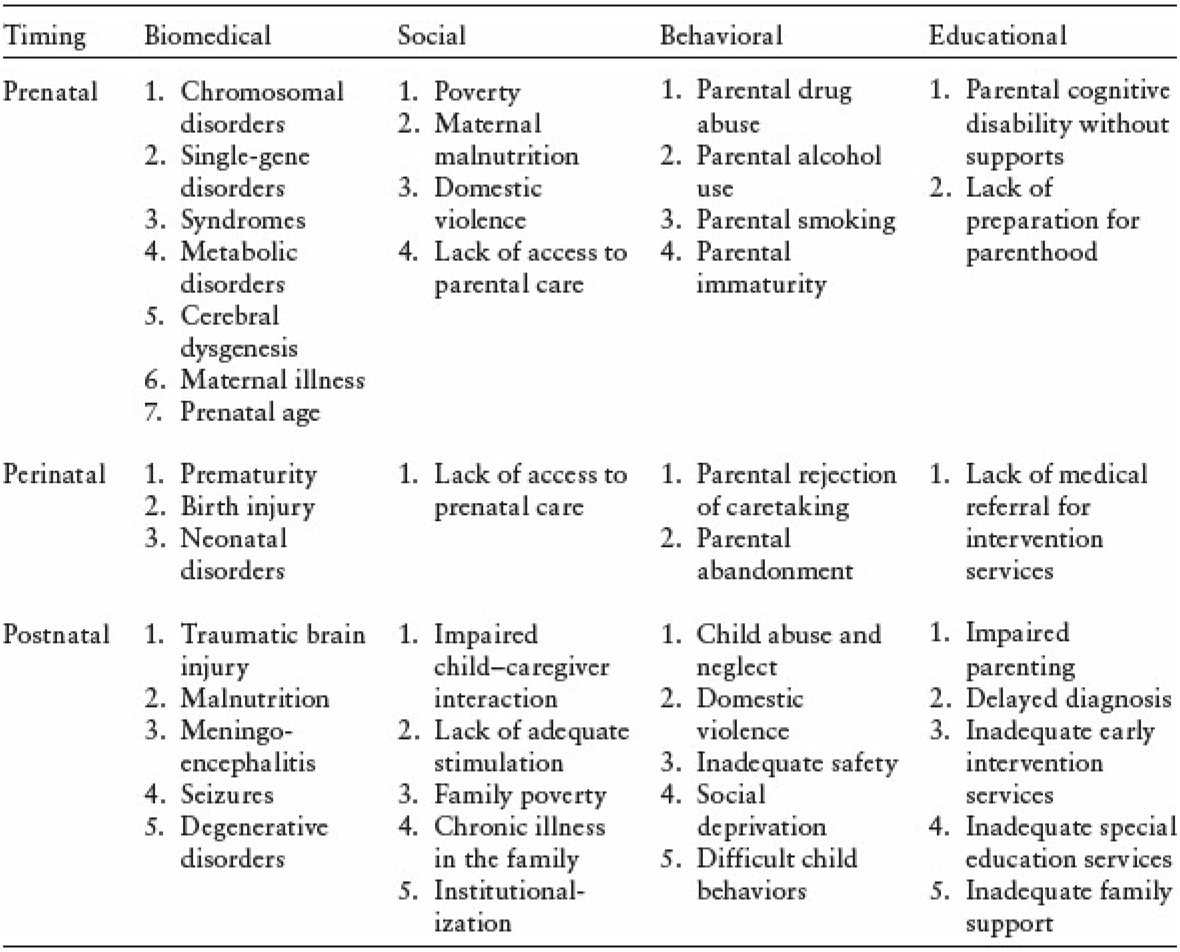
Prevalence

Systematic reports and meta-analysis, based on the definitions of ID according to diagnostic criteria established by DSM-5 (APA, 2013), the AAIDD (Schalock et al., 2010), and the International Classification of Functioning, Disability and Health (ICF; World Health Organization, 2013) generally agree that ID is present in about 1% of the global population. Estimates of ID have been fairly constant over the past two decades. However different severity levels of ID (mild, moderate, severe, and profound) present at different frequencies. For example, King, Toth, Hodapp, and Dykens (2009) reported proportional rates for mild (85%), moderate (10%), severe (4%), and profound (2%) levels. Many mildly affected children who have received early intervention for ID improve and essentially become absorbed into the general population after leaving school at the age of 18 years. The ones who remain are those more severely affected and those who also have other comorbidities, such as genetic disorders (e.g., tuberous sclerosis) and/or neurobiological impairments (e.g., seizures) (Miles et al., 2005; Thompson, 2011).

Etiology

Schalock et al. (2010) demonstrated that ID is a heterogeneous condition with multiple causes and Table 11.1 lists a variety of biomedical, social, behavioral, and educational risk factors for intellectual disability. This useful list reflects the need for a multifactorial approach to etiology requiring interdisciplinary assessment, with a focus on needed supports rather than deficiencies (Witwer et al., 2014). It is interesting that over half of all prevalence studies report that causal factors are unknown, indicating that antenatal, perinatal, and postnatal causes account for only some of the variance, and that sex, socioeconomic status, and culture account for much of the variability in the number of individuals diagnosed with ID (Witwer et al., 2014). In general, children with IQ scores under 50 tend to have more known and/or severe biological risk factors. Males are 1.6 times more likely to be classified with ID than females, which remains constant across all levels of cognitive impairment (Hodapp & Dykens, 2005); a comparison of low-income and high-income families across countries revealed a trend toward a higher prevalence of ID in low-income families (Maulik, Mascarenhas, Mathers, Dua, & Saxena, 2011); individuals from nonwhite ethnicities are more likely to receive a diagnosis of ID than those who are white (Emerson, 2012), and black individuals from low-income families are significantly more likely to have an elevated risk for both mild and severe ID, with causes unknown listed for 50% of the cases (Croen, Grether, & Selvin, 2001).

TABLE 11.1. Risk Factors for Intellectual Disability



Timing	Biomedical	Social	Behavioral	Educational
Prenatal	1. Chromosomal disorders 2. Single-gene disorders 3. Syndromes 4. Metabolic disorders 5. Cerebral dysgenesis 6. Maternal illness 7. Prenatal age	1. Poverty 2. Maternal malnutrition 3. Domestic violence 4. Lack of access to parental care	1. Parental drug abuse 2. Parental alcohol use 3. Parental smoking 4. Parental immaturity	1. Parental cognitive disability without supports 2. Lack of preparation for parenthood
Perinatal	1. Prematurity 2. Birth injury 3. Neonatal disorders	1. Lack of access to prenatal care	1. Parental rejection of caretaking 2. Parental abandonment	1. Lack of medical referral for intervention services
Postnatal	1. Traumatic brain injury 2. Malnutrition 3. Meningo-encephalitis 4. Seizures 5. Degenerative disorders	1. Impaired child–caregiver interaction 2. Lack of adequate stimulation 3. Family poverty 4. Chronic illness in the family 5. Institutionalization	1. Child abuse and neglect 2. Domestic violence 3. Inadequate safety 4. Social deprivation 5. Difficult child behaviors	1. Impaired parenting 2. Delayed diagnosis 3. Inadequate early intervention services 4. Inadequate special education services 5. Inadequate family support

Note. From Schalock et al. (2010). Reprinted with permission from the American Association on Intellectual and Developmental Disabilities.

There are over 300 biomedical syndromes known to be associated with intellectual impairments. Several pre- and perinatal risk factors and social risk factors also contribute to ID. Timing of the risk factors and their combination may also affect resulting intellectual impairments or their remission. For instance, if newborn screening (NBS) results in finding one of over 50 metabolic disorders known to be associated with ID, and, if it is treated in a timely fashion with the proper metabolic antidote, the child may develop normally rather than die young or have a severe and enduring ID. The classic case is phenylketonuria (PKU; Koch, 1997). NBS has now been adopted in most developed countries and in many underdeveloped countries.

By contrast, an infant with an otherwise typical birth who is raised in an impoverished environment without proper nutrition, a good caregiving home environment, or early intervention may also have ID that often can be reversed (Ramey & Ramey, 1999) by intensive early intervention whose effects can last into adulthood (Campbell et al., 2014). Studies have also found that psychosocial stimulation is more effective than nutritional supplements in improving both cognition and behavior (Gardner et al., 2005; Walker, Chang, Powell, Simonoff, & Grantham-McGregor, 2006).

Emphasis on early identification and intervention has made a significant difference in prevention of sociocultural ID in the United States (Guralnick, 1997). However, we also know that severe and chronic deprivation can be a direct cause of ID, as highlighted by poor institutional rearing (Rutter, O'Connor, & the English and Romanian Adoptees Study Team, 2004).

Autism Spectrum Disorder

The diagnostic criteria for ASD have changed since DSM-IV (APA, 2000). The previous criteria in DSM-IV involved three symptom clusters (social interactions, communication, and restricted range of interests and behaviors), with a specific number of symptoms required for diagnosis in each cluster, and onset before age 3. This resulted in a number of diagnoses such as Asperger syndrome and pervasive developmental disorders not otherwise specified. Prior to the publication of DSM-5 (APA, 2013), a work group reviewed the literature and concluded that there was not enough evidence to support clinical distinctions between autism and other subcategories, and that the subcategories did not differ on important variables with respect to etiology, outcome, or response to treatment (Lord et al., 2012). As a result, the three separate domains and the subcategories were eliminated and replaced with a single diagnosis of ASD, which is viewed as a single underlying, continuous factor of symptoms. DSM-5 criteria for ASD include two core behavioral domains, with each having different subdomains of symptoms: (1) *impairments in social communication,* with subdomains (a) social-behavioral reciprocity, (b) nonverbal communication, and (c) developing and maintaining relationships; and (2) *repetitive/restrictive patterns of behavior,* with subdomains (a) stereotyped repetitive speech–motor or use of object, (b) excessive adherence to routines, (c) restricted and fixed interests, and (d) hyporeactivity to sensory input. The domains can be dimensional, depending on the need for intervention and support (APA, 2013). Other criteria include (3) early presentation of the symptoms (age unspecified); (4) deficits in everyday functioning; and (5) behaviors not better explained by ID or global developmental delay. Past diagnoses, such as Asperger's disorder, infantile autism, Kanner's autism, high-functioning autism, atypical autism, pervasive developmental disorder not otherwise specified, and childhood disintegrative disorder, all now fall under the umbrella term ASD. However, some terms, such as Asperger's syndrome, are still used by the public. Many other developmental disorders, such as fragile X syndrome, and behavioral disorders, such as ADHD, overlap with ASD, and should be specified if present. In some cases, ASD can be diagnosed as early as age 1 or 2 (National Research Council, 2001), but the younger the child, the more complex the diagnosis, particularly in terms of distinguishing it from ID and social communication disorder (SCD).

Prevalence

Since the introduction of DSM-IV, the prevalence of ASD in 48 epidemiological studies had a median estimated at 1 in 150 children (Hill, Zuckerman, & Fombonne, 2014). A recent prevalence estimate of ASD from a population record review by the Centers for Disease Control and Prevention (CDC) Regional Monitoring Systems reports an increased rate of 1 in 68 children age 8 in the United States (CDC, 2014b). These recent, higher estimates suggest to some investigators that ASD may be increasing, but the evidence is inconclusive, because they have not adequately considered the recent changes in diagnostic criteria, the age of the children, or sampling bias due to the geographical locations of services studied. For example, there has been an increased public awareness of ASD, and when legislation for special schooling was introduced for children with autism, there was a rapid increase in the number of children receiving a diagnosis of ASD (Gurney et al., 2003). The CDC found considerable variation in the diagnosis of autism between states probably as a consequence of significant variation in access to services (CDC, 2012). Clinicians also have a much better understanding of the clinical presentation of ASD in very young children, as well as those who have higher levels of functioning. Another factor in these increased estimates could be that with the new DSM-5 diagnostic criteria, ASD can also co-occur with other disorders, such as Down syndrome or ADHD. It is interesting that the prevalence of ID (formerly called mental retardation) is decreasing at the same rate that ASD is increasing, which may be the result of “diagnostic substitution” (Le Couteur & Szatmari, 2015; King & Bearman, 2009).

Reports of sex ratios vary, but a recent report indicates that males with ASD outnumber females by a ratio of approximately 4–5:1 (CDC, 2014). Girls with ASD tend to have lower intellectual functioning and fewer repetitive/restrictive behaviors than boys (Amiet et al., 2008). In a large sample of children and adolescents with higher intelligence, the symptom expression for boys and girls was roughly equivalent, except girls had fewer repetitive/restrictive behaviors, which suggests that the greater male ratio might be due to comorbid ID (Mandy et al., 2012). As with ID, many children with ASD who are mildly affected improve with early intervention and are absorbed into the general population after leaving school.

Etiology

ASD, like ID, is heterogeneous. with multiple etiologies and environmental risk factors, including established biomedical, biological (pre- and perinatal), and social (environmental) risk factors that affect the prognosis (Sameroff, 2009). Well over 100 genes and many neurobiological disorders are believed to be contributors to the development of ASD (Abrahams & Geschwind, 2008). Genetic studies have found an elevated risk for ASD among siblings of approximately 19%, with an increased risk rate of 3:1 in males versus female siblings (Ozonoff et al., 2011). There is also a high concordance in ASD among monozygotic twins, with rates ranging from 37 to 90%, and 0 to 23% in dizygotic twins, suggesting a strong genetic component in at least 15% of children with ASD. Others have reported that relatives of individuals with ASD exhibit subthreshold autism-like traits, with estimated rates of up to 20% compared to 5–10% in control families (Sucksmith, Roth, & Hoekstra, 2011). Genomic approaches to assessment are now becoming standard clinical procedure (Butler, Youngs, Roberts, & Hellings, 2012), which may assist in the diagnosis but have been of limited value as yet for intervention and treatment, except for genetic counseling (see Rutter & Thapar, 2014, for a review). Other familial factors are close spacing of pregnancies, advanced maternal or paternal age, and extremely premature birth (Cheslack-Postava, Liu, & Bearman, 2011; Croen, Najjar, Fireman, & Grether, 2007; Johnson et al., 2010). Although the research is limited, some differences have been reported for ethnic groups, with higher rates for white Americans than for Hispanic individuals (Zaroff & Uhm, 2012), and white Americans receive a diagnosis 1½ years before African American children and 2½ years before Latino children (Bernier, Mao, Yen, 2010). These findings suggest a possible bias in clinical practices and/or difficulties accessing services (Klinger, Dawson, Barnes, & Crisler, 2014).

Electroencephalographic (EEG) abnormalities and seizures have been observed in 20–25% of children with ASD, whereas the comparable incidence among children in the general population is only 1–5% (Volkmar & Nelson, 1991; Volkmar, Paul, Rogers, & Pelphrey, 2014). Postmortem studies have found abnormalities in the limbic system and cerebellum (Bauman & Kemper, 2006) and EEG studies also suggest disorders of the cerebellum of children with ASD (Courchesne, 1995). Brain size of some children with ASD appears to be larger than normal (Wolff et al., 2012). Elevation of peripheral, but not central, serotonin levels exists in a significant number of children with ASD (Anderson, 2014).

Developmental Course and Comorbidity

Developmental course and comorbidities are often difficult to distinguish among infants and young children with ID, ASD or SCD (see Klinger et al., 2014, for a review of development). The most significant concern of parents at this age is usually infants' failure to reach language and motor milestones, but parents also may have many other concerns, especially severe behavior problems (Schroeder, Courtemanche, & Hellings, 2013). Children at risk for ASD often are thought to be deaf because they lack pointing and gesturing skills, joint attention, or interest in socializing. In addition, they usually do not respond when spoken to, whereas this is not true for children with ID or SCD. Children with ASD also evidence restrictive/repetitive behaviors, (e.g., stereotyped repetitive speech–motor function or use of object), stimulus overselectivity, insistence on sameness, hoarding, and excessive ordering of toys more frequently and intensely than among young children with ID (APA, 2013). Differentiation between the disorders becomes clearer by age 2 years or more.

A population-based study of children with ASD found that 71% met criteria for at least one current psychiatric disorder, 41% had two or more, and 24% had three or more diagnoses (Simonoff et al., 2008). The most common comorbid disorder with ASD is ID, which is a strong predictor of prognosis (Matson & Shoemaker, 2009). Earlier studies reported that the median rate of ID in individuals with ASD was 70.4% (range 40–100%), with 29.3% reported to have mild to moderate ID, and 38.5% reported to have severe to profound ID (Fombonne, 2005). More recent studies indicate a lower rate of comorbidity between ASD and ID of approximately 31%, with higher rates among females with ASD (CDC, 2014). These reduced rates are thought to be due to the increased rates of diagnosis of ASD in higher functioning individuals and the effectiveness of early intervention (Matson & Shoemaker, 2009). It is estimated that 3–78% of children with ASD also meet criteria for ADHD (Gargaro, Rinehart, Bradshaw, Tonge, & Sheppard, 2011), and children with comorbid ASD and ADHD also have higher rates of oppositional behavior (Grzadzinski et al., 2011). Children with ASD often show many of the comorbidities and behaviors that are also found in children with ID, including anxiety, obsessive–compulsive behaviors, depression, tics, sleep disorders, feeding/eating disorders, elimination disorders, difficulties with impulse control, conduct problems, stereotyped behaviors, aggression, and self-injury. They tend to occur more frequently among children with ASD than those with ID, but the topography between the two diagnoses are not very distinguishable (Matson, Hess, & Boisjoli, 2010). These behaviors are usually responsive to behavioral intervention and tend to improve with age. As might be expected, those with more severe genetic and biological disorders are more likely to deteriorate in functioning with age into adulthood.

ASSESSMENT OF DEVELOPMENTAL DISABILITIES

Clinicians who have experience assessing and working with children across the ability range should conduct the individual assessments. A multimodal interdisciplinary approach to assessment is needed to provide a comprehensive skills- and need-based assessment that leads to recommendations for effective psychoeducation, interventions, and support for the individual family and child (Leckman & Taylor, 2015). Children with a diagnosis of ASD and/or ID should also have periodic reviews and reassessments, particularly at times of transition (starting or changing school, onset of puberty or transition into adulthood). Additional pressures or increased expectations can lead to deterioration of functioning, additional behaviors, and co-occurring mental disorders.

Medical conditions such as epilepsy may also affect the long-term functioning of children with either ASD or ID, or both.

There are now many screening and in-depth diagnostic assessment instruments, standardized on the ID and ASD populations. These can be found in an extensive review of instruments for assessment of ID by Matson (2007) and for ASD in Volkmar, Paul, et al. (2014). Several observational tools are also likely to be needed in order to assess performance and specific needs for support required by children in their ecological environment. We review the most useful assessment instruments of ID and ASD for clinical purposes according to the Comprehensive Assessment-to-Intervention System (CAIS; see Chapter 2).

Step 1: Initial Contact

Sometimes parents are seeking another opinion on a diagnosis they have received elsewhere. It is important to learn what they have been told, by whom, and why they are seeking a second opinion. If possible, it is helpful to receive a copy of the earlier diagnostic report before meeting with the parents. It should be noted that most pediatricians and health care professionals have not received formal training in the diagnosis and treatment of ID or ASD, and a second opinion is often warranted. Since children suspected of ID and/or ASD usually have several problems about which parents are very apprehensive, special care should be given to instilling confidence in parents that they will receive help.

Parents should be asked to complete a general questionnaire (e.g., our General Parent Questionnaire; see Appendix B), to help define the problem. They should also be given the Parenting Stress Index, Fourth Edition (PSI-4; Abidin, 2012), to assess their stress level related to parenting and their child's behavior. Depending on the parents' specific concerns, they might fill out a brief screening questionnaire, such as the Parent Concerns Questionnaire (Schroeder et al., 2013), if ID is suspected, or the Social Communication Questionnaire (SCQ; Rutter, Bailey, & Lord, 2003) if ASD is suspected. Another more elaborate screening instrument for younger children is the Baby and Infant Screen for Children with Autism Traits—Parts 1, 2, and 3 (BISCUIT; Matson & Tureck, 2012), which is much longer and more detailed. If there are behavioral concerns, the Aberrant Behavior Checklist (ABC; Aman, Singh, Stewart, & Field, 1985) focuses on stereotyped behavior, irritability, hyperactivity, withdrawal and language, and the Behavior Problems Inventory (BPI; Rojahn, Matson, Lott, Esbensen, & Smalls, 2001; Rojahn et al., 2012) focuses on stereotyped behavior and aggression. These instruments are described in Appendix A. As much of this screening information as possible should be examined before the parent and child interviews.

Step 2: Initial Intake Interview

Parent Interview

It is recommended that the child attend the first interview with his or her parents, so that parent–child interactions can be observed. If the child becomes disruptive, then someone should be available to care for the child so that the parents can continue the interview. If at all possible, both parents should attend the initial interview to give their view of the child's strengths and weaknesses, and to make sure they both agree on their concerns about their child, the severity of the problems, the urgency to address them, the intensity of supports needed, and their commitment to spend time working with their child. This interview may take 1–2.5 hours, and subsequent appointments may be necessary to collect all of the information needed. Specific information about their concerns should be collected in a semistructured interview format as follows.

1. *Behavior.* The specific behavior(s) of concern should be defined operationally, and the age of onset, frequency, severity, persistence, situational and temporal characteristics, and its effects on the family should be discussed. The functions of the behaviors' antecedents and consequences should also be examined. There are several questionnaires about behavior functions available if they are needed, such as the Functional Assessment Interview (FAI) Form, Functional Assessment Observation Form (FAOF; O'Neill et al., 1997), and Questions about Behavioral Function (QABF; Matson & Vollmer, 1995).

2. *Developmental history.* Many parents often suspect something is wrong at a very early age, but are told by their pediatrician that the child will "grow out of it." There are only about 800 developmental pediatricians in the United States, and most other physicians have limited formal training in child development. Therefore, developmental history should be probed carefully, to determine whether a more thorough developmental pediatric examination is warranted.

3. *Differential diagnosis and comorbidity.* Other possible comorbid neurodevelopmental disorders should be considered as well as diagnoses, such as fragile X syndrome, Prader–Willi syndrome, Williams syndrome, and seizures. The presence of many of these syndromes will affect the severity and prognosis for a positive outcome as the child grows older.

4. *Medical history.* If the child has had a medical history taken, this should be reviewed. If a medical history is not available, it should be requested, along with a release form for the clinician to talk with the doctor.

5. *Parent–child interaction.* Asking parents to describe a typical day from waking through bedtime can help to elaborate how their child interacts at home with them and with his or her siblings, how they react to behaviors, and how they handle misbehaviors,

compliance, communication, reward, punishment, and so forth.

6. *Parent and family characteristics.* It is important to review the parents' mental and physical well-being, as well as the functioning of siblings. Stress levels of parents with children who have ID and/or ASD may be high, which can affect marital and sibling relationships. Because of genetic influences, parents and siblings might also have milder versions of their child's disorder. The home/family environment may or may not be conducive to carrying out a program for children with ID or ASD (Sameroff, 2009).

Child Interview

The child interview may be semistructured in an informal play situation, with the parents present and then absent, to see how the child reacts to being alone with an unfamiliar person. Ability to play alone, the antecedents and consequences of problem behaviors, joint attention, sociability, communicativeness, and, if possible, getting the child's view of his or her problems, all help to give an initial impression of the child's strengths and weaknesses.

Step 3: Observation of Behavior

Considerable research in ID suggests that rating scales tend to overestimate an effect, whereas direct observations are more conservative estimates of a behavior. Both types of samples generally correlate poorly ($r < .50$), but both yield useful information (Schroeder, Richman, et al., 2014). *Functional analysis* is a widely used standardized methodology for observing behavior in response to different stimulus and reinforcement contingencies (Iwata et al., 1994). It is usually done in an analogue setting. For instance, the child and clinician can go into a small room with a one-way glass and toys, and the child is given instructions to play. There are usually four 5- to 10-minute interactions, and in each the therapist counterbalances four reinforcement contingencies for behavior: attention, ignoring, escape, or giving a tangible object reward. Breaks are given between interactions. After the session, the data are analyzed for their frequency and the intensity of the target behaviors, and their function is inferred. Wacker et al. (1998) adapted this procedure for clinic and home use. It also can be used effectively via telemedicine (Wacker et al., 2011, 2013). The methodology and interpretation are complex, requiring special training, but the information yielded can be very important for planning treatment. Some checklists also have companion observation forms, for example, the CBCL, the BASC (see Chapter 2), and the Autism Diagnostic Observation Schedule–2 (ADOS-2; Lord, Rutter, et al., 2012).

Step 4: Further Assessment

After screening and initial interviews, the clinician needs to decide whether to do a formal assessment of ID or ASD, or to refer the family to a comprehensive center that specializes in such evaluations. There are now University Centers for Excellence in Developmental Disabilities (UCEDDs) in every state in the United States that specialize in comprehensive assessment of DD in childhood, including ID and ASD (*www.aucd.org*). There are also many public and private programs for comprehensive evaluation and treatment of ASD (see Thompson, 2007, for an extensive list of resources). These programs may need to be accessed for complex cases with multiple problems. In some cases, however, the diagnosis is straightforward and the child can be evaluated and diagnosed in the clinician's office.

Further Assessment of Intellectual Disability

According to the AAIDD diagnostic manual (Schalock et al., 2010), assessment of ID may have three functions: diagnosis, classification, and planning and development of a system of supports, each of which may have several purposes, such as establishing presence of ID, planning for supports needed, and eligibility for services, benefits, and legal protection. Each of these functions may have several specific assessment tools. We only consider the assessment tools necessary for a diagnosis of ID, including intelligence tests, adaptive behavior scales, documented age of onset (< 18 years), social history, and educational records.

The criterion for diagnosis of ID is approximately two standard deviations or more below the mean of the intelligence quotient (i.e., IQ = 70), considering the standard error of the measurement of the specific instruments (3–5 IQ points) and their strengths and limitations. The word *approximately* connotes the role of clinical judgment in weighing the accuracy and precision of interpreting a test score. The criterion for a diagnosis of ID must be met by using both an intelligence test and an appropriate adaptive behavior scale.

Choosing the appropriate intelligence test should be guided by several cautions and considerations, including fairness (verbal vs. nonverbal clients with receptive but not expressive language, or motor impairments of clients; e.g., with cerebral palsy); practice effects from previous testing; comparability of scores across different tests; age of the child; less valid extreme scores on most standardized tests; and the examiner's credentials. In addition, Flynn (1984) found that IQ scores had been increasing in the United States over the years. This *Flynn effec*t may be due to a variety of reasons, such as better nutrition, cultural changes in school testing, and child-rearing practices. Therefore, a precaution is in order when comparing a child's current and previous test scores. If the score goes up, we look for reasons why this might have happened (i.e., the child may have moved to a better school). If the score goes down, we consider environmental factors causing the change. The most recent standardized version of the test should always be used.

The most widely used intelligence tests are the Wechsler Intelligence Scale for Children, Fifth Edition (WISC-V; Wechsler, 2014), and the Stanford-Binet Intelligence Scale, Fifth Edition (SB-5; Roid, 2003). However, depending on age and the severity of sensory or motor impairments, alternative scales, such as the Slosson Intelligence Test, Revised (SIT-R3; Slosson, Nicholson, & Hibpshman, 2002) or Bayley Scales of Infant Development (BSID III; Bayley, 2006) may be necessary. The SIT-R3 is a quick, reliable index of intellectual ability in both adults and children (ages 4 to 65) that can also be used for children with visual impairment. The BSID III is for younger children with five subscales and may take 30 to 90 minutes to administer.

Scales of adaptive behavior are informant scales that cover (1) conceptual skills (i.e., language, reading, writing, money, time, and number concepts); (2) social skills (i.e., interpersonal skills, social responsibility, self-esteem, gullibility, rule following, avoiding victimization, social problem solving); and (3) practical skills (i.e., personal care, occupational skills, use of money, safety, health care, travel/transportation, schedules/routines, technology use). The two most widely used standardized scales are the AAIDD Adaptive Behavior Scales (ABS; Nihira, Leland, & Lambert, 1993), and the Vineland Adaptive Behavior Scales, Third Edition (Vineland-3; Sparrow, Cicchetti, & Saulnier, 2016). The clinician should take into account factors that are likely to influence adaptive behavior scores: the competence of the informant, the sociocultural context and expectations, the relevance of the living environment, and the opportunities to participate in community life.

Further Assessment of Autism Spectrum Disorders

After screening and interview data have been collected and analyzed, the clinician may decide to proceed with a formal diagnostic assessment of ASD or refer to a UCEDD or other comprehensive treatment program. Some children present with unmistakable signs of ASD and can be easily diagnosed by an experienced clinician. However, the majority of cases are complex, and diagnosis may be difficult. In some programs (e.g., in the Treatment and Education for Autistic and Related Communication Handicapped Children [TEACCH] program; Mesibov, Shea, & Schopler, 2004), children experience an extended assessment in which they are observed several months after initial testing, in order to confirm a diagnosis. In the past two decades, increased concerns for early identification and early intervention have encouraged new instruments that allow assessment in one or two clinic visits. The American Academy of Child and Adolescent Psychiatry (AACAP) has issued a “Practice Parameter for Assessment and Treatment of Children and Adolescents with Autism Spectrum Disorder,” based on DSM-5 guidelines

(Volkmar, Siegel, et al., 2014), which are given below. This diagnostic evaluation may take several hours and is usually scheduled over several appointments.

Depending on the severity of the child's symptoms, an appropriate choice of intellectual assessment instrument is needed to rule out ID as the major source of the child's symptoms. For infants and toddlers, the BSID-III (Bayley, 2006) may be useful. For children older than 3 years, a standardized test, such as the Wechsler Preschool and Primary Scale of Intelligence (WPPSI) or WISC may be useful if their functioning level is high. If they are functioning at a lower level, the Psychoeducational Profile—Revised (PEP-R; Schopler, Reichler, Bashford, Lansing, & Marcus, 1990) may be useful.

The current "gold standards" for assessment of ASD are the semistructured Autism Diagnostic Inventory—Revised (ADI-R; Rutter, LeCouteur, & Lord, 2003) and the ADOS-2 (Lord, Rutter, et al., 2012). The ADI-R is a 94-item informant interview covering current concerns, early development milestones or loss of language and other skills, language and communication functioning, social development and play, interests and behaviors, general behaviors and problem behaviors, and special isolated skills. It takes 40–60 minutes to administer. The ADOS-2 is a semi-structured observation session of the child in a play setting with standard activities that allow the examiner to observe behaviors that have been identified as important to the diagnosis of ASD. It contains four modules based on verbal skills: (1) preverbal, (2) use of phrases, (3) fluent speech (child–adolescent), and (4) fluent speech (adolescent–adult). The examiner chooses the module most appropriate for the particular child's level, taking notes during administration and coding the overall ratings immediately after the session. Each module takes 30–45 minutes to administer. A diagnosis is formulated, with a different algorithm for each module. The ADI-R and ADOS-2 require specific training, and a certification program is available through the publishing company (Western Psychological Corporation). It should be noted that some briefer screening instruments for ASD (e.g., the Childhood Autism Rating Scale–2 [CARS-2; Schopler & Van Bourgondien, 2010] and the SCQ [Rutter et al., 2003]) also correlate highly with the more elaborate ADOS-2 and ADI-R in predicting ASD (Ozonoff, Goodlin-Jones, & Solomon, 2005; Ventola et al., 2006). A variety of other instruments have also been developed to assess specific aspects of ASD at different ages (see Ibanez, Stone, & Coonrod, 2014; Lord, Corsella, & Gradzinski, 2014, for reviews).

Step 5: Collaboration with Other Health Care Professionals

All children suspected of ID or ASD should receive appropriate assessments from other disciplines as indicated, especially medical (developmental pediatrics, neurology, psychiatry), special education, intellectual, and communication assessments. Genetic assessments may also be important, as there are several behavior phenotypes that have a higher incidence of ID and ASD including fragile X syndrome, dyslexia, Prader–Willi syndrome, Angelman syndrome, Cornelia de Lange syndrome, tuberous sclerosis, Tourette's disorder, ADHD, and Down syndrome (Thompson, 2007). Occupational therapy and physical therapy may be important to evaluate sensory and/or motor abilities. Sleep disorders are also common in children with ASD.

Step 6: Communication of Findings and Treatment Recommendations

The clinician should review all of the findings from the screening, interviews, and diagnostic assessments, giving a summary of conclusions and possible treatment approaches. This information can be devastating for a family, and it should be conveyed in a positive and optimistic way. Most children can improve with appropriate treatment, so prognosis should be carefully explained.

Conversely, as a result of false information, many families have been led to believe that their child with ASD will become "normal" with treatment. There are over 50 fad diagnoses and treatments available on the Internet that are not based on sound scientific evidence, such as a vitamin B_{12} diet, a gluten-free/casein-free diet, non-vaccination and non-immunization, secretin, chelation, acupuncture, and so on (for reviews, see Levy & Hyman, 2005, 2011; Smith, Oakes, & Selver, 2014; Thompson, 2007). These should be discussed with the parents. Plans for family supports and accessing appropriate intervention should be suggested. In addition, parent networks may be available to help new parents negotiate the disability system in their locale. These should be identified as soon as possible, so that the parents do not feel alone with their new diagnosis. A written summary report documenting the findings should be given to the parents during feedback, so that they can digest the findings and possibly use the report to receive services at school or through other community organizations. The clinician should also be available after the feedback, because the parents may have further questions after receiving the information and reading the report.

TREATMENT OF DEVELOPMENTAL DISABILITIES

Treatment for children with ID and ASD involves a multimodal and multimethod approach: targeting areas for behavioral intervention; altering the environmental stimuli and consequences; and undergoing family training while considering the family's strengths and weaknesses, the child's comorbid conditions, and addressing the main reasons for referral, as well as any medical issues. Psychopharmacological intervention in combination with behavioral intervention is used in a significant number of children with ID and/or ASD. Depending on their age, between 35 and 70% receive psychotropic medication for behavior problems in childhood and adolescence (Aman, Lam, & Van Bourgondien, 2007; Esbensen, Greenberg, Seltzer, & Aman, 2009; Volkmar, Siegel, et al., 2014). Both of these areas are discussed in this section.

Programmatic Considerations

Given that a diagnosis of ID and/or ASD is likely to be a life-changing experience for most families, it is important to connect them to a network of caregivers who will introduce them to the basics of having a child with a disability. Most states have programs with veteran parents who can help families with social supports, accessing public programs available to assist them, and legal assistance. The family is the primary advocate for a child with ID or ASD, and they must be an integral part of the treatment process.

There are federally supported programs in every state for at-risk children under age 36 months, that is, the Birth-to-Three Early Intervention Programs (Individuals with Disabilities Education Improvement Act of 2004 [IDEA], Part C). For children over age 36 months, the Early Childhood Services (IDEA, Part B) provide preschool and kindergarten programs that help prepare the child for school. There are also many state-supported, evidence-based comprehensive treatment programs for children with ID and ASD, such as Division TEACCH in North Carolina (Mesibov et al., 2004), as well as 15 National Institutes of Health (NIH)-funded Autism Research Centers of Excellence with extensive clinical programs (see Thompson, 2007) and other public programs (for reviews, see Handleman & Harris, 2001, 2006). Families should be alerted to these resources.

Determining Areas of Intervention

How do parents choose the right program for their child? In the Birth-to-Three Program (IDEA, Part C), the family develops an Individual Family Service Plan (IFSP) to guide their child's intervention. It is not possible to review all of the early intervention programs, but the ones that have proven most successful over the past four decades generally adhere to the following guidelines:

1. Use direct instruction, such as *applied behavior analysis*, rather than aiming at more global cognitive function, such as "Theory of Mind" (Baron-Cohen, 1997) or "Floor Time," (Greenspan & Wieder, 2006), for which there is little evidence. Some evidence-based treatment programs use *discrete trial learning* (a skill is broken down into small, discrete steps) to begin the learning sequence (Lovaas, 1987), then moves on to *pivotal response training* (e.g., teaching the child to communicate rather than to aggress toward others, in order to achieve a desired goal, or teaching the child to attend in order to enhance learning opportunities) (Koegel & Koegel, 1995). Intensity of

instruction may vary, lasting up to 40 hours per week, according to the severity of the child's problem (see Reichow & Barton, 2014, for a review). Most children with ID or ASD do not receive such intense treatment. The average is closer to 25 hours per week (National Research Council, 2001). Higher functioning children often receive cognitive-behavioral evidence-based treatments in a play setting, such as the Early Start Denver Model Program (Rogers, Dawson, & Vismara, 2012). See Rogers and Vismara (2014) for a review of programs for infants and toddlers at risk for ASD.

2. Establishing stimulus control (getting the child's attention) is an important initial step. Little learning can occur until stimulus control has been achieved. *Joint attention* of parent and teacher with objects (triadic eye gaze) and proximal and distal pointing are very important with infants and toddlers with ID and ASD (Murza, Schwartz, Hahs-Vaughn, & Nye, 2016).

3. Avoid occasions for upset and behavior problems as much as possible. Power struggles usually interrupt the learning sequence. If necessary, pause and resume training later. Behavior interventions, such as time out, should be as brief as possible.

4. Capitalize on momentum. Very often early intervention is aimed at training language. Once the child learns a pivotal language response, he or she is in the behavioral reinforcement trap (e.g., language becomes self-reinforcing). For instance, once the child discovers that certain sounds represent certain words, he or she becomes aware of the connection between sounds and spoken language, and learning to speak can progress rapidly because it is self-reinforcing. This phenomenon is also true of many other behaviors.

5. Introduce more complex skills gradually, breaking them down into small units.

6. Promote generalization to other times and other settings.

7. Individualize the intervention according to the skills the child has to build on.

8. Keep objective data on progress.

9. Work closely with the family. All evidenced-based programs for children with ID and ASD rely on parent training. The child is likely to be learning from the parents approximately 70% of the time, and with professionals 30% of the time. Parents often need specific help to deal with the child's behavior problems, nutrition, exercise, and health, and they need support to deal with stress, financial resources, legal advice, and family empowerment. They also need to have regular input on the development of solutions for their child's behavior and progress. Siblings and other important people in the child's life should be supported and, whenever possible, included in learning appropriate caring and effective ways to help the affected child become an important functioning member of the family and society.

10. Work closely with the schools. During the preschool period, the child needs to learn basic skills, such as social play, social skills, learning in a group, and

communication skills. It is also an important time to deal with any behavior problems. For example, for children with ASD, repetitive behaviors can be an issue if they interfere with learning.

When the child makes the transition to school, an Individualized Educational Plan (IEP) may be developed with his or her teacher and the family. The previous principles apply the same as during the preschool years, but now the child is expected to be more independent, to focus more on academic topics, to fit into group instruction, and to self-assess his or her performance. A preschool transition program can help the child progress into early academic skills, such as social studies, art, dance, science, mathematics, language arts, and, in later years, preparation for work and adulthood. Social skills programs for older students (e.g., Kamps et al., 1992), help them to build peer networks and adapt to their social environments.

The most significant barrier to the child's progress in preschool and elementary school is usually behavior problems, especially hyperactivity, aggression, stereotyped behavior, and self-injurious behavior. These behaviors are often the major reason for exclusion of children with ID and/or ASD from regular school programs. They are also the major reason for administration of psychotropic medications.

Behavioral Interventions

Behavioral interventions usually work well for both ID and ASD populations. The main differences are likely that, as children age, intervention for children with ASD more often target their symptom clusters of lack of social communication skills and restrictive repetitive behaviors that interfere with learning more than they do for children with ID. Significant risk factors for behavior problems are age (the younger treatment begins, the better); gender (boys are at higher risk than girls); diagnosis (ASD is a higher risk for behavior problems than is Down syndrome or DD of unknown etiology); and lower intellectual level, lower communication level, more severe visual impairment, and lower parent education and family income. These risk factors also tend to interact to affect the caregiving environment (Schroeder, Marquis, et al., 2014).

Behavioral interventions for behavior problems of children with ID and/or ASD are still the treatment of choice by most clinicians and families. There are over 5,000 studies, mostly single-subject case studies, supporting a wide array of behavioral treatments for behavior problems in different subpopulations and settings. Reviews of some of these studies (e.g., Kahng, Iwata, & Lewin, 2002) suggest that only 10% have done follow-up beyond 6 months, which makes it difficult to determine the lasting effects of these treatments. Long-term follow-up studies that have been conducted with severe behavior disorders, such as chronic aggression and self-injury in adults (Schroeder et al., 1982; Taylor, Oliver, & Murphy, 2011) suggest relapse for a substantial proportion (over 70%)

of treated severe cases.

A currently very popular comprehensive system of treating behavior problems is positive behavior support (PBS; Carr et al., 1999). It features a comprehensive lifestyle change (see O'Neill, Jenson, & Radley, 2014, for a review) that utilizes rearrangement of the environment to enhance quality of life and to minimize the occasions for behavior problems. It involves (1) the integration of multicomponent interventions (e.g., functional communication training, rearrangement of the setting occasions for misbehavior, and reinforcing behaviors that compete with the problem behavior); (2) an emphasis on prevention (e.g., avoiding stressful interactions when the child is irritable or drowsy); (3) flexibility in practices (e.g., giving the child a choice of activities when possible, such as a change in the curriculum, task materials); and (4) multiple theoretical perspectives (e.g., behavior-analytic, cognitive-behavioral, and ecological approaches to make the misbehavior ineffective, inefficient, or irrelevant by not reinforcing it rather than punishing it. As with other behavior intervention systems, however, adequate data on lasting effects, especially for severe cases, are still not available.

Recent studies have suggested an onset of some behavior problems among infants and toddlers with ID and/or ASD as early as age 6 months (Berkson & Tupa, 2000; Richman, 2008; Schroeder, Marquis, et al., 2014). In the latter study, a moderate early intervention that was used for a year included bimonthly evening training workshops with the families on the basics of raising a child with a disability and monthly supportive telephone follow-ups by the staff. This resulted in significantly decreased behavior problems for 57% of 180 children (Oyama-Ganiko, Mayo-Ortega, Schroeder, & LeBlanc, 2013). Five-year follow-up of 52 children showed that only a few children still had severe behavior problems. Early identification and early intervention as soon as possible appears to reduce the risk of later severe, intractable behavior problems in some infants and toddlers at risk for ID and/or ASD.

Intervention in Medical/Health Aspects

It is not possible to summarize all of the hundreds of studies on the psychopharmacology of children with ID and/or ASD. However, several reviews of this literature are available for ID (Courtemanche, Schroeder, & Sheldon, 2011; Rojahn, Schroeder, & Hoch, 2008; Schroeder et al., 2013) and for ASD (Volkmar, Siegel, et al., 2014). AACAP (2009) has published general guidelines for all psychotropic medications used with children, including atypical antipsychotic medications, which are the most frequently prescribed medications for children with ID and/or ASD and behavior problems. Table 11.2 summarizes the most commonly used psychotropic medications and their potentially adverse side effects for children and adolescents with ID and/or ASD.

TABLE 11.2. **Optimum Daily Dose Ranges and Adverse Side Effects of Psychotropic Medications Used Most for Children and Adolescents with ID and/or ASD**

Drug class	Generic name	Trade name	Daily dose (mg)	Side effects[a]
Atypical antipsychotics	Risperidone	Risperdal	0.5–4	2, 3, 4, 6, 8, 11
	Olanzapine	Zyprexa	1.25–30	2, 3
	Quetiapine	Seroquel	50–800	1, 2, 3
	Aripiprazole	Abilify	1–30	2, 3, 12, 13
Serotonin uptake inhibitors	Clomipramine	Anafranil	50–250	1, 2, 3, 7, 10, 14
Selective serotonin reuptake inhibitors	Fluoxetine	Prozac	10–80	10, 12, 13, 14, 15
	Sertraline	Zoloft	12.5–200	10, 12, 13, 14, 15
	Paroxetine	Paxil	10–50	1, 2, 10, 12, 13, 14, 15
	Fluvoxamine	Luvox	50–300	2, 10, 12, 13, 14, 15
Mood stabilizers	Valproic acid	Divalproex (DVP)	500–1,500	2, 3, 9, 16
		Depakote (tablet)	500–1,500	2, 3, 9,1 6
		Depakene (liquid)	500–1,500	2, 3, 9,1 6
	Carbamazepine	Tegretol	200–1,200	3, 9, 14
	Gabapentin	Neurontin	100–3,600	3, 9, 12, 14, 17
	Lamotrigine	Lamictal	100–500	3, 9, 14
	Topiramate	Topamax	50–400	3, 9, 12, 14, 17
	Tiagabine	Gabitril	12–56	3, 9, 14, 17
	Lithium carbonate	Eskalith	600–1,800	1, 2, 3, 11, 13, 16, 17
	Lithium citrate	Cibalith-S	600–1,800	1, 2, 3, 11, 13, 16, 17
Narcotic analgesics	Naltrexone	Naltrexone	50–200	10, 11, 13,14, 15
Atypical anxiolytics	Buspirone	Buspar	15–40	12, 14, 15
Beta-adrenergic blocker	Propanolol	Inderal	10–120	1, 3, 15, 17
Stimulants	Methylphenidate	Ritalin	5–60	18, 19, 20

Note. Data from Reiss and Aman (1998); Cheng-Shannon, McGough, Pataki, and McCracken (2004); and Volkmar, Siegel, et al. (2014).

[a] Key to side effects: 1, cardiovascular; 2, weight gain; 3, fatigue/sedation; 4, extrapyramidal symptoms/akathisia; 5, dystonia; 6, tardive dyskinesia; 7, seizures, 8, hyperprolactinemia; 9, elevated liver enzymes; 10, bowel control; 11, enuresis; 12, nausea; 13, headache; 14, agitation; 15, sleep disturbance; 16, tremor; 17, impaired cognition; 18, insomnia; 19, irritability; 20, decreased appetite.

There are essentially no psychotropic medications approved by the U.S. Food and Drug Administration (FDA) for treating the core causes of behavior problems of ID or ASD in children (e.g., genetic, neurobiological, learning problems). Two drugs, risperidone and aripiprazole, have been approved for treatment of the symptoms of aggression in children with ASD and/or ID (Vitiello, 2013). There are, however, over 35 randomized control trials (RCTs) and many controlled case studies of psychotropic medications showing substantial reductions of aggression, stereotyped behaviors, hyperactivity, and self-injurious behaviors in some children with ID and/or ASD (for reviews see Reiss & Aman, 1998; Volkmar, Siegel, et al., 2014). Atypical antipsychotics such as Zyprexa (olanzapine) and Clozaril (clozapine) are dopamine and serotonin modulators. They are called *atypical* because, unlike the older typical antipychotics, such as haloperidol (Haldol), thioridazine (Mellaril), and chlorpromazine (Thorazine), they are less likely to cause debilitating, abnormal, involuntary movement disorders, such as dystonia (awkwardness), dyskinesia (tongue, face, arm and/or trunk uncoordinated movements), or akathisia (restlessness).

The pharmacological mechanisms of action for all of the psychotropic drugs are currently a matter of intense research. Many children receive these drugs as "off-label" prescriptions, which means that even if a drug is not officially approved by the FDA, its use is permissible under current FDA guidelines. These guidelines involve demonstrating a reasonable neurobiological rationale for using the drug and following proper treatment protocols (Vitiello, 2013). However, they should be prescribed with caution by physicians who are trained in their use and aware of their potentially serious side effects, some of which can be fatal. For example, clozapine can cause severe agranulocytosis (loss of white blood cells) if used inappropriately and not monitored correctly. Prescribers also should regularly review behavioral and health data that demonstrates the drug's effectiveness and possible negative side effects.

CASE EXAMPLE: INTELLECTUAL DISABILITY

Step 1: Initial Contact

Annie, age 7 years, was referred by a developmental evaluation clinic for evaluation and treatment of behavior problems. She had been a typically developing child until age 4, when she suffered encephalitis due to high fever. As a result, she developed seizures, which were very difficult to control with medication. Previous evaluations resulted in a diagnosis of ID. Her parents were asked to send the previous evaluations and to complete the General Parent Questionnaire, BPI, and PSI-4 for Annie, and a BASC-3 for their 4-year-old daughter, Joan, before the initial interview.

The parent questionnaire indicated that Annie was currently attending her local educational program for children with ID and was living at home. Her younger sister was described as a typically developing 4-year-old child, which the BASC-3 confirmed, with all scores within normal limits. Both parents had college degrees, the father had his own business, and the mother was home full-time with the children. The PSI-4 for both parents indicated that they had a good marital relationship, were supportive of each other, were very accepting of Annie, but were stressed with her care. The BPI, which has normative data on people with ID, indicated significantly high scores for aggression and self-injury.

The parents wanted help in dealing with Annie's aggressive behavior, which was particularly evident preceding seizures. They were also concerned about her adjustment in school, as well as her general health and well-being.

Step 2: Initial Intake Interview

Parent Interview

The parents, Annie, and her 4-year-old sister, Joan, came for the initial interview. Both parents and Annie's sister were very pleasant and gentle with her. Annie sat quietly looking at magazines during the interview while Joan played with the dollhouse and often shared with Annie what she was doing. Before Annie's illness, she was described as a happy, sociable child without behavior problems, who was reading and ready to enter kindergarten. At the age of 4 years, she became ill with flu symptoms, developed a very high fever, was hospitalized with encephalopathy, and began having seizures. At that time, she was diagnosed with a complex seizure disorder and referred for assessment to a multidisciplinary clinic for children with DD. She was diagnosed with moderate to severe ID and communication problems but had a number of independent skills (e.g., dressing, toileting, eating) and was able to express her needs. A year after the initial evaluation, her seizures increased and she became increasingly aggressive, had behavior outbursts, and was often noncompliant. This behavior most often preceded seizures and it was thought to be the result of subclinical seizures. At these times, Amy hit the wall, pushed her parents, screamed, and attempted to run from them. The family history revealed no encephalopathy or seizures. At the time, Annie was under the care of a neurologist who had prescribed a combination of seizure medications that were not effectively controlling the seizures, which occurred about 3 to 4 times a week. Both the family and the school had difficulty managing Annie's aggressive behavior and were concerned about her safety. The neurologist prescribed antipsychotic medication for her aggressive behavior, which helped to some degree, but it appeared to make her lethargic; she constantly asked for food, and her weight was rapidly increasing. Her parents were understandably concerned about her future.

The family had a circle of friends, were involved in their church, and had grandparents nearby who were supportive and helped with child care. Joan was in a half-day preschool program, often had playdates, and each of the parents tried to spend time alone with her every day. While Annie did not pay a great deal of attention to Joan, they were described as having a pleasant relationship, and Joan tried to engage Annie in her play. The family's daily routine was structured and consistent, with clear expectations for appropriate behavior, but the parents indicated that they did not put many demands on Annie except for the daily routine, with which she was most often compliant. However, if the parents did not understand her requests, Annie would talk loudly, scream, push them, throw something, or hit the wall. This happened about five times a week but mostly before a seizure. The parents responded by talking calmly to Annie or redirecting her to another activity.

Child Interview

Annie separated from her parents easily, appeared lethargic, and had difficulty speaking in more than two- or three-word phrases. She said "yes," "no," "let's go," and unintelligible words and became upset (raised her voice and continued repeating the words in a frustrated manner) if she was not immediately understood. Her receptive language was also limited, but she responded briefly to questions about what she did and did not like and followed simple directions.

Step 3: Observation of Behavior

During 5 minutes of child-directed play and 5 minutes of parent-directed play, Annie showed little interest in anything except looking at magazines, and was not very interested in participating in activities with parents, although she was compliant with prompts and directives. The parents appropriately praised her coloring and her interest in books, but Annie did not want to transition to new activities.

Step 4: Further Assessment

Given that it was over 2 years since Annie's previous psychological evaluation, the psychologist also administered another intelligence test, the SIT-R3, and the Vineland-3 to assess current adaptive behaviors.

Step 5: Collaboration with Other Health Care Professionals

It was recommended that Annie's school be contacted to examine her IEP and to discuss her performance at school. The school was very cooperative and experienced in working with children with DD. Annie was viewed as a difficult child because of her struggles with transitions, poor social skills, and limited participation in educational activities. Annie did, however, like books, had some reading skills, and liked to copy letters, write words, and color. It took extra staff to manage her seizures and remove her from the classroom when she became aggressive. She often appeared lethargic and sleepy, and had poor balance and motor control.

Contact was made with the neurologist, who indicated that Annie's seizures were difficult to control, was concerned about the aggressive behavior, and, after some discussion, agreed that it would be beneficial for Annie to be seen by a child psychiatrist, a child neurologist, and a physical therapist at an interdisciplinary clinic for children with DD. The parents readily agreed to this referral.

Step 6: Communication of Findings and Treatment Recommendations

The findings and recommendations were given to the parents in a meeting with the clinician, the child neurologist, the child psychiatrist, and the physical therapist. The parents were supported for the excellent care Annie received from them and their extended family. Their attention to Joan was also noted, as well as its positive effect on Joan's warmth and acceptance of Annie. They were told that Annie continued to present with moderate to severe ID and adaptive skills, but that her seizure activity and behavior were interfering with her well-being and progress.

It was recommended that the medications for seizure control and her psychotropic medications for behavior be reevaluated to avoid drug–drug interactions, which were likely related to her lethargy, motor control, and somnolence. How this would be done was described in some detail. Given that Annie was performing at the moderate-to-severe level of ID and adaptive functioning, the parents were told that she might need professional supports indefinitely. Her parents were not surprised with the results and recommendations, and were eager to begin working on a solution to Annie's problems.

Course of Treatment

The change in medications was done in an interdisciplinary manner and involved collecting daily information on her seizure activity, behavior, and motoric stability, and using this information to guide decisions on her medications. Fortunately, the clinician regularly consulted with the other health care professionals, and collaboration was easily implemented. First, all of the current medications were tapered off in an appropriate manner, then reintroduced gradually in a logical fashion, one drug at a time, while data on Annie's seizures and behavior problems was recorded daily both at school and at home. Parents and teachers were given appropriate data sheets (the Daily Log, Specific Events of Concern, and the Aberrant Behavior Checklist–C; Marshburn & Aman, 1992) and instructions as to how to fill out the forms. This titration took several months to accomplish.

After 6 months, the most optimal combination of seizure and psychotropic medications was found, and Annie's seizures, behavior problems, lethargy, balance problems, and compliance all improved significantly. Annie's IEP and performance at home were reexamined, and an appropriate school and home program was developed. The parents were taught appropriate behavior management techniques, encouraged to periodically leave Amy for several hours in the care of her grandmother, whom she enjoyed visiting, and each parent was to continue to spend special time alone with their other daughter. They also became experts in observing Annie's behavior and kept careful records of behavior, activities, and medication. With improved and more alert behavior, she was able to participate in school activities, including learning to read and write short stories. She also participated in a respite program that allowed parents to go away for short vacations while she stayed in a group home setting. These respite times also provided the opportunity for staff to develop behavior change programs.

The course of Annie's development was not always smooth. She would have relatively calm, seemingly happy periods followed by irritable mood swings, with physically and verbally aggressive behaviors that were clearly related to increased seizure activity. Medication increases or changes were always problematic, with increased aggression and behavioral outbursts. Transitions were difficult for Annie and changes in school staff, her neurologist, and her psychiatrist all involved major disruptions for her and her family. The clinician continued to coordinate Annie's care and support her parents.

As Annie reached puberty, her seizures increased in duration and severity before and after her menstrual periods. The behavioral outbursts became increasingly difficult for the parents and school to manage, and it was recommended that she move into a group home that provided one-on-one care and be allowed to attend a special education class with her own aide, as needed. Her parents and sister remained committed to Annie and regularly took her home for short visits, and participated in all meetings. Taking careful data, the caregivers could predict high-risk periods for her behavior problems and prepare accordingly to minimize their impact. She received a high school certificate of completion at age 20 and transitioned into an intensive care facility group home that provided specially trained staff that could manage her seizures and behavior.

Now 46 years old, Annie remains in the same group home (26 years!), goes to a special day program during the week, participates in community activities, has a boyfriend from another group home, visits her family regularly, and enjoys cross-stitch, making bead jewelry, swimming, and dancing. Seizures and behavior outbursts before/during seizure activity continue to be problematic, and subsequent medication changes can take months to accomplish. Weight control related to her medications became a major problem, and while Annie stays within an acceptable weight range, it must be carefully monitored.

In summary, Annie will always need special assistance and monitoring, but she has also developed enough skills and interests to engage in a variety of enjoyable activities and participate in life. A consistent care coordinator with expertise in ID, caring/committed parents, behavioral management techniques, collaboration with a variety of agencies and health care professionals, and an appropriate living/working environment all work together to give Annie an optimal life.

CASE EXAMPLE: AUTISM SPECTRUM DISORDER

Step 1: Initial Contact

Frank was referred to a University Affiliated Program (what is now called a UCEDD) when he was 3½ years old, because of suspicion of autism by his pediatrician. Mr. and Mrs. Rock adopted Frank when he was 6½ months old. They were in their late 30s at the time of the adoption, had no other children, and were both successful professionals. They soon became worried about Frank's slow development, his lack of communication, late motor milestones, and restricted interests. Thus, they were very concerned about the possibility of autism. Frank had been attending a local preschool, but the curriculum was not meeting his needs. The parents were looking for a more effective program, but Frank needed a diagnosis to qualify for a more highly specialized program. Frank's evaluation at the state UCEDD involved a home visit, his parents were seen by a social worker, and Frank was seen by a psychologist, a psychiatrist, a developmental pediatrician, a physical therapist, an occupational therapist, a special educator, a speech and communication specialist, and a hearing specialist. The evaluation found Frank to be a healthy child with some gross motor delays, and he was given the diagnoses of autism, mild ID, and a communication disorder. The parents were referred to a psychologist who was part of the UCEDD for early intervention.

Step 2: Initial Intake Interview

Frank and his mother attended the initial interview. The father could not attend due to obligations at work. Since the parents had recently received Frank's diagnoses, the focus of this session was to develop an intervention program that would provide support to the parents and focus on communication skills, developing behavior programs, as needed, and establishing a collaborative relationship with a specialized preschool that could meet his needs.

Mrs. Rock indicated that she had a very busy schedule, and her husband's business required that he work until 9:00 P.M. every evening. Furthermore, there were no relatives living close to the family, and the parents relied heavily on a housekeeper/nanny to care for Frank when he was out of school and Mrs. Rock was not home. She did not know other parents of children with DD and was pleased to get information on a local organization for parents of children with DD. She described a typical day starting at 5:30 A.M. when she got up, waking Frank at 6:00 A.M., feeding and dressing him, and leaving the house by 7:30 A.M. Frank presented no major behavior problems but did not dress himself, was not toilet trained, and did not use utensils to eat (he ate finger food). He was dropped off at preschool by 7:45 A.M. and picked up at 4:00 P.M. by the nanny. At home, Frank was given a snack and played with his cars, looked at books, and loved to rip newspaper into fine strips, making them into patterns. The mother arrived home at 6:00 P.M., ate dinner with Frank at 6:30 P.M., and gave him a bath at 7:00 P.M., which he seemed to enjoy. This was a time when Mrs. Rock tried to engage Frank in play and talk to him. After the bath, she read a book that Frank liked to look at while she read the story. She turned the light off by 7:30 P.M. He did not present problems with going to bed and slept all night. Frank played with cars, looked at magazines, and ripped coloring paper into strips during the interview. Mrs. Rock periodically talked to him or touched/patted him.

Step 3: Observation of Behavior

During child-directed play and during parent-directed play, Frank played alone. He made little eye contact, did not speak or respond to his mother's verbal prompts, and did not hold out his arms to be picked up. He liked to tear paper into fine strips and make patterns. He was compliant. He did not exhibit behavior problems, but he did engage in the repetitive behavior of flapping his hands and was obsessed with keeping his toys in strict order. He did not like transitions and resisted leaving his toys to do something else.

Step 4: Further Assessment

No further assessment was needed.

Step 5: Collaboration with Other Health Care Professionals

Frank's new school was contacted, and plans were made for regular contact.

Step 6: Communication of Findings and Treatment Recommendations

It was decided that work should begin with Frank's expressive communication, since the evaluation indicated that his receptive communication was adequate. At the time, there were no programs capable of this type of training for children with ASD in the area. Although the 60-mile trip to therapy was a serious strain, Mrs. Rock eagerly agreed to do it. The treatment program required Mrs. Rock or the nanny to work a minimum of 2 hours a day with Frank on prescribed tasks that were the result of his weekly sessions. Appointments were set up on a twice-per-week schedule. The psychologist used a modified discrete trial approach for language training, teaching one sound at a time, then pairing the sounds with words.

Course of Treatment

Mrs. Rock brought Frank to the UCEDD for therapy and observed all sessions through a one-way mirror. This consisted of one-to-one language training sessions, teaching Frank the sounds, and proximal and distal pointing, gestures, joint attention, and imitation needed for communication. The family also received training in the use of these techniques so they could conduct sessions at home. In addition, goals were set to teach Frank more adaptive skills such as using utensils, undressing, dressing. The psychologist also went to Frank's special preschool to train the teachers there in how to teach language to Frank.

When Frank was 4½ years old, the psychologist and his mother noticed in one of their sessions that while they were talking, Frank appeared to be reading the newspaper and pointing to words. They immediately began doing word games in which they would say a word in the newspaper (e.g., *toothbrush*) and Frank would point to it but not say it. Later sessions paired the sounds he was learning to written words, and Frank began sounding out the words. Then they labeled everything in Frank's environment, and, when he pointed to an object, they taught him to sound it out. Once he learned this pivotal response, he rapidly learned to ask for things, use complete sentences, and verbally respond to questions in a staccato-like language.

During the next several years, Frank taught himself to play the piano and the organ. He also made intricate collages from faces in magazines and journals, but he would not picture the rest of their bodies. He also had calendar savant skills. If you told him your date of birth, he could tell you the day of the week you were born. He knew all of the words to his favorite songs and sang them in an exact manner. Although, by age 10, Frank had made good progress with speech and academic skills, he was not making the expected progress with socialization skills. His school was also limited in terms of peer interactions. In essence, Frank was well loved and had excellent care at home, but essentially he had very limited peer interactions and only basic self-help skills.

Through a local parent group for children with autism, Mr. and Mrs. Rock and Frank began to attend social activities that included children with autism and their siblings. They became close friends with several of the families and often provided child care for each other. The parent organization also helped them to find an appropriate school for Frank. Frank soon became more independent, and when he graduated from high school with a certificate of completion, the entire graduating class stood up to cheer him!

Frank is now 50 years old, lives in a group home, has many friends, works at a cafeteria, goes home for an occasional weekend and for holidays, attends summer camp with his church group, goes dancing (with an occasional beer!), and takes ocean cruises with his housemates. He has his own computer and music in his room, where he likes to spend time when he is not involved in community activities. He lives a happy and full life and, in his words, he says he is "Going strong!"

RESOURCES FOR CLINICIANS

McVoy, M., & Findling, R. L. (2013). *Clinical manual of child and adolescent psychopharmacology* (2nd ed.). Washington, DC: American Psychiatric Publishing.

National Autism Center, National Standards Project
www.nationalautismcenter.org/national-standards-project

Research Autism
www.researchautism.net/pages/welcome/home.ikml

RESOURCES FOR PARENTS

Aman, M. G., Bensen, B. A., Farmer, C. A., Hall, K., & Malone, K. (2007). Project MED: Effects of a medication education booklet series for individuals with intellectual handicaps. *Intellectual and Developmental Disabilities, 45,* 33–45.

Thompson, T. (2007). *Making sense of autism.* Baltimore: Brookes.

Thompson, T. (2011). *Individualized autism intervention for young children.* Baltimore: Brookes.

PART III

MANAGING STRESSFUL LIFE EVENTS

CHAPTER 12

Siblings and Peers

Adjustment to the birth of a sibling and issues of sibling conflict are among the most common concerns expressed by parents of young children (Kramer, 2004). Eighty percent of children in the United States live with at least one sibling (U.S. Census Bureau, 2015), and it is within the often intense and close relationships between brothers and sisters that children learn important social and cognitive skills. Many argue that sibling relationships are a major influence on the development of individual differences in prosocial and antisocial behavior, as well as aspects of personality, intelligence, and achievement (Dirks, Persram, Recchia, & Howe, 2015; Feinberg, Solmeyer, & McHale, 2012). Research in this area has shown that various family and child factors influence the quality of the sibling relationship. Siblings influence each other's development both directly (by modeling or differentially reinforcing appropriate or inappropriate behaviors) and indirectly (by causing stress for parents, which in turn affects parenting skills). Interactions between two siblings increase rapidly when the younger one is between 3 and 4 years of age, but remain fairly consistent in frequency after that time (Dunn, Creps, & Brown, 1996). Moreover, anger, distress, and conflict decrease as the younger sibling reaches school age and on into adolescence (Dunn et al., 1996; Tucker, Finkelhor, Turner, & Shattuck, 2014). This most likely reflects the children's increased involvement with friends at school and with other activities outside the home.

Sibling relationships are similar but different from peer relationships, in that they are often *vertical* (the participants have unequal status with older siblings), but depending on the age difference of the siblings, may also be *horizontal* (the participants have equal status similar to peers) (Harter, 2008). Interactions between siblings may teach children skills that they then use with peers (Feinberg et al., 2012). Incidents involving conflict, for example, occur with similar frequency between siblings and peers. However, physical and/or verbal aggression occur much more frequently between siblings, and prosocial strategies are more likely to be used with peers, especially friends (Finkelhor, Ormrod, Turner, & Hamby, 2005; Tucker et al., 2014). In this chapter, we first review the research on sibling conflict, critical assessment issues, and suggestions for treatment of sibling difficulties. Then we discuss the literature on peer conflict and review assessment and treatment issues in treating peer difficulties.

SIBLING DIFFICULTIES

The Quality of Sibling Relationships

The birth of a new sibling is a major transition; it often becomes a major source of stress in the life of a young child, and sets the stage for the sibling relationship. The relationship between children and their new sibling is best viewed as ambivalent, because most children evidence both positive and negative reactions to the birth (Kramer, 2010). In a review, Volling (2012) discusses typical negative reactions of an older child to a new sibling, which include increased confrontation with parents, anger and aggression, clinginess, separation distress and other anxious behaviors, more problems with toileting, and/or the demand for a bottle or other "regressive" behavior. These reactions, however, are very individualized per child and often occur by developmental level (e.g., 2- to 3-year-olds show more toileting accidents; 5-year-olds may refuse to go to school). The child's social-cognitive abilities and perspective taking may play a role in these developmental changes; children who are unable to understand the process or manage their emotional responses have more difficulties, particularly with conflict resolution (Recchia & Howe, 2009). For most children who have difficulties, however, these behaviors typically decrease by 4 months after the birth and resolve within 1 year (Baydar, Hyle, & Brooks-Gunn, 1997; Stewart, Mobley, Van Tuyl, & Salvador, 1987). On the positive side, increased maturity, independence, and empathy, as well as intense interest in and curiosity about the new baby, occur along with the more negative reactions (Volling, 2012).

By the end of the first year after the birth of the new sibling, as the younger child becomes more mobile and curious, conflicts between siblings increase dramatically (Dirks et al., 2015; Oh, Volling, & Gonzalez, 2015). At first, the older sibling asserts his or her dominance in the relationship, but by the end of the second year, the younger child is likely to retaliate with aggression, as well as instigate conflict by teasing and provoking the older child. Observational studies of the interaction of preschool children with toddler siblings indicate that conflict occurs about seven to eight times an hour (similar to the frequency of conflict in peer interactions) but is relatively short-lived (e.g., about 30 seconds on average; Hay, Vespo, & Zahn-Waxler, 1998; Perlman & Ross, 2005). Verbal or physical aggression occurs in about 25% of these incidents (Perlman & Ross, 2005). Furthermore, parents have been found to intervene in sibling quarrels 50–60% of the time (Perlman, Garfinkel, & Turrell, 2007). It is no wonder that parents express concern about sibling rivalry!

There certainly are large individual differences in the quality of sibling relationships; some relationships are entirely positive, others are both positive and negative, and still others are very negative. The extent to which siblings engage in cooperative, prosocial, friendly behavior (warmth) has been studied distinctly from the extent to which they fight and argue (conflict) (Dirks et al., 2015). On the positive side, older children often become objects of attachment for their younger siblings, offering comfort, support, and reassurance during times of distress; they also may serve as teachers, role models, and/or substitute caregivers (Buist, Deković, & Prinzie, 2013; Gass, Jenkins, & Dunn, 2007). Sibling warmth can act as a protective factor against later externalizing and internalizing symptoms (Buist et al., 2013; Gass et al., 2007).

Just as friendly behavior begets friendly behavior, so does aggressive behavior lead to increased aggression in sibling relationships. Patterson's *coercion theory* (Granic & Patterson, 2006) may be applied to siblings such that a younger sibling of an aggressive child at first submits to aggressive attacks, therefore negatively reinforcing the aggression and increasing its frequency of occurrence. Later the younger child learns to retaliate with aggression, which leads to further coercive exchanges between the siblings. Up to 40% of siblings are exposed to sibling bullying, which can be more severe and persistent than peer bullying and is related to an increased risk of depression, anxiety, and self-harm in adolescence (Bowes, Wolke, Joinson, Lereya, & Lewis, 2014; Hoetger, Hazen, & Brank, 2015; Wolke, Tippett, & Dantchev, 2015). In addition, siblings can aid in *deviancy training*, teaching another sibling to engage in more antisocial behaviors, by being models of antisocial behavior, reinforcing sibling negative behavior and attitudes, and "turning" that sibling against their parents, which is then related to further externalizing behaviors (Buist et al., 2013; Bullock & Dishion, 2002; Natsuaki, Ge, Reiss, & Neiderhiser, 2009). Although warmth and conflict have often been studied separately, most sibling relationships are not "all or nothing." Sibling relationships can be harmonious (high warmth, low conflict), affectively intense (high warmth, high conflict), conflictual (low warmth, high conflict), and uninvolved (low warmth, low conflict). Those siblings in the conflictual group have the worst outcomes and show more peer problems, even more than the affectively intense group, suggesting that even some warmth in the relationship may buffer problematic outcomes (Buist & Vermande, 2014; Stormshak, Bellanti, Bierman, & the Conduct Problems Prevention Research Group, 1996). In fact, sibling relationships that reflect a balance between support and conflict are most likely to promote social competence (Stormshak et al., 1996). An exception to this, however, occurs when the older sibling engages in deviant behavior, then the younger sibling (more common in brother–brother pairs) is also more likely to engage in this behavior if there is high warmth and high conflict in the relationship (Solmeyer, McHale, & Crouter, 2014).

Factors Influencing Sibling Relations

That sibling relationships can be dramatic and conflictual raises a question of clinical importance: What factors lead to more problematic adjustment from sibling relationships? Given that there is considerable stability over time in siblings behavior toward each other, the variables that influence children's adjustment are important to understand. Table 12.1 summarizes the factors that have been found to influence sibling relationships. These factors are grouped by child factors, parent–child relationship factors, and family factors that can play a role in the quality of sibling relationships.

TABLE 12.1. Factors That Influence the Quality of Sibling Relationships

Source	Factor
Children	Temperament Level of social-cognitive development Age differences Gender differences
Parent–child relationship	Differential treatment Parent intervention in child conflict Lack of clear rules and expectations General child management problems
Family	Marital/couple relationship Parental mental health Life and environmental stress Emotional climate in home Family functioning

Difficult temperamental characteristics of children, including high intensity of emotional response, high activity level, impulsivity, and low persistence, have consistently been associated with more negative sibling relationships (Brody, 1998; Volling, 2012). Stoneman and Brody (1993) demonstrated that when an older sibling has a difficult temperament, this child sets the tone (largely conflictual) for the sibling relationship, regardless of the younger child's temperament. Moreover, ratings of temperament predict the quality of sibling relations, particularly conflict, 5 years later, and may also influence later friendships (McCoy, Brody, & Stoneman, 2002). In addition, as we stated earlier, children's level of social understanding is also related to the quality of the sibling relationship, with children who are able to empathize and take the perspective of their sibling showing more positive interactions (Recchia & Howe, 2009).

There are inconsistent findings of age and gender differences in sibling relationships. Some research has shown that younger children (especially those under age 18 months) have more trouble adjusting to the birth of a sibling than do older children (Volling, 2012). Older children are more likely to be interested in helping to care for the baby, and to be involved with activities and interests outside the immediate family; thus, they are less dependent on their mothers for nurturance and support. In addition, there is some evidence that parents are more accepting of physical aggression between siblings who are closer in age (Tucker & Kazura, 2013). However, it is not clear if age spacing is the key factor in these interactions, and other family process factors may better explain the differences (Oh et al., 2015; Volling, 2012). Similarly, there are some general gender differences, such as sister-sister siblings showing more closeness and brother-brother siblings being more conflictual, but individual dynamics of siblings seem to explain these differences more than just gender (Kim, McHale, Osgood, & Crouter, 2006; Solmeyer et al., 2014).

Child effects have also been seen in research that focuses on siblings of children with developmental (e.g., autism, Down syndrome) or physical disabilities, chronic illness (e.g., cerebral palsy, cancer), or severe mental health issues (Kilmer, Cook, Munsell, & Salvador, 2010; Knott, Lewis, & Williams, 2007; Vermaes, van Susante, & van Bakel, 2012). Siblings of children with developmental disabilities, for example, often take the role of the older child, regardless of their birth order, with the typically developing child prompting his or her sibling about appropriate interactions for different situations (Knott et al., 2007). Also, sibling interactions with a disabled sibling show more warmth and prosocial interactions than those between typically developing siblings (Knott et al., 2007). However, the typically developing sibling is more likely to develop adjustment and/or internalizing–externalizing difficulties; increased internalizing problems are noted particularly in siblings of children with chronic illness (McHale, Updegraff, & Whiteman, 2012; Vermaes et al., 2012). It is suggested that these adjustment difficulties may result from parents spending more time assisting the child with the disability/illness and expecting more caretaking behaviors from the typically developing child, and an increase in exposure to stressful situations, which may be difficult for the typically developing child to handle (Kilmer et al., 2010; Poston et al., 2003; Vermaes et al., 2012). Siblings of children with severe emotional disturbances (SED) share many of the same risk factors of their siblings (e.g., low socioeconomic status [SES], family disruption and conflict, parental psychopathology) and are at particularly high risk of developing difficulties themselves (Kilmer, Cook, Taylor, Kane, & Clark, 2008).

Parental behavior also plays a role in the development of positive or negative sibling relationships (Brody, 1998; Feinberg et al., 2012). More positive parent–child relations are associated with more positive sibling relations, and vice versa (Stormshak, Bullock, & Falkenstein, 2009). In contrast, more punitive or authoritarian parenting leads to more conflict between siblings (Oh et al., 2015). Although most mothers show differential behavior toward their children, it is most likely a reflection of the relative developmental status of the children. The important factor in how differential parental treatment influences the quality of sibling relationships and adjustment appears to be the children's perceptions of unequal treatment (Buist et al., 2013; Coldwell, Pike, & Dunn, 2008). Sibling conflict is likely to increase when a child perceives differential parental treatment as an indication that the parent is less concerned or that the child is less lovable than the sibling. These perceptions are less likely to result when parents are warm, nurturant, and attentive to the thoughts and feelings of each of child (Coldwell et al., 2008; Hoffman & Edwards, 2004).

The ways in which parents intervene in sibling conflict are also important in the development of positive or negative sibling relations. When parents of preschool children do not intervene, most sibling conflicts go unresolved; that is, the younger child will usually just walk away or submit to aggressive behavior, recognizing his or her lower status in relation to the older sibling. However, if parents intervene and suggest more adaptive strategies, sibling conflicts are more likely to end in reconciliation or compromise (Perlman et al., 2007; Siddiqui & Ross, 1999). In contrast, parental use of simple responses (e.g., "Stop it!") without explanations or alternatives and/or their use of control strategies (e.g., physical punishment) are more highly related to sibling violence (Hoffman & Edwards, 2004). Similar results have been found with school-age children; siblings whose parents intervene in conflicts and help coach the children to negotiate evidence greater sibling warmth, whereas siblings whose parents do not intervene and/or who sanction sibling aggression show greater conflict (McDonald & Martinez, 2016; Tucker & Kazura, 2013). Thus, when parental intervention involves teaching conflict resolution strategies (e.g., compromise or reconciliation), rather than just solving the problem or having children "fight it out," children increase their use of these more mature strategies (Perlman et al., 2007; Tucker & Kazura, 2013).

Family factors such as marital/couple distress are related to increased conflict between siblings, perhaps reflecting parental modeling of conflict behavior, anxiety in children caused by witnessing the parents' conflict, and/or an indirect effect of marital/couple conflict on parenting skills (Volling, 2012; Yu & Gamble, 2008). Parental mental health issues may also affect the sibling relationship. Maternal depression, particularly postpartum depression, which occurs in 8–15% of cases, may affect not only maternal attachment to each child but also subsequent interactions and adjustment of both children (Jenkins, Rasbash, Leckie, Gass, & Dunn, 2012; Volling, 2012). In summary, different family stressors may affect the emotional climate in the home and disrupt family functioning, thereby causing difficulties in the sibling relationship (Jenkins et al., 2012). However, sometimes the sibling relationship may have a protective effect relative to stressors if the siblings share a positive, supportive relationship (Gass et al., 2007; Tucker, Holt, & Wiesen-Martin, 2013).

ASSESSMENT OF SIBLING DIFFICULTIES

When parents are concerned about and seek professional help for sibling conflict, it is especially important to examine certain factors during the assessment of the problem. The assessment guidelines presented here follow the Comprehensive Assessment-to-Intervention System (CAIS; see Chapter 2), with emphasis on those factors most related to sibling interactions, as outlined in Table 12.1.

Step 1: Initial Contact

The first step in the assessment process is to gather information from questionnaires and checklists completed by the parents. A general questionnaire, such as our General Parent Questionnaire (see Appendix B), gives information on the age and sex of each child in the family, who cares for the children, and parents' perceptions of the problem. The Parenting Stress Index, Fourth Edition (PSI-4; Abidin, 2012) can be completed for children under age 12, and the Stress Index for Parents of Adolescents (SIPA; Sheras, Abidin, & Konold, 1998; see Appendix A), for older children. The PSI-4 and SIPA include parents' perceptions of the child's temperament and information about the marital/couple relationship, parental depression, and life stress, all of which have been shown to influence sibling relationships. Both parents should be asked to complete the PSI-4, and it is also useful to have parents complete the Child domain with reference to each child about whom the parents are concerned. Hypotheses about differential parental perceptions and treatment of the children can be developed from this information. The Child Behavior Checklist (CBCL; Achenbach, 2013; Achenbach & Rescorla, 2001a, 2001b) or the Behavior Assessment System for Children, Third Edition (BASC-3; Reynolds & Kamphaus, 2015), should be completed with reference to each child involved in the conflict. These screening instruments point out the existence of other problems with any of the children.

Parents should be asked to monitor and note all instances of sibling conflict on the Daily Log (see Appendix B) for a minimum of 3 days. This gives the clinician information about the frequency and duration of fights (e.g., are they more frequent than expected?), as well as the instances that involve physical and/or verbal aggression. It also provides information on parents' perceptions of who is at fault, how fights are resolved, how often parents intervene, and so on. These data provide a baseline for monitoring the effectiveness of any treatment program.

In order to address other family factors that may affect sibling conflict, measures may be administered to assess the marital relationship and parental psychopathology (see Appendix A). The Dyadic Adjustment Scale (DAS; Spanier, 1976) assesses marital/couple distress, which has been shown to affect sibling relationships, both directly and indirectly. The existence of serious problems in the parents' relationship should lead the clinician to address this issue either before or concurrently with work on the sibling conflict. The Beck Depression Inventory–II (BDI-II; Beck, Steer, & Brown, 1996) is particularly important to administer to parents (especially mothers) who are concerned about the adjustment of their older child to a new baby. Postpartum depression is quite common and may need to be treated before a mother can deal effectively with her older child's adjustment problems. Information on parental depression may also be obtained from the PSI-4.

Step 2: Initial Intake Interview

Parent Interview

Interviewing the parents is crucial in the assessment of sibling conflict. During the interview, in following the CAIS framework, the clinician should be particularly careful to gather the following information:

1. *In what type of conflicts do the siblings engage, what are consistent topics, and how severe does it get?* Do the siblings engage in conflicts around specific issues and are they able to discuss them appropriately and come to a resolution, or are the conflicts more destructive and tend to escalate where there is no resolution or a clear winner? Are there usual themes in the conflicts (e.g., taking someone else's things, negotiating use of shared space such as a bedroom or television)? Although many people feel that sibling conflict is typical and even DSM-5 rules out using sibling interactions for a diagnosis of oppositional defiant disorder (ODD; APA, 2013), the severity of the interaction should be assessed: How often do they fight, how long does it last, is verbal and/or physical aggression used and how often, and what are the worst things that have happened during a conflict?

2. *How do parents handle sibling conflict currently, and what methods have been tried in the past?* Reviewing the data on the Daily Log with parents can help to clarify this question. Having parents go over a "typical day" will reveal any particularly troublesome situations (e.g., fighting over TV, the predinner "combat hour").

3. *How did the sibling relationship develop?* Parents should be asked to describe how the older child or children were prepared for the arrival of the new baby and what the adjustment period was like. Any steps parents took to ease an older child's adjustment should also be noted.

4. *What kinds of behavior do the parents model for their children?* Because parents are important models for their children, the parents' style of interaction with each other should also be observed during the interview. We have been amazed at the number of parents who are quite comfortable with a combative, argumentative interaction style in the marital/couple relationship, yet at the same time complain that their children exhibit the very same style! Conveying information about the effects of parental modeling on children's behavior to parents is an important part of conceptualizing and treating these cases.

5. *Do the children have problems with aggression/conflict in areas other than sibling interactions?* Parents should be asked about the children's peer relationships, school

progress, and other activities and interests. Data from the CBCL or BASC-3 can provide the basis for gathering further information in these areas. Children who are having problems in other areas are of greater concern than those whose problems occur only in the context of sibling interactions.

Child Interview

Interviewing children in cases involving sibling conflict is often not necessary. When done, it is best left until after the clinician has observed the children's behavior. Children are usually able to describe the problem in more global terms (e.g., "I hate him; he's always bugging me"). Observation enables the clinician to ask more specific questions regarding sibling interactions.

Step 3: Observation of Behavior

Observation of the children together, both in the presence of parents and alone, is the next step in the assessment process. Although observation in the home would be most useful, clinic analogs can be used to get an idea of sibling and parent interactions. Nakaha, Grimes, Nadler, and Roberts (2015) developed the Sibling Play Analog (SPA) to observe sibling interactions. In the clinic room, age-appropriate toys are set up (e.g., beach ball, building blocks) and games (e.g., Connect Four, UNO) to solicit solitary or cooperative play and possible conflicts regarding activities. Parents stay in the room but are prompted to tell the children to play by themselves, so the parent can complete some adult work. In a 20-minute observation, the clinician can code the presence or absence of the following behaviors: (1) verbal harassment: negative talk, evaluations or expressions; (2) angry yelling: anger reactions that can include crying, directed at the sibling; (3) physical antagonism: grabbing hitting, fighting; (4) justification: an explanation or reasoning why the child did or did not do something; and (5) cooperative play: a sequence of actions of the siblings working together (Nakaha et al., 2015). This can help the clinician gather a baseline for behavior that may be used throughout treatment to gauge progress. In addition, the clinician can ask the siblings to role-play different situations (e.g., deciding which game to play, deciding what show to watch, eating dinner together) to assess some of their abilities to engage in social and conflict resolution skills. Parents may report that a clinician does not actually witness instances of fighting during observations, because the children are on "their good behavior" in the presence of a stranger. Although this is often the case, children also tend to get more comfortable across appointments and more behaviors are observed. Alternatively, the family might videotape interactions at home (positive and negative) and bring them to show the clinician. Observing parents interacting with the children can provide information about management strategies, as well as reinforcement patterns. A modified version of the observation in Chapter 10, incorporating interactions with siblings, can be used to collect information on how the family members interact together and how parents respond to sibling difficulties.

Step 4: Further Assessment

For many cases of sibling conflict, Steps 1, 2, and 3 complete the assessment. The clinician should be aware of the possibility of more serious problems among the children, parents, and/or family that would require further psychological assessment.

Step 5: Collaboration with Other Health Care Professionals

Referral to another professional should be considered for problems such as marital conflict or parental depression, which may coexist with sibling conflict, and the need to treat these problems prior to treating the sibling problems should be assessed.

Step 6: Communication of Findings and Treatment Recommendations

Prior to beginning treatment, the clinician should discuss his or her understanding of the nature and etiology of the sibling conflict and provide a rationale for the proposed treatment program. The implications of sibling problems for the children's development in other areas and their impact on family life should also be discussed. As it does for any child problem, the parents' understanding of the clinician's view of the sibling problems will influence their motivation to cooperate with the treatment recommendations.

TREATMENT OF SIBLING DIFFICULTIES

Research Findings

Although, historically, sibling treatment studies have been sparse, research on interventions with siblings has increased in the last several years (Dirks et al., 2015; Kramer, 2004). Overall, interventions have focused mostly on providing guidance to parents on handling sibling issues (e.g., giving developmental information and suggestions on how to handle the situation) or using parent training in behavioral principles. Parental guidance approaches can be helpful for parents, particularly around topics such as helping a sibling adjust to a new baby in the family. Although the suggestions are usually based on theoretical frameworks, there isn't much empirical literature on particular approaches (Kramer, 2004; Kramer & Ramsburg, 2002). Parent training approaches, such as reinforcing appropriate behavior and providing consequences for inappropriate behavior, have been shown to be effective in reducing sibling conflict (Dirks et al., 2015; Kramer, 2004). In addition, interventions specifically designed to help parents mediate sibling conflict have been shown to increase sibling conflict resolution strategies and improve perspective-taking skills (Siddiqui & Ross, 2004; Smith & Ross, 2007). There are also more programs directed at improving sibling conflict skills that have shown effectiveness in increasing positive interactions between siblings (Kramer, 2004; Feinberg et al., 2013).

Evidence-based programs with a family focus that target child problem behaviors may be modified to incorporate sibling conflict as an aspect of the intervention. For example, Triple P (the positive parenting program) has been tailored to address sibling conflict in order to improve family functioning (Pickering & Sanders, 2016). In addition, treatments focused on one target child can result in significant improvements in the behavior of other siblings (Dopp, Borduin, Wagner, & Sawyer, 2014; Wagner, Borduin, Sawyer, & Dopp, 2014). *Multisystemic therapy,* a comprehensive treatment that focuses on individual, family, and community factors related to delinquent behavior, has produced reductions in juvenile offending for not only the identified client but also siblings that last into adulthood (Dopp et al., 2014).

We employ a variety of behaviorally based treatment strategies for sibling conflict, the choice of which depends on our assessment of the problem. First, intervention/prevention strategies are discussed with the birth of a new sibling. Then, various strategies for treatment of sibling conflict are discussed in the context of the CAIS framework.

Intervention/Prevention Strategies with the Birth of a New Sibling

Helping young children adjust to the arrival of a new brother or sister is best viewed as preventive work, because the quality of the relationship between siblings shows some consistency over time, and children who make a good adjustment in the early months may have less trouble with sibling conflict later on. Furthermore, there are several things parents can do before and after a new baby is born to help prepare an older child and facilitate positive adjustment. Strategies for helping a child cope with a new sibling must be extrapolated from the research literature, because few studies have tested the efficacy of one approach over another. Kramer and Ramsburg (2002) reviewed popular press advice and compared it to research evidence. They stated overall that although the advice appeared to be reasonable, there was a lack of empirical support in most areas.

Parents should prepare the older child for the birth of a sibling well in advance of the expected date. How far ahead of time depends on the age of the child. Toddlers (ages 12–18 months), who have little sense of time (past or future), may need only a few days' or a week's notice. Preschoolers (ages 2–5 years), although still tied to present experience, are very curious about their environment and are likely to have noticed changes in their mothers and have asked many questions. These in turn are likely to lead to questions (e.g., "Where do babies come from?"). These questions give parents the opportunity to begin to prepare the child for the new baby. Simple, concrete, but honest factual information is appropriate even for very young children, and parents should provide this information, with the assistance of books written for young children, even if their child has not asked any questions. For preschoolers especially, preparation is an ongoing process that should occur over many weeks in small doses.

Recognizing that the birth of a new sibling is a major event for a child should alert parents to minimize other sources of stress in the child's life, so that his or her coping skills are not overwhelmed. We recommend maintaining a child's schedule and routine as much as possible during the time just before and after the birth. Changes such as sleeping in a bed versus the crib, moving to a new room or a new house, or starting a new preschool should be accomplished well in advance of the birth date, so that the older child has a chance to become used to the new routines. The child should be left with someone familiar and in a familiar place while the mother is in the hospital, and should be told ahead of time who will care for him or her. There is also empirical support for the value of the older child visiting the mother and new baby in the hospital (Kramer & Ramsburg, 2002).

After the new baby comes home, extensive involvement of the father, grandparents, or other adults in the care of the older child can facilitate the child's adjustment (Kojima, Irisawa, & Wakita, 2005; Mendelson, Gottlieb, & Paratta, 1995). It is also essential that parents schedule time for the older child, during which they give the child their undivided attention. Even 10 or 15 minutes a day goes a long way toward fostering adjustment. Special treats or events that emphasize the older child's capabilities (in contrast to the infant's relative lack of abilities) can help to eliminate "regressive"/imitative behaviors. For example, going out to eat with the mother and father while the baby is left with a sitter provides an opportunity to reinforce grown-up behavior. In addition, parents should provide clear consequences for aggressive behavior, whether it is directed at a parent, the infant, or both. Procedures for positive attending and time out are described in the treatment section of Chapter 10. Aggression expressed in fantasy play does not usually translate into aggression toward the sibling and may help the child process feelings about the new sibling. Therefore, parents should be advised to allow appropriate expression of angry feelings (e.g., let the child draw a picture of his or her angry feelings).

Parents can also foster the older child's positive adjustment by involving him or her in the care of the infant, by making this care a shared experience rather than a responsibility, and by modeling respect for the infant as a person with needs and feelings (Kramer & Ramsburg, 2002). Even a very young child can be involved in the care of a new infant by fetching diapers, holding the bottle, checking on the baby, and so on. Parents can also describe the interaction of the baby and older child in a way that emphasizes the "individuality" of the infant, as well as the infant's responsiveness to the older child. At the same time, appropriate behavior on the part of the older child can be reinforced (e.g., "The baby is watching you and likes the way you are holding her so gently," or "Look, the baby is smiling at you. He likes the way you are holding his bottle"). Overall, these strategies can help set the stage for the developing sibling relationship.

Treatment Strategies

Intervention with the Child

In many cases it is clear that children do not have adequate conflict resolution skills, and this can be the focus of intervention. These skills include ignoring, negotiating, compromising, expressing angry feelings appropriately, and (when all else fails) walking away from the situation. The More Fun with Sisters and Brothers (MFWSB) program is devised for 4- to 6-year-old children to interact more appropriately with their infant or toddler siblings, and targets particular social and conflict resolution skills to improve sibling conflict (Kramer, 2004; Ravindran, Engle, McElwain, & Kramer, 2015). These target skills include (1) how to initiate play with a younger sibling; (2) ways to accept a younger sibling's invitation to play; (3) ways to appropriately decline a younger sibling's invitation; (4) ways to see things from the sibling's perspective; (5) strategies to handle angry feelings; and (6) ways to manage conflict (Kramer, 2004). The skills are taught, modeled by clinicians, and role-played by the child; then the child practices them with his or her siblings, accompanied by coaching, rewards for appropriate behavior, and ways for parents to reinforce the skills at home. The Siblings Are Special (SIBS) is for fifth-grade children with younger siblings in second through fourth grades (Feinberg et al., 2013). The program works on increasing child social–emotional skills, such as understanding emotions, problem solving, and perspective taking, and specifically applies these to sibling interactions in order to improve warmth and joint decision making, and decrease sibling conflicts and deviancy training. Parents are also taught mediation strategies to use in sibling conflicts.

Randomized controlled trials of the MFWSB and SAS have shown effectiveness in increasing positive interactions between siblings (Kramer, 2004; Feinberg et al., 2013). However, the interventions did not significantly affect negative behaviors, suggesting that an intervention that combines building child skills and parent training may be most effective (Dirks et al., 2015).

Intervention with the Parents

Many children referred for sibling conflict already have good interaction skills in their behavioral repertoires. The treatment issue then involves increasing the use of these skills or, conversely, decreasing use of inappropriate behaviors with siblings. This is most effectively accomplished through use of behavioral techniques. This begins with the parents being clear with their children about their expectations for behavior and household rules. Telling a child, for example, to "play nicely with your brother" is not specific enough. In addition, parents should be mindful of differential treatment of their children. They should find ways to meet each child's unique needs for time, attention, and family resources. Older children, for example, may be entitled to privileges (later bedtimes, larger allowances, etc.) that are not appropriate for younger children.

Providing rewards for appropriate behavior or the absence of negative behavior is also important. Sharing some special time with each child can be very useful but sometimes parents may have a hard time finding time for just one child without others being around. Therefore, "family special time" can be a way for parents to have more than one child in the room but be able to share attention across all for the activities they are doing. Also, children can be given a certain number of points (or a sticker, for younger children) for playing cooperatively for a certain amount of time (e.g., 10 minutes). Using consequences such as time out for physical or verbal aggression, regardless of who did what to whom, is always appropriate and effective. Response cost methods, in which a child loses points (or stickers) for fighting, have been shown to be more effective than positive reinforcement alone. See Chapter 10 for more details about these strategies. When applying these strategies to sibling conflict, group rewards and punishments can be very effective. For example, if children persist in fighting, all can be sent to time out or the TV can be unplugged until they can decide which programs to watch. Conversely, all children can be rewarded for playing together cooperatively for a specified period of time. If fighting occurs, no matter who starts it, no one gets the reward. Whatever method is adopted to handle fighting, everyone who cares for the children (babysitters, grandparents, etc.) should be familiar with the procedures and asked to use them consistently.

Teaching parents specific conflict mediation skills can also help facilitate siblings' learning negotiation skills (Siddiqui & Ross, 2004; Smith & Ross, 2007). Although parent nonintervention may be appropriate at times, the idea that children will learn conflict skills on their own has not been supported; in fact, less than 12% of sibling conflicts end with compromise or reconciliation (Howe, Rinaldi, Jennings, & Petrakos, 2002)! Mediation is similar to problem solving and can work in four stages: (1) Ground rules are introduced to limit negative strategies; (2) conflict issues are identified and clarified from each perspective; (3) empathy and mutual understanding are highlighted to find a common resolution; and (4) resolutions are proposed, assessed, and adopted by the sibling pair (Smith & Ross, 2007). The difficult part of mediation for parents is helping children come to a resolution by themselves, because parents are more likely to provide direct solutions to the issues that are not always constructive (Kramer, Perozynski, & Chung, 1999; Smith & Ross, 2007). Parent mediation has shown to lessen sibling conflict and increase children's use of social–emotional skills, including perspective taking (Siddiqui & Ross, 2004; Smith & Ross, 2007).

Intervention in the Environment

Changing some aspects of the environment may decrease sibling conflicts. In many cases, simple interventions such as rearranging the family's schedule (e.g., having dinner an hour earlier) or taking away a particular toy can decrease fighting. Children are entitled to some privacy and should have a few personal possessions that they are not expected to share. If children have separate rooms, other children in the family can be prohibited from entering without permission. If children must share a room, then providing each with his or her own area to store "nonsharable" possessions can help.

In some cases, sibling conflict is exacerbated by the degree of stress the family is experiencing. Preschool children are particularly adept at engaging in their worst behavior when parents are least able to manage it. One aspect of treatment for these families might be to help them find better ways to cope with stress and at the same time keep the children under control. For example, if the marital/couple relationship is distressed or either parent is experiencing significant psychological problems, treatment should focus on these problems before (or at least concurrently with) treatment of the sibling problem.

Intervention in Medical/Health Aspects

Intervention in medical/health aspects is most appropriate for parents who are concerned about the adjustment of the sibling of a disabled or chronically ill child. Although meeting the needs of a chronically ill or disabled child is inevitably difficult and time-consuming, parents should find ways to meet the needs of all their children. Many of the suggestions provided earlier are equally relevant for parents with both disabled and nondisabled children. In addition, including siblings in psychoeducation of their sibling's disability/illness, increasing their coping strategies around factors related to the illness, providing consistency and stability in the family as much as possible (e.g., regular times for dinner), and providing social support from parents and/or peers has been shown to increase sibling adjustment (Incledon et al., 2015).

CASE EXAMPLE: PHYSICAL CONFLICT AMONG SIBLINGS

Step 1: Initial Contact

Mrs. Battle, the mother of three boys (ages 6, 8, and 10) and a girl (age 3), sounded desperate when she called for an appointment to discuss sibling rivalry. Her two oldest children had recently caused physical harm to each other, with one sustaining a broken foot. Questionnaires (the General Parent Questionnaire, the Eyberg Child Behavior Inventory (ECBI), the CBCL, and the PSI-4) were sent out for all four children, and both parents were asked to complete these for each child.

Mr. Battle's ratings of all the children on the behavioral measures were well within normal limits. He did, however, note that the 6-year-old was more hyperactive, more impulsive, and less attentive, and had some difficulty understanding directions. Mrs. Battle's ratings, conversely, indicated major conduct problems for all of the children except the 3-year-old girl.

Both parents' PSI-4 ratings for the 6-year-old indicated a child with a difficult temperament who nevertheless was quite acceptable and reinforcing to each parent. The other children's scores were within normal limits, and Mrs. Battle noted that in viewing each child independently, she found them quite acceptable and reinforcing. Mrs. Battle's responses on the Parent domain of the PSI-4 indicated scores on the Depression, Relationship with Spouse, and Parent Health scales all above the 90th percentile (high scores on the PSI-4 are problematic.) Mr. Battle's scores on the Parent domain were all below the 40th percentile.

The General Parent Questionnaire indicated that Mr. Battle was a university professor, who was often involved in evening meetings, worked on Saturdays, and therefore had only limited child care responsibilities. Mrs. Battle, a homemaker, found little time for personal activities other than church. Her days and nights were totally devoted to the care of the children. According to Mrs. Battle, school and preschool reports indicated that the children were well behaved, compliant, and socially appropriate. The 6-year-old's teacher did, however, indicate some problems with attention and following directions. The older children (the three boys) were involved in a number of community activities, including organized sports and the church children's choir, and each had his own special friends. The youngest child, the 3-year-old girl, was described as beloved by everyone in the family and never involved in the sibling squabbles.

Step 2: Initial Intake Interview

Mrs. Battle appeared as a pleasant woman in her early 30s, who was dressed in sweat pants and running shoes. Her husband did not come for the interview because he did not feel the children's problems were significant, and he attributed the latest "accident" to overly rambunctious behavior. Although Mr. Battle did not approve of such behavior, he did not see it as abnormal. Mrs. Battle, on the other hand, clearly felt responsible for her children's behavior. Mrs. Battle said that her husband was quite supportive of her seeking help and learning more effective management techniques.

Mrs. Battle described the three boys as being intensely loyal to each other (e.g., they fiercely stood up for each other when in group settings with other children, and often dubbed themselves "the Battle boys"). They were also described as being able to play with each other for several hours without any major upset, especially if only two of the three older children were present. School vacations, however, were described as nightmares, with the mother constantly organizing activities, refereeing squabbles, and praying for the end of each day. Mrs. Battle's management of the sibling rivalry included reasoning with the children, acting as judge, separating the children, screaming at them, and trying to provide separate activities for them outside the home. None of these methods was used consistently; they varied with Mrs. Battle's mood, the time of day, and the situation. Fighting was particularly bad in the late afternoon, and she had started to feed the children earlier and earlier in the day. At the time of this appointment, the children were fed and put to bed no later than 6:30 P.M.! Consequently, her day usually began at about 5:00 A.M. She felt, however, that after a night away from the children, she was better able to deal with them.

The home environment was described as quite pleasant, with a bedroom for each child, a large family room, and a large outside play area with swings and room to run around and play baseball. The family's socializing was limited primarily to activities involving the children, and there was little time or energy left for the parents to be alone. Mrs. Battle said she loved her husband (who was a childhood sweetheart) very much and felt that he also loved her, but the lack of support from him with regard to the children was causing considerable stress on the marriage. She excused her husband's lack of involvement because of his many university and community responsibilities, which were seen as ultimately benefiting the family.

Mrs. Battle indicated close connections with and support from both the maternal and paternal sides of the family, but the recent illness and subsequent death of her mother were causing her great distress. She described a very close relationship with her mother and was sorely missing her support. Mrs. Battle's significantly high score on the PSI-4 Parent Health scale related to difficulties with sleep, headaches, and major problems with ulcers. The sleep problems had started after her mother's death. Although sibling squabbles were the norm in this family, they had become significantly worse in the last year and a half, which coincided with the period of her mother's illness and death.

No child interview was conducted in this case given that the mother provided sufficient information regarding the conflict to plan a treatment program.

Step 3: Observation of Behavior

A home visit began 30 minutes before dinner and lasted through the dinner hour. The children were told that the clinician was helping their mother figure out ways to have their family run more smoothly and happily. This observation revealed a well-organized environment with ample materials to stimulate development. Soon after the clinician's arrival, a typical pattern of interaction surfaced, with squabbles over who got the most milk, whose story was read first the previous night, and roughhousing that quickly ended with tears. Mrs. Battle used no consistent management techniques, nor did the children respond to any but her most vociferous efforts.

Step 4: Further Assessment

After further discussion about the 6-year-old's behavior, it was agreed that questionnaires should be sent to the school, and the therapist was given permission to talk directly with his teacher. Through subsequent evaluation, it was determined that this child had a mild learning disability and attention-deficit/hyperactivity disorder (ADHD). His behavior was felt to have an impact on the two older children's behavior, and vice versa. These problems were treated simultaneously with the sibling rivalry problems.

Step 5: Collaboration with Other Health Care Professionals

Referral to other professionals was not necessary in this case.

Step 6: Communication of Findings and Treatment Recommendations

This family had many strengths, including financial security, a pleasant and adequate home for the children, a supportive and caring extended family, and children who were functioning well with peers and in school. The 6-year-old's difficult temperament, mild learning disability, and ADHD negatively influenced his and the other children's relationships with each other. The stressful life events of the maternal grandmother's death and the mother's health problems, plus the life circumstances of the father's work schedule and the mother's responsibility for the four rambunctious children, had set the stage for maternal depression, marital conflict, child management problems, and sibling rivalry. In the process of filling out questionnaires, keeping Daily Logs, and talking to the clinician, Mrs. Battle became aware of the negative factors influencing the family. Assessment of the 6-year-old's problems also helped both parents understand and arrange to meet this child's needs.

When the clinician discussed sibling rivalry in a developmental context, with an analysis of what factors were most likely promoting negative interactions in their home, the parents readily agreed to the recommended treatment. It was interesting that although they saw their 6-year-old son's ADHD and other problems as adding to the conflict, they did not feel that this was a major component of the overall problem. They indicated that they had always tried to meet his special needs; they just had not realized that there were other ways to help him. They understood and accepted that some of the recommended treatment strategies were geared toward indirectly decreasing the sibling conflict.

Course of Treatment

Based on this assessment of the problem, treatment was implemented in several areas. The clinician discussed with Mrs. Battle ways to help the children learn problem-solving skills. These skills were explained to her and role-modeled with her, and she was instructed to prompt these skills when the children started to have difficulties in their interactions. In addition, Mrs. Battle was referred for individual therapy to work through her grief over her mother's death. She also joined the women's group at her church, which involved one night out per week by herself. Mr. and Mrs. Battle agreed to participate in one social activity per week without the children. Finally, Mrs. Battle attended evening parent groups focused on sibling conflict. These groups alerted her to the fact that other families were dealing with similar problems and that her children were not terribly abnormal. She also learned general information about sibling conflict and how other parents handled it.

The clinician worked with Mrs. Battle to reorganize the family's schedule. The children's bedtime was moved to 8:00 P.M., and Mr. Battle agreed to come home at 6:00 P.M. every night to eat dinner and help put the children to bed. Mrs. Battle hired a babysitter to come every other week to stay with the children for a few hours while she ran errands. Also, the boys' possessions were divided into those that were private and those that were to be shared. Possessions left out of their respective rooms were automatically shared.

Because Mrs. Battle was afraid the boys would really hurt each other if she ignored their fighting, she was instructed to use one response for every squabble. This was time out by isolation for each child involved, regardless of who did what to whom (see Chapter 10 for time-out procedures). Negative comments, procrastination in going to time out, and so on, were dealt with by requiring additional time in isolation for that child. A chart system was also implemented for the family, wherein the boys had to work together to earn a reward (see Figure 12.1). Points were given for cooperation between the children and accumulated over the week, at which point they were exchanged for a reward. Fighting resulted in automatic loss of points, as well as time out.

Sibling Chart (Example)

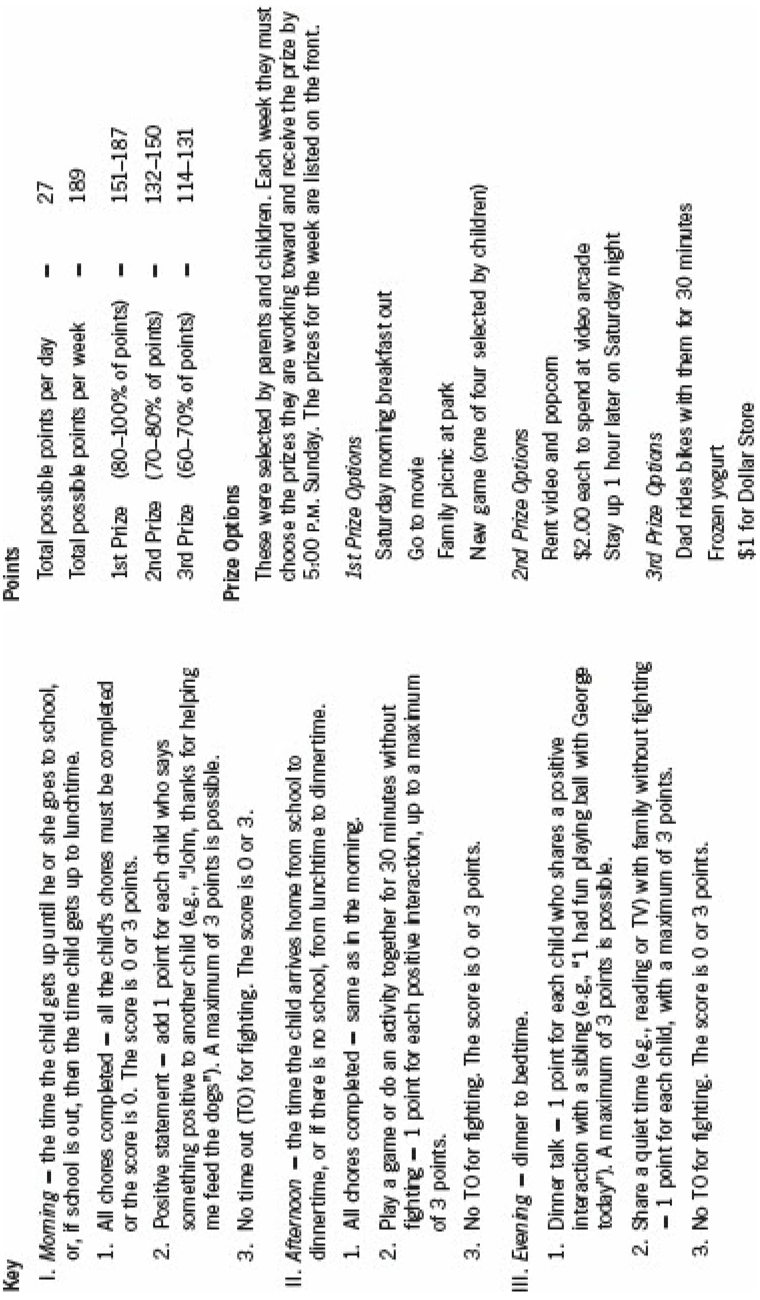
Child's Name: ____________ Age: ______ Monday's Date: ________

Behavior	Total Possible Points	Saturday	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday
Morning								
1. All chores completed	0 or 3							
2. Positive statement	1–3							
3. No TO for fighting	0 or 3							
Afternoon								
1. All chores completed	0 or 3							
2. Positive 30-minute activity	1–3							
3. No TOs for fighting	0 or 3							
Evening								
1. Positive dinner talk	1–3							
2. Share family quiet time	1–3							
3. No TOs for fighting	1–3							
Total	Daily—27 Weekly—189							

1st prize (151–187 points) – ____________

2nd prize (132–150 points) – ____________

3rd prize (114–131 points) – ____________



Key

I. *Morning* – the time the child gets up until he or she goes to school, or, if school is out, then the time child gets up to lunchtime.

1. All chores completed – all the child's chores must be completed or the score is 0. The score is 0 or 3 points.
2. Positive statement – add 1 point for each child who says something positive to another child (e.g., "John, thanks for helping me feed the dogs"). A maximum of 3 points is possible.
3. No time out (TO) for fighting. The score is 0 or 3.

II. *Afternoon* – the time the child arrives home from school to dinnertime, or if there is no school, from lunchtime to dinnertime.

1. All chores completed – same as in the morning.
2. Play a game or do an activity together for 30 minutes without fighting – 1 point for each positive interaction, up to a maximum of 3 points.
3. No TO for fighting. The score is 0 or 3 points.

III. *Evening* – dinner to bedtime.

1. Dinner talk – 1 point for each child who shares a positive interaction with a sibling (e.g., "I had fun playing ball with George today"). A maximum of 3 points is possible.
2. Share a quiet time (e.g., reading or TV) with family without fighting – 1 point for each child, with a maximum of 3 points.
3. No TO for fighting. The score is 0 or 3 points.

Points

Total possible points per day – 27
Total possible points per week – 189
1st Prize (80–100% of points) – 151–187
2nd Prize (70–80% of points) – 132–150
3rd Prize (60–70% of points) – 114–131

Prize Options

These were selected by parents and children. Each week they must choose the prizes they are working toward and receive the prize by 5:00 P.M. Sunday. The prizes for the week are listed on the front.

1st Prize Options
Saturday morning breakfast out
Go to movie
Family picnic at park
New game (one of four selected by children)

2nd Prize Options
Rent video and popcorn
$2.00 each to spend at video arcade
Stay up 1 hour later on Saturday night

3rd Prize Options
Dad rides bikes with them for 30 minutes
Frozen yogurt
$1 for Dollar Store

FIGURE 12.1. Sibling Chart (Example).

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Mrs. Battle was supported in carrying out this program over the next month by one face-to-face interview and weekly telephone contacts. The children initially increased their negative interactions, but Mrs. Battle, with the help of her husband, was able to be consistent in her expectations for their behavior and in providing consequences for their appropriate and inappropriate behaviors. Within a 2-week period, Mrs. Battle reported that the household had calmed down considerably. She realized that in order for things to run smoothly, she would have to continue providing a high degree of structure and consistency in her interactions with the children.

PEER DIFFICULTIES

The Quality of Peer Relationships

Peer relationships are important for the social development of children. Initially, children engage in *parallel play* (i.e., playing beside each other), but between ages 3 and 5 years, they become more collaborative and start developing the ability to problem-solve tasks together (Warneken, Steinwender, Hamann, & Tomasello, 2014). The amount of conflict between children remains consistent through this time period, but younger children tend to fight more about tangible objects (e.g., “My ball!”), whereas older children are more focused on play ideas, social rules, and ways the other child might be hurting their feelings (Chen, Fein, Killen, & Tam, 2001). Early peer difficulties are associated with the use of negative strategies, such as verbal aggression (e.g., yelling, name-calling) and physical aggression (hitting, biting, grabbing). As children age, they are able to use more child-generated resolutions and are less insistent about certain outcomes (e.g., “We should do it my way!”) (Szewczyk-Sokolowski, Bost, & Wainwright, 2005).

As children enter school, they become more interested in reciprocal play with peers and begin to develop skills in negotiating conflicts. Children with better developed social-cognitive skills are more likely to have successful positive and negative interactions with peers (Leadbeater, Ohan, & Hoglund, 2006). Children’s behavior with peers sets the groundwork for their *social (sociometric) status*, or their acceptance–rejection by the larger group of peers. Sociometric status is usually assessed in research by asking all children within a group (e.g., school, class) to list the children they like the most (like) and those they like the least (dislike) (Cillessen, 2009; Coie, Dodge, & Coppotelli, 1982). These results can then be used as continuous variables (e.g., acceptance or rejection) or as categories to describe a child’s status within the peer group (e.g., popular, rejected). Five original sociometric categories were identified (Coie et al., 1982): *popular* (many likes, few dislikes), *rejected* (few likes, many dislikes), *neglected* (few likes, few dislikes), *controversial* (many likes, many dislikes), and *average* (average likes, average dislikes). Generally, in a classroom, more children are rated as average (55%) than popular or rejected (15%), controversial (10%), or neglected (5%) (Cillessen, 2009).

Once established, peer acceptance and rejection are relatively stable (particularly for older children), and it can be very difficult to alter these peer perceptions (Jiang & Cillessen, 2005). The five sociometric categories are still used today, but a few subcategories have been specified including rejected children who are primarily aggressive, nonaggressive, or withdrawn, and popular children who are primarily prosocial or aggressive (Kingery, Erdley, Marshall, Whitaker, & Reuter, 2010; Robertson et al., 2010; Rodkin & Roisman, 2010). Whereas children who are popular generally show more prosocial skills, less aggression, and have more positive outcomes, rejected children have difficulties controlling their tempers, are more aggressive, and are at risk for future difficulties (Bierman, Kalvin, & Heinrichs, 2015; Chen, Drabick, & Burgers, 2015; Lopez & DuBois, 2005). Social status is also related to friendships, because the skills that lead to positive status with a peer group also give children opportunities to have more friends and form higher quality friendships (Gest, Graham-Bermann, & Hartup, 2001; Lansford et al., 2006).

Dyadic friendships are unique among peer relationships in that children have a mutual interest in spending time together and experience reciprocity, support, and validation of each other (Bagwell, 2004; see Chapter 1). Having these closer friendships helps children improve their social skills through increased interactions and negotiation, and may buffer the negative effects of other relationships. Although approximately 39% of children rejected by peers may also have at least one friend, these relationships may differ from those of popular children, in that friends of rejected children are more likely to be younger, verbally or physically aggressive, and also rejected (Gest et al., 2001; Lansford et al., 2006). In addition, Lansford et al. found that although rejected girls did not differ from average or popular girls on ratings of friendship quality, there were more negative behavioral interactions and bossiness between rejected girls and their friends and less use of appropriate conflict resolution skills. These negative behaviors may affect the quality of the friendship and lead to less stable friendships and/or more deviant peer networks over time (Bagwell, 2004).

Over the past decade, there has been a significant increase in focus on peer difficulties associated with peer bullying and victimization (Hymel & Swearer, 2015). Bullying and victimization are different than peer rejection but are highly related (Cook, Williams, Guerra, Kim, & Sadek, 2010; Lopez & DuBois, 2005). Olweus (1978) first defined *bullying,* and it is generally considered a form of aggression that is repetitive, coercive, and intentional toward a particular victim who has less power than the bully (Hymel & Swearer, 2015). Approximately 5–13% of children are identified as bullies, and 10–16% as victims (Ball et al., 2008; Fekkes, Pijpers, & Verloove-Vanhorick, 2005; Haltigan & Vaillancourt, 2014). The main types of victimization are *overt or physical victimization* (e.g., pushing, kicking), *verbal victimization* (e.g., yelling, name-calling), and *relational victimization* (e.g., spreading rumors, excluding someone from the group) (Bradshaw, Waasdorp, & Johnson, 2015; Crick & Grotpeter, 1996). Fekkes et al. (2005) found different rates of victimization in a sample of 2,853 students in an elementary school: name-calling (30.9%); rumor spreading (24.8%); being ignored or left out of activities (17.2%); and being pushed, hit, or kicked (14.7%). In addition, a new form of bullying has emerged in the past several years, cyberbullying or electronic aggression (e.g., e-mails, blogs, text messages), with a prevalence rate between 10 and 40% of children experiencing this type of bullying (Aboujaoude, Savage, Starcevic, & Salame, 2015; Kowalski, Giumetti, Schroeder, & Lattanner, 2014). Although cyberbullying is similar to other forms of bullying, it is unique in that bullies feel more anonymous, have increased access to bullying behaviors (e.g., can write a blog at 1:00 A.M.) with a wider cyberaudience, and they often do not see the direct impact of their bullying, which may decrease their empathy toward the victim (Kowalski et al., 2014). Those children who experience several types of bullying (e.g., physical, relational, and cyberbullying) have the highest likelihood of developing social–emotional difficulties (Bradshaw et al., 2015). Bullying may begin as early as preschool, is at its highest in middle school, and lessens by the end of high school (Andrews, Hanish, Fabes, & Martin, 2014; Hymel & Swearer, 2015).

It has been difficult to distinguish between bullying behavior and other forms of aggression, and bullies share similar risk factors and outcomes as aggressive children (Rodkin, Espelage, & Hanish, 2015; see Chapter 10). However, subtypes of bullies that have been identified take into account their sociometric status in the peer group. Bullies who are *socially integrated* in the peer group may actually have well-developed social skills, be popular with their peers, and show more proactive aggression, whereas those who are *socially marginalized* show more impulsive and reactive aggression, and may be rejected by peers (Rodkin et al., 2015). In addition, there are children who bully but are also at times victims themselves (*bully–victims*). These bully–victims have more problematic outcomes than other bullies and are similar to rejected–aggressive children (Cook et al., 2010; Rodkin et al., 2015).

Victims of bullies tend to be less well-liked and are more likely to be rejected by peers (Ravindran et al., 2015; Swearer & Hymel, 2015). In addition, certain reactions to bully encounters may make children more likely to be targeted by bullies. Victims tend to have more difficulties regulating their emotions (e.g., crying easily, whining), make impulsive decisions, and may be aggressive or submissive and withdraw from a problem situation (Bierman et al., 2015; Ravindran et al., 2015; Troop-Gordon, Rudolph, Sugimura, & Little, 2015). There also appears to be a developmental change in these behaviors, with younger victims often reacting with aggression, while older victims evidence more internalizing symptoms and withdrawal (Bierman et al., 2015). Victimization appears to be relatively stable across time, even when children transition to different schools (Cillessen & Lansu, 2015). Bystanders also play a role in the effect of bullying on victims because, on average, two to four peers are present in bullying situations and usually do not try to stop the bullying; however, when they do intervene, which is more likely to happen if they are a friend of the victim, they may lessen the negative repercussions of the interaction (Nishina & Bellmore, 2010; Swearer & Hymel, 2015). Due to the effects of repeated stress and difficulties responding to peer provocation, victims show multiple negative behavioral, academic, and social outcomes (McDougall & Vaillancourt, 2015; see Chapter 1).

As children move into adolescence, peers take on a more significant role in their social functioning. Adolescents start spending more time with peers and less time with family members. Although most adolescents are able to manage this transition and develop appropriate relationships, those who are rejected may go on to develop affiliations with deviant peers that lead to increased negative behavior and aggression. Peers can aid in *deviancy training*, encouraging the adolescent to engage in more antisocial behaviors by being models of norm-violating behavior and reinforcing negative behavior and attitudes, which is then related to further externalizing behaviors (Chen et al., 2015; Dishion, Spracklen, Andrews, & Patterson, 1996). Additionally, adolescents who have been victimized may also continue to have social and emotional difficulties that lead to internalizing problems such as anxiety or depression (Bierman et al., 2015; Troop-Gordon et al., 2015). In summary, early peer relationships may continue to affect social and emotional adjustment into adolescence, which sets the stage for adult functioning.

Factors Influencing Peer Relations

Several factors have been shown to influence the development of peer relations, including child individual factors, family factors, and environmental factors (summarized in Table 12.2). These factors may have direct effects (e.g., level of parental intervention in peer conflicts) or indirect effects (e.g., marital conflict disrupts parent–child relations, which then influence peer relations) on children.

TABLE 12.2. Factors That Influence the Quality of Peer Relationships

Source	Factor
Children	Temperament Level of social-cognitive development Gender differences
Family	Parent–child relationship Providing opportunities for peer interaction Facilitating appropriate peer interaction Marital conflict Maternal depression
Environment	Neighborhood resources Low socioeconomic status School policies regarding bullying

Difficult temperamental characteristics of children, including high intensity of emotional response, problems with transitions, callous–unemotional traits, and aggression, are strongly related to peer rejection and bullying, even in preschool (McCoy et al., 2002; Muñoz, Qualter, & Padgett, 2011; Szewczyk-Sokolowski et al., 2005). In one study of 1,116 families with twins, Ball et al. (2008) found that genetic factors accounted for 73% of the variation in victimization and 61% of the variation in bullying, which suggests that temperamental characteristics play a significant role in these behaviors. Children's level of social understanding is also related to the quality of peer relationships; children who are aggressive and bully others are more likely to have a *hostile attribution bias* (e.g., assuming that a peer has hostile intent even in ambiguous situations), and those who are victimized show an *internal locus of control*, with more negative self-evaluations and fewer assertive responses. Children who are able to empathize and take the perspective of their peers are more often accepted (Dodge, 2006; Lansford, Malone, Dodge, Pettit, & Bates, 2010; van Reemst, Fischer, & Zwirs, 2016).

Children who are different in some way are also more likely to have difficulties with peers. Physical (e.g., obesity, asthma), cognitive (e.g., development delays), and mental health difficulties (e.g., hyperactivity, depression) are related to increased peer rejection and victimization (Dempsey & Storch, 2010). These children may be seen as easy targets and become the object of bullying, especially if they have few friends (Dempsey & Storch, 2010). There are also gender differences in peer relations. Whereas boys tend to be more aggressive with peers and are also more likely to be overtly aggressive bullies, girls may engage more in relational bullying (Hymel & Swearer, 2015; Kochenderfer-Ladd & Ladd, 2010). Differences within gender peer groups may also moderate children's cognitions, emotional reactions, and coping responses; for example, boys who cry may be seen as weak to other boys while girls who punch may be seen as too aggressive to other girls (Kochenderfer-Ladd & Ladd, 2010; Rose & Rudolph, 2006). However, there are not gender differences in who is victimized, with boys and girls equally likely to be victimized (Fekkes et al., 2005; Rose & Rudolph, 2006).

The tripartite model of how families affect peer interactions suggests that parents influence peer relationships through (1) the parent–child relationship, (2) providing children opportunities to interact with other children, and (3) instructing children on ways to interact with their peers (McDowell & Parke, 2009). First, more secure and warm parent–child attachment and positive parent–child interactions are related to children developing autonomy, confidence, and positive peer interactions (McDowell, Parke, & Wang, 2003; Pallini, Baiocco, Schneider, Madigan, & Atkinson, 2014; Rah & Parke, 2008). In addition, if there is high family support, children are more likely to talk with their parents about being victimized by peers, and parents are more likely to set limits and consequences for their child who is bullying (Holt, Kantor, & Finkelhor, 2009). In contrast, more punitive or authoritarian parenting is related to problematic peer outcomes, including increased aggression (Michiels, Grietens, Onghena, &

Kuppens, 2008). Child maltreatment is also found more often in homes of children who are bullies and those who are victims (Holt et al., 2009). Parent–child conflict and low parental involvement and monitoring (e.g., not knowing where the children are, not knowing the parents of peers) can lead to children's increased association with deviant peers and antisocial behaviors (including bullying), particularly in adolescents (Holt et al., 2009; Ingoldsby et al., 2006). These experiences in the family may lead to children's beliefs about others and set the groundwork for their social-cognitive interpretations of peer interactions.

Second, parents provide initial opportunities for children to interact with peers by facilitating interaction with other peers and scheduling playdates. Parental social networks can affect the level and quality of children's early interactions in their environment; early friendships that are often formed by parents who know each other can affect the stability of peer interactions. Third, the amount and type of parental oversight and prompting (e.g., types of conflict solutions) in early peer situations can affect the quality of strategies that children use with peers (McDowell et al., 2003). As children get older, parents may not play as direct a role in child–peer interactions, but they may still consult with their children and monitor interactions (e.g., know where their children are).

Marital/parental conflict has also been shown to have an effect on the quality of children's peer relationships (Cummings & Davies, 2002; Kitzmann & Cohen, 2003; Lindsey, Caldera, & Tankersley, 2009). Often, this conflict is mediated by the parent–child relationship through negative interactions and emotional expression (Lindsey et al., 2009). In addition, children's perception of parental conflict and stress related to the conflict are associated with their own strategies for resolving conflict in peer interactions and friendships, and in turn their friendship quality (Kitzmann & Cohen, 2003). For example, Kitzmann and Cohen (2003) found that children who thought their parents did not resolve conflicts appropriately had difficulties resolving conflicts with friends and did not get as much support or validation from their friends. In contrast, McCoy, Cummings, and Davies (2009) found that constructive marital conflict (e.g., cooperation, resolving conflict) was related to children feeling more emotionally secure and using more prosocial behavior. Exposure to domestic violence is also related to increased victimization and bullying behavior with peers (Holt et al., 2009). Parental mental health can also affect the peer relationship. Maternal depression, in particular, has shown to affect children, but it appears that the effect of this depression on children is mediated through marital difficulties (Hipwell, Murray, Ducournau, & Stein, 2005).

Resources available in neighborhoods (e.g., other children living close, access to deviant peers), quality of day care and schools, and community resources (e.g., parks, YMCA) can also affect the pool of initial playmates for children (Gevers Deynoot-Schaub & Riksen-Walraven, 2006; Ingoldsby et al., 2006; Rodkin & Roisman, 2010). Low SES has been shown to be related to peer rejection, potentially because parents may be less available to facilitate appropriate interactions and the family has low resources for peer activities. School policies about peer interactions and bullying can affect the school climate and potential for adult intervention in bullying; parental involvement in school activities is also related to lower levels of victimization (Gage, Prykanowski, & Larson, 2014; Leadbeater, Sukhawathanakul, Smith, & Bowen, 2015). In addition, students are more likely to report bullying instances if there is a positive climate in the classroom, and classrooms with more students reporting bullying show lower levels of victimization (Cortes & Kochenderfer-Ladd, 2014).

ASSESSMENT OF PEER DIFFICULTIES

When parents are concerned about and seek professional help for peer difficulties, it is especially important to examine certain factors during assessment of the problem. The assessment guidelines presented here follow the Comprehensive Assessment-to-Intervention System (CAIS; see Chapter 2), with emphasis on those factors most related to peer interactions, as outlined in Table 12.2.

Step 1: Initial Contact

The first step in the assessment process is to gather information from questionnaires and checklists completed by parents. A questionnaire such as our General Parent Questionnaire (see Appendix B), provides an overview of the family situation, the parents' current concerns, and the possibility of peer difficulties. The Child Behavior Checklist (CBCL; Achenbach, 2013; Achenbach & Rescorla, 2001a, 2001b) or the Behavior Assessment System for Children, Third Edition (BASC-3; Reynolds & Kamphaus, 2015), can provide information across a range of behaviors, particularly externalizing or internalizing concerns. The Centers for Disease Control and Prevention (CDC) has published behavioral measures for bullying and victimization (Hamburger, Basile, & Vivolo, 2011). However, it should be noted that many of these measures have been developed to study a broader range of bullying for schoolwide implementation (e.g., Olweus Bullying Questionnaire; Solberg & Olweus, 2003) and should therefore be reviewed to determine whether they have norms to use with individual children (Vernberg & Biggs, 2010). We usually obtain information from parents and teachers with the CBCL or BASC-3, then interview children about areas in question and their experience of school. Other questionnaires can be administered to assess family factors (see Appendix A). The PSI-4 (Abidin, 2012) for children under age 12 and the SIPA for older children (Sheras et al., 1998), can provide a rating of stress in the household. The Revised Dyadic Adjustment Scale (RDAS; Busby, Christensen, Crane, & Larson, 1995) assesses marital/couple distress, which has been shown to affect peer relationships, both directly and indirectly. The BDI-II (Beck et al., 1996) can also be administered if there is concern about parental depression.

Step 2: Initial Intake Interview

Parent Interview

Interviewing the parents can help determine their knowledge of their child's peer relationships and peer difficulties. When parent and child reports of bullying and victimization are compared, children report higher rates than their parents (Holt, Kantor, & Finkelhor, 2008); in fact, parents are often unaware that their children are bullies or are being victimized. Although children are more likely to tell their parents than tell their teachers about bullying, many children do not tell anyone. Girls and chronic victims are more likely to tell someone and, in general, children are more likely to report if they feel support from their school and parents (Fekkes et al., 2005). The following questions can help the clinician assess for peer problems.

1. *How did early peer relationships develop, and what is the child's status within the peer group? When did peer difficulties start, and how does the child usually resolve difficulties with peers*? Asking about the child's early interactions with siblings and then peers during the preschool and early school years gives information about the child's development of social skills. It is important to determine whether the child has always had difficulties with siblings and/or peers or if the difficulties began with a transition, such as going to middle school or a change in neighborhoods. Getting information on the type of difficulties the child has had or is currently experiencing and how he or she resolved these problems helps determine the severity of the problems and treatment approaches. Asking about the child's participation in birthday parties or other "invited" social events can give an indication of the child's social status.

2. *Does the child currently have friends, and how often does he or she play with them?* Exploring the number of friends that the child has had over time, currently has, and what he or she does with them provides information about the child's interests, the opportunities he or she has to play with others (e.g., playdates, meet up at the park, sleepovers), as well as the child's involvement in structured activities (e.g., Scouts, baseball league). If the child had or has a friend(s), what have the parents observed in their interactions? For example, do they have the same interests, and how do they settle disputes (e.g., argue, give in to the other's wishes, negotiate solutions) or do parents intervene?

It is also important to know whether the child is hesitant or unwilling to engage in new activities or situations or will only participate if a friend is with him or her. If the child has no friends outside of school, it is important to determine whether there are legitimate reasons for this, such as a dangerous neighborhood, no children their age living around them, or if parents work schedule/finances limit play opportunities.

3. *Is there evidence of bully and/or victim behaviors? What happens in these situations and with whom? What have parents done or told the child to do about the situation?* Parents do not always know about bullying or victimization, so it is important to see how aware they are of a situation. If the parents suspect or have information about their child being victimized or engaging in bullying behavior, it is important to know when and how they suspected/or learned this and what they have done, if anything. If the child is being bullied, Holt et al. (2008) found that parents most often advise their child either to fight back or stay out of the way of the bully. The circumstances of this behavior and who is involved are also important pieces of information, as well as the child's response and its result.

4. *Have the school and parents been in contact? Does the school have an antibullying policy and, if so, what is it?* The issue here is to determine whether the school has an atmosphere or system that supports the reporting of bullying behavior and what school personnel do about it. Children are reluctant to report bullying, and the atmosphere at the school (e.g., supportive teachers and policies) determines how and what will be reported, as well as how the report is handled.

5. *What kinds of behaviors do the parents model for their child?* Because parents are important models for their children, the parents' style of interaction with each other and their child should be discussed. Having the parents discuss how they resolve conflicts or disagreements, or how they have handled disagreements with their child, can give information on their problem-solving styles and the child's role/part in family decisions. For example, how are television programs or movies decided or who decides which restaurant is chosen, if they are going out to eat?

6. *Does the child have problems with aggression/conflict in areas other than peer interactions?* Children who are having these problems in other areas (e.g., home or neighborhood), are of greater concern than those whose problems occur only in the context of peer interaction.

Child Interview

Interviewing children about peer interactions is a key piece of the assessment process. Since adults may not always observe difficulties, it is helpful to get the child's perspective on the domain areas parents are questioned about (e.g., peer interactions, friends, victimization) and ways they have tried to solve problems with peers. However, the child may not always be comfortable revealing this information, particularly if he or she feels that the bully may retaliate or the child may get in trouble for telling. In this case, it will be important to work with the child, the parents, and the school to help the child understand what will happen with regard to the information revealed and possible outcomes at school. In order to obtain more details, the clinician can do a functional behavioral assessment with the child to help identify the antecedents (e.g., the situations that tend to induce victimization) and consequences (e.g., what happens after the child bullies another student) specific to situations the child faces at school that may be maintaining the behavior (Grills-Taquechel, Polifroni, & Pane, 2010). For example, if the child is always picked on by an older peer during the lunch hour when he or she is eating alone and out of the sight of the teachers, and the older peer actually gets rewarded by the teachers because they think she is mentoring the child, this information helps to identify parts of the situation and motivations of the bully, as well as possibly why the child has not informed adults of the bullying. In order to assess timing of interactions, an older child who is being bullied might note behavior at school across the day and week in a diary format to report to the parents and clinician.

Step 3: Observation of Behavior

Observations of peer interactions may not be feasible, but if the clinician is able to go to the school and observe peer interactions at times in the day when difficulties arise (e.g., lunchtime, math class), a wealth of information may be obtained about patterns of interactions with peers, peer responses, and the atmosphere at the school (Grills-Taquechel et al., 2010). If the clinician is not able to go to the school, a teacher or counselor may be able to observe the child over a period of time to gain information about typical behaviors in different settings. However, since bullying and victimization often happens without adults observing, observations may not gain as much information about these covert behaviors.

Step 4: Further Assessment

For peer difficulties that occur in the school setting, it is important to get information from the child's teacher(s) and school counselor. The teacher might fill out questionnaires such as a CBCL or BASC-3, so that the clinician can get a sense of the child's behaviors in this setting. Also, an interview with the teacher about the child's academic success and social interactions will provide more in-depth information about peer difficulties. It is helpful to know whether the school has antibullying policies, a process for reporting bullies, and how these are usually addressed.

Step 5: Collaboration with Other Health Care Professionals

Referral to another professional should be considered if problems such as marital conflict or parental depression coexists with peer conflict. If parents can learn new ways to resolve conflicts and manage emotional difficulties, they can model these strategies for their child.

Step 6: Communication of Findings and Treatment Recommendations

Prior to beginning treatment, the clinician should discuss his or her understanding of the nature and etiology of the peer difficulties and provide a rationale for the proposed treatment program. The importance of the child learning appropriate ways to handle peer interactions and how this may affect future development in other social and emotional areas should be highlighted. Also, the family members should understand that they play a key role in helping with difficulties at school or in other peer interactions.

TREATMENT OF PEER DIFFICULTIES

Research Findings

A current focus of research on prevention/treatment of peer difficulties is school-based bully prevention programs. Reviews and meta-analyses have shown mixed results for the effectiveness of these programs (Bradshaw, 2015; Evans, Fraser, & Cotter, 2014; Ttofi & Farrington, 2011). Although some of the studies show decreases in bullying and victimization, others show no changes or even increases in negative behavior. Overall, it appears that these programs can be effective, but there are aspects of the research that need to be clarified, such as the way bullying and victimization are defined and assessed. In addition, much of the treatment research on bullying intervention has been conducted outside of the United States and many of these studies show better outcomes than U.S. studies (Evans et al., 2014). Even the most studied program, the Olweus Bullying Prevention Program, originally implemented in Norway, has shown inconsistent results in the United States, potentially due to the comprehensive nature of the program (i.e., school-level, classroom-level, individual-level, and community-level components) that not all schools are able to fully implement (Black, Washington, Trent, Harner, Pollock, 2010; Olweus & Limber, 2010).

Ttofi and Farrington (2011) found program elements most associated with a decrease in bullying and victimization were parent interventions through psychoeducation and training, and teacher training focused on increasing classroom rules, consequences, and adult supervision, particularly on the playground. In addition, comprehensive programs that intervene at several levels (e.g., school, home) to change school–home climate and adult response to negative peer interactions, have shown more change in problem behaviors. In contrast, peer interventions such as peer mentoring or coaching bystander intervention has been shown to increase victimization, suggesting that more needs to be known about these interactions before further interventions are attempted. Vernberg and Biggs (2010) recommend that programs (1) develop a coordinated response to change the culture and climate of the school; (2) train students to deal more effectively with bullying and support victims; and (3) involve parents in the process.

Since bullies and victims often show externalizing and internalizing behaviors, evidence-based programs that target particular child problem behaviors can be used to intervene with a child depending on his or her difficulties with peers (Vernberg & Biggs, 2010; Grills-Taquechel et al., 2010). For example, parent training and skills building can be used to treat a child who is aggressive (see Chapter 10), and social skills training and cognitive-behavioral therapy (CBT) can be used to target internalizing behaviors (see Chapters 7 and 8).

As is suggested by the literature, we do a functional analysis of peer difficulties to help identify what is needed in a particular situation (e.g., child social skills, school consultation on bullying policies). Intervention/prevention strategies are now reviewed for peer difficulties and bullying/victimization in the context of the CAIS framework.

Treatment Strategies

Intervention with the Child

When working with a child who has difficulties interacting with peers, the initial assessment should have identified particular strengths and weaknesses of the child and areas that need intervention. In many cases, the child has difficulties with social-cognitive skills and/or may need to increase conflict resolution skills. If the clinician is working with an aggressive child, particularly with reactive or impulsive aggression, the treatment can target increasing prosocial skills (and finding more prosocial friends), and anger management (Frankel, 2010b). Programs discussed in Chapter 10, such as Coping Power (Lochman, Boxmeyer, Powell, Barry, & Pardini, 2010) can be used to increase these skills, along with parental structure. For children who are victimized, social skills training and CBT programs that target increasing skills and decreasing comorbid depression and anxiety can be very useful (see Chapters 7 and 8). Frankel (2010b) particularly recommends that children who are teased learn social skills to seek out possible friends who have similar interests so that friends can help intervene in bullying instances. In addition, he recommends that instead of responding with anger or aggression, the child should find ways to assertively respond with humor (without teasing back), or by ignoring the behavior. Other areas that can be targeted with children who evidence externalizing and/or internalizing symptoms are relaxation training (e.g., calming techniques in stressful situations), cognitive restructuring (e.g., changing hostile attributions), problem solving (e.g., what one's choices are when faced with a bully), assertiveness training (e.g., ways to speak to the bully appropriately), role playing new skills, and exposure to difficult peer situations (Grills-Taquechel, Polifroni, & Pane, 2010).

Intervention with the Parents

Clinicians can provide parents with psychoeducation about bullying and victimization, how this effects children, and ways they can increase appropriate peer interactions at home, in the neighborhood, and school. If children are having difficulties making friends, parents can help increase peer networks of possible playmates. Examples might include coworkers of parents, neighbors, peers in the child's class at school, or family members (e.g., cousins). In addition, structuring the child's time (e.g., structured sports or other activities) and providing rewards for appropriate behavior and consequences for inappropriate behavior with peers can support the development of skills with peers (see Chapter 10). In helping children apply skills learned in treatment, parents can monitor peer interactions (e.g., playdates, computer use) and provide direct feedback to children about their interactions (e.g., give examples for appropriate ways to solve conflictual interactions). It may also be helpful for parents to meet the parents of peers to discuss ways that the parents may be able to intervene appropriately in negative peer interactions and/or consult with the school to develop a plan for their child that can be implemented both at home and at school.

Intervention in the Environment

If bullying/victimization is happening at school, it is important to encourage the family to talk to school personnel about interventions that can be carried out in this setting. Most states have passed laws about bullying, and schools should have policies to address this behavior (Cornell & Limber, 2015). The areas to discuss would be the school's (1) definition and assessment of bullying; (2) classroom rewards for prosocial behavior and consequences for misbehavior including bullying; (3) monitoring of student behaviors, particularly at less structured times such as at lunch, on the playground, and when changing classes; (4) process for investigating bullying and possible outcomes; (5) climate regarding bullying and victimization behavior, particularly after a child reports these types of behaviors.

Intervention in Medical/Health Aspects

Intervention in medical/health aspects is usually not necessary for peer difficulties unless there are comorbid problems such as significant ADHD, depression, or anxiety symptoms (see Chapters 7, 8, and 9).

CASE EXAMPLE: SCHOOL REFUSAL AND VICTIMIZATION

Step 1: Initial Contact

Mrs. Marter initially called the clinic about her 10-year-old daughter, Mary, who did not want to go to school. She reported that Mary was still going to school but was becoming more and more oppositional and anxious about leaving the house. Questionnaires (the General Parent Questionnaire, the ECBI, the CBCL, and the PSI-4) were sent out to both parents to complete before the initial interview.

The General Parent Questionnaire indicated that Mr. Marter worked as an accountant and Mrs. Marter, as a legal aid. Mary had an older sister, Martha, who was in middle school and doing well. Mary was having some academic problems in school, particularly in reading, and her grades had gotten worse in the past 6 months. Her teachers did not have any behavioral difficulties with her, particularly since she was quiet in class. Mary reportedly had no close friends but was rated as getting along with peers in a typical way. She also did not participate in any extracurricular activities. Although her health was generally good, Mary had had some medical procedures in the past and continued to have gastrointestinal issues at times, which would lead to missing school. Her parents did not report any difficulties with discipline in the past month, except the problem of going to school. They tried several things to get Mary to school, such as getting up earlier in the morning to have time to get ready and giving rewards for going to school. This helped initially but was no longer working.

On the CBCL, Mrs. Marter rated Mary in the borderline significant range for Anxiety and in the clinical range for Somatization. Mr. Marter rated anxiety higher than other areas, but not in the significant range. The ECBI showed moderate oppositional behavior but not in the significant range. Both parents reported high stress related to their child's adaptability and also high stress around the relationship with spouse.

Step 2: Initial Intake Interview

Parent Interview

Mrs. Marter appeared as a pleasant woman in her early 30s. Mr. Marter was unable to attend but told Mrs. Marter that because she dealt with the morning behavior more than he did, she would be a better reporter. Mrs. Marter reported that Mary was an average student, but in the past few months, she was getting more and more anxious about Mary's performance at school. Mary also reported more stomachaches, which resulted in staying home a few days and a visit to her pediatrician, who could not find a medical problem. Mrs. Marter required her to go to school. It was becoming more and more of a struggle to get her there, and Mary had been late a few mornings. Mrs. Marter reported that these difficulties were putting more stress on her marriage, since she and her husband did not always agree on how to respond to Mary's emotional upset. Mary did not have any friends presently, other than some peers she identified at school. As a young child, Mary spent a great deal of time playing with her sister, with whom she had a good relationship; she had had a special friend in preschool, and in elementary school had developed a close relationship with a girl who lived in the neighborhood and went to her school. About 6 months ago, this friend moved, and although Mary knew children in the neighborhood, she did not have another good friend and decided to stop going to Girl Scouts after the friend moved. Mary often tried to play with her sister, Martha, and Martha's friends, which had worked when they were younger, but now her sister was in middle school, and she and her friends had different interests than Mary. Her sister had always been the more outgoing child, in contrast to Mary, who was usually reticent to enter new situations, tended to follow others' lead, and did not want to do sleepovers. She had, however, enjoyed visiting her friend during the day and having her friend spend the night. At home, Mary was not afraid to express her likes and dislikes, especially with her sister.

Child Interview

Mary, a thin, pale girl, was shy in meeting the clinician. She chose to draw a picture while talking to the clinician. She reported that she did not like going to school and it was not as much fun since her friend, Becky, moved. She had enjoyed doing a lot of different activities with Becky, especially playing at recess and going to Girl Scouts. She currently did not have any good friends at school. In addition, although she liked her art class, she did not like any of her other classes, especially reading, the first class of the day, which caused her to feel bad for the rest of the day.

Step 3: Observation of Behavior

A school visit was arranged for the clinician to observe reading class. The clinician noticed that Mary did have some difficulties reading, that she was seated away from the teacher, and that there was a particular peer who talked to her a lot during the class. Mary's demeanor seemed to change over the course of the class time, becoming more inattentive and sullen at the end.

The clinician shared these observations with the parents, who talked to Mary about it. After some hesitancy, Mary reported to them that the girl in the class was Lucy, who used to be her friend and Becky's. When Becky moved, Lucy started to say mean things about Mary and was friends with girls who made fun of Mary's clothes and excluded her from games. During reading class, Lucy was making fun of Mary's performance on her assignments and poking her when the teacher was not looking. As Mary told her parents these things, she started crying and said that these girls were telling mean stories about her to other kids, and some boys were now starting to come up to her at lunch and say mean things. Her sister, Martha, reported that Mary had been bullied in the past, but Martha told them to go away; now that she was at a different school, she could no longer protect Mary.

Step 4: Further Assessment

The clinician sent questionnaires to the school and also talked to Mary's primary teacher. On the CBCL, her teacher's scores were consistent with her parent's scores, reporting high anxiety and somatic symptoms. The teacher reported that Mary was usually quiet in class, appeared worried about her performance, and was often distracted. Although Mary had some problems with reading, these were not seen as major problems.

Step 5: Collaboration with Other Health Care Professionals

Referral to other professionals was not necessary in this case.

Step 6: Communication of Findings and Treatment Recommendations

All of the family attended the feedback session. The clinician discussed Mary's strengths and factors that appeared to be related to her school refusal. Overall, Mary tended to be quiet and anxious in school. Without her friend and her sister with her at school, Mary seemed to have become a target for some bullies, and she was unable to defend herself. This led to continued bullying, as well as academic and social difficulties. The clinician discussed a plan that would involve working with Mary, her parents, and the school to decrease the bullying and increase Mary's social and assertiveness skills. The parent's readily agreed to treatment that would help Mary learn skills to deal with bullying and increase friendship skills, to work with the school, and to provide extracurricular peer activities. Her sister also agreed to help as needed. Mary appeared relieved to have a way to deal with the bullying and was particularly happy to have her family's support.

Course of Treatment

Treatment was implemented in several areas. Initially, the clinician and family worked with the school regarding the bullying. Since Mrs. Marter was a legal aid, she was familiar with laws on bullying and knew that the school had antibullying policies that had been used appropriately with other children. The clinician set up a meeting at the school, in which a plan was made for the reading teacher to change the seating in the classroom, monitor, and provide consequences for negative behavior, and for teachers to monitor the lunchroom more closely. The clinician also reported that she would be working with Mary on social skills and assertiveness training to respond to the bullying, and the guidance counselor agreed to support these skills in the school setting. He planned to do this by having her teachers include Mary in team projects with other children, and he would ask her to be part of a weekly group that focused on dealing with bullies and other difficult peer situations. The counselor also suggested that the parents meet with Lucy's (the child bullying Mary) parents, but Mary's parents decided against this. However, as part of the school policy, the school arranged to talk with Lucy and her parents about the situation, discuss the effects of bullying behavior on both Lucy and Mary, and to support more appropriate behavior. The clinician and counselor agreed to keep in touch to coordinate efforts and report on progress. The parents were also encouraged to keep in touch with the school.

The clinician worked with Mary on building social skills and assertiveness to address bullying, as well as on making friends. Mary's sister attended several sessions to help with role playing and possible reactions from peers. In addition, CBT was used to add skills to help Mary manage her anxiety around school performance and peers. Concurrent to working with Mary, the clinician also worked with her parents on ways to be more proactive in setting up playdates with peers from school and the neighborhood who had similar interests as Mary, and to find some structured extracurricular activities that Mary would enjoy. In addition, they made a plan to reward Mary for attending school, choosing peers to play with, and interacting with peers during playdates and extracurricular activities.

Weekly sessions were conducted with the family over 3 months. At that time, Mary was going to school without upset, rejoined the Girl Scouts, and had regular successful playdates with children in her neighborhood/school. Although difficult for her, with the support of her sister and new friends, Mary also learned to deal with the peers who bullied her by giving assertive responses and walking away. Mary's grades improved, and teachers reported that she was interacting positively with several peers, and there were no more reports of bullying behavior. Although Mary continued to evidence some anxious symptoms, her overall anxiety had decreased and she was using coping strategies more often.

RESOURCES FOR CLINICIANS

McGinnis, E. (2011). *Skillstreaming the elementary school child: A guide for teaching prosocial skills* (3rd ed.). Champaign, IL: Research Press.

Vernberg, E., & Biggs, B. (2010). *Preventing and treating bullying and victimization*. New York: Oxford University Press.

RESOURCES FOR PARENTS

Faber, A., & Mazlish, E. (2012). *Siblings without rivalry: How to help your children live together so you can live too*. New York: Norton.

Frankel, F. (2010a). *Friends forever: How parents can help their kids make and keep good friends*. San Francisco: Jossey-Bass.

Koocher, G. P., & La Greca, A. M. (2011). *The parents' guide to psychological first aid: Helping children and adolescents cope with predictable life crises*. New York: Oxford University Press.

CHAPTER 13

Divorce

Approximately 43–46% of families and children in the United States experience divorce (Centers for Disease Control and Prevention, 2015). Although the divorce rate has been declining since the 1980s, this trend is offset by the increase in the number of children born to unmarried, cohabiting parents who experience family disruption (Amato, 2010). Increases in education and age of first marriage are also factors in the divorce rate; since the 1970s, the divorce rate has been declining for college-educated couples but has remained flat for non-college-educated couples (Heaton, 2002). Racial/ethnic differences have been noted in the demographics of divorce; more African Americans experience divorce than do European Americans and Hispanics (55% vs. 42%; Bramlett & Mosher, 2002). Also, more Hispanics and African Americans are likely to end their marriages in permanent separations rather than divorce (Bramlett & Mosher, 2002).

A large body of research documents that divorce increases the risk for maladjustment and academic problems in children and adolescents; 20–25% of children in divorced families show childhood problems compared to 10% of children in intact families (e.g., Amato, 2001, 2010; Kelly, 2012). Amato (2001), in meta-analyses conducted 10 years apart, found that the largest effects were externalizing problems: conduct problems, impulsivity, antisocial behavior/delinquency, relationship issues (parents, peers, authority figures) and academic underachievement. Although less consistent, internalizing problems, including depression, anxiety, and low self-esteem, were also more common in children of divorced parents. Many children continue to experience their parents' divorce as a significant negative influence in their lives through adolescence and well into adulthood. Adults with divorced parents tend to obtain less education, have lower levels of psychological well-being, have more marital problems, are at greater risk for divorce, and feel less close to their parents, especially fathers (Amato & Sobolewski, 2001; Barrett & Turner, 2005; Wallerstein & Lewis, 1998; Wolfinger, Kowaleski-Jones, & Smith, 2003).

It is important to note, however, that not all children experience lasting negative effects as a result of divorce (Hetherington, 2006; Kelly, 2012; Marquardt, 2005). For example, Hetherington and Kelly (2002) found that 2 years after a divorce, 75–80% of the children scored within the average range on psychological adjustment, social, and behavioral measures. Many children cope amazingly well with the stresses that occur in the aftermath of parental separation and function competently in all aspects of their lives. However, there is also evidence that many adults who are reportedly well adjusted on standardized measures describe their childhoods as "difficult" (e.g., experienced family events and holidays as stressful, felt torn between their mother's and father's households, missed their fathers, had to take on more adult responsibilities), and felt that the divorce continues to impact them (e.g., they worry about both parents attending special events) (Laumann-Billings & Emery, 2000; Marquardt, 2005). Thus, divorce can be experienced as a painful process even when a child or adult of a divorced family is described as *well adjusted.*

The research comparing children from never-married, single-parent families to continuously married families indicates that the children from the never-married, single-parent families had similar problems to children from divorced families. They are more likely to experience a variety of emotional, cognitive, and behavioral problems, to have less education and earnings and more troubled marriages (Teachman, 2008). Similarly, children living with cohabiting biological parents also have more emotional, behavioral and academic problems, as well as a higher risk for parental separation (Brown, 2004; Kelly, 2012).

Given the changes in societal acceptance of gays and lesbians as parents and the recent U.S. Supreme Court ruling on same-sex marriages (*Obergefell v. Hodges,* 2015), it is very likely there will be more research on these families with children. While studies have demonstrated that children raised by gay and lesbian parents have healthy social relationships, gender role development, and behavior, and are not at increased risk for behavior disorders (see Chapter 1), there is currently little research regarding the effects of separation, divorce, or custody issues for lesbian, gay, bisexual, or transgender (LGBT) families and their children (Johnson, O'Connor, & Tornello, 2016).

Given the many changes, both positive and negative, that occur before, during, and after a separation, many parents involved with marital dissolution are also at risk for mental and physical health problems (Wood, Goesling, & Avellar, 2007). Longitudinal studies indicate that for most parents, divorce is generally followed by short-term declines in psychological, social, and physical well-being, but after a few years, they adapt well to their new lives (Hetherington, 2003; Waite, Luo, & Lewin, 2009; Lorenz, Wickrama, Conger, & Elder, 2006).

There are several ways that divorce creates changes in children's lives. For example, one parent leaves the household; the resident parent has to adjust to being a single parent; there is often a decline in standard of living; a move to a new neighborhood or school may occur; and stepparents or new partners are introduced into children's lives. There might also be positive changes, such as decreased verbal and/or physical conflict, or an opportunity for more positive fulfilling relationships (Hetherington, 2006). Amato (2010) stated, "Rather than ask whether divorce effects children, a more pertinent question may be how and under what circumstances does divorce effect children either positively or negatively?" (p. 658). Research has therefore shifted from examining the differences between children with divorced and those with intact families, and the general negative effects of divorce, to defining the factors that mediate children's adjustment to the stresses of divorce and determining which children's well-being improves, which children show no or little changes, which children's initial problems gradually improve, and which children develop problems that persist into adulthood (Amato, 2010).

EFFECTS OF DIVORCE ON CHILDREN

Divorce is most appropriately viewed as a process or a "series of transitional events," in that it is not the divorce per se that affects the child and family, but the often prolonged process of change and adaptation that precedes and follows the divorce (Amato, 2010; Cavanagh, 2008; Hetherington & Stanley-Hagan, 1999). It has been demonstrated that some factors (especially poor parent–child relations and poor quality of parenting) that are thought to contribute to a child's poor adjustment may exist well before a marriage actually breaks up (Hetherington, 2006; Kelly, 2012). Other factors, such as the remarriage of one or both parents, may occur years after the original divorce. Hetherington and her colleagues (Hetherington, Bridges, & Insabella, 1998; Hetherington & Stanley-Hagan, 1999) have proposed a risk and resilience model to explain the interrelatedness of the many factors that have been shown to influence children's adjustment. It may be the balance between these stresses on the family, the characteristics of the family and the child, and the available resources that determine the impact of the stresses on divorced and/or remarried parents and their children. Rutter's (1983) conceptualization of the cumulative effects of stress on coping and adaptation is also applicable to the issues of divorce. This approach indicates that when working with children of divorce, the clinician must understand all the potential sources of stress that have been identified in the research literature, then assess each of these and their cumulative effect for the individual child and his or her parents. Some factors may have indirect rather than direct effects—for instance, the well-documented lowered socioeconomic status of women following divorce may have indirect rather than direct effects on children's adjustment, in that it may be mediated by other factors, such as the increased stress on the mother and less availability, leading to ineffective or poor parenting (Hetherington et al., 1998).

We briefly review research relevant to the sources of risk that have been identified as important to understanding a child's adjustment following parental divorce: preseparation experiences; economic factors; parent psychological adjustment; parent conflict; quality of parenting and co-parenting; the parent–child relationship; parent dating, cohabitation and remarriage; family structure transitions; child factors; and custody and visitation.

Preseparation Experiences

A number of longitudinal studies support the importance of the family history before the divorce and its effect on children's ability to cope with the stress of separation, as well as their longer-term risks (e.g., Sun & Li, 2001, 2002). For example, in an early, large longitudinal British study that assessed children at 7, 11, 15, and 23 years of age, Cherlin et al. (1991) found that half of the behavioral and academic problems of children whose parents later divorced were observed 4 to 12 years before separation and were similar to symptoms of divorced children. In contrast, if a child is removed from a supportive low-conflict family, he or she is likely to experience increased adjustment problems. A study of 5,530 adolescents (mean age of 16.4 years) found that adolescents who were strongly attached to the same-sex parent preseparation and then separated from this parent, were especially likely to engage in delinquent behavior 18 months after the divorce (Videon, 2002). Interestingly, adolescents who were weakly attached to the same-sex parent showed no corresponding increase in delinquency if separated from that parent. Furthermore, the quality of preseparation relationships with opposite-sex parents influenced adolescent depression regardless of living arrangements (Videon, 2002).

Economic Resources

Separation and divorce involve setting up two separate households, which usually results in a substantial decline in income for both the maternal and paternal households. Statistically, single-parent families are more economically stressed than two-parent families; 28% of single mothers and 11% of single fathers live in poverty, compared to 8% of two-parent families (Grall, 2007). Lack of adequate financial resources, particularly for mothers, often leads to increased working hours, making them less available to their children, typically just at the time when the children most need their support and supervision. Moreover, economic and work-related stress can have an indirect impact on mothers' mental and physical health, which in turn may affect their ability to parent effectively, which increases childhood problems (Braver, Shapiro, & Goodman, 2006; Conger, Conger, & Martin, 2010; Hetherington & Kelly, 2002). Thus, the negative effects of economic distress on children's adjustment are most likely mediated by disrupted parenting.

Parent Psychological Adjustment

The adjustment of the primary parent, usually the mother, is one of the best predictors of children's outcomes after divorce (Cummings & Davies, 2010; Kelly, 2012). Significant psychiatric problems (e.g., depression, anxiety, personality disorders) interfere with the quality of parenting and parent–child relationships, which in turn is associated with child adjustment problems (Hetherington, 2006; Lamb, 2016; Meadows, McLanahan, & Brooks-Gunn, 2007). Meadows et al., using the national longitudinal Fragile Families and Child Wellbeing Study sample, studied the association between parental major depressive episodes and generalized anxiety disorders and childhood problems among 3-year-olds in 2,120 families of four family types (married, cohabiting, involved nonresident father, and uninvolved nonresident father). Regardless of family structure, they found that maternal depression and anxiety were associated with increased likelihood of anxious/depressed, attention deficit, and oppositional defiant disorders in children. The risk increased if both parents were anxious/depressed and the father was a co-resident. Pruett, Williams, Insabella, and Little (2003) found that in divorcing families with children birth to age 6 years, the greater number of psychological symptoms in either parent was associated with more negative changes in the parent–child relationship, which mediated child adjustment problems. Involved fathers in married families can buffer the effects of maternal depression (Mezulis, Hyde, & Black, 2004), but it is unclear whether fathers can buffer the effects of maternal depression if they have limited time with their children (Kelly, 2012).

Parental Conflict

Ongoing parental conflict is clearly related to adverse effects on child adjustment, both among children whose parents have divorced and those whose parents remain married (e.g., Cummings & Davies, 2010; Johnston, Roseby, & Kuehnle, 2009; Kelly, 2012). Children from divorced families in which there is little conflict after the divorce do not differ in adjustment from children in low-conflict, intact families (Forehand, McCombs, Long, Brody, & Fauber, 1988; Hanson, 1999). Moreover, the adjustment of children in high-conflict families is often improved following divorce (Kelly, 2005, 2007), whereas children who remain in high-conflict intact families may show increases in adjustment problems over time (Morrison & Coiro, 1999). Several longitudinal studies also indicate that some parents with low or moderate predivorce conflict had high conflict after the separation due to factors such as (1) an imbalance in the desire for a separation; (2) anger due to feeling abandoned; (3) personality disorders and mental illness; and (4) adversarial litigation over finances and parenting arrangements (Johnston et al., 2009; Kelly, 2003).

The negative effects of high levels of parental conflict on the quality of parent–child relationships can be either direct (e.g., modeling aggression in response to frustration/anger) or indirect through the quality of the parent–child relationship. In general, parental conflict is associated with more hostile parenting behavior; more rejecting, erratic, and harsh discipline; less warm and nurturing parenting by the mother; and the father's withdrawal from parenting and engagement in more intrusive interactions with the children (Cummings & Davies, 2010; Grych, 2005). Important factors influencing the impact of conflict on children include the intensity of the conflict, the conflict styles used, and the focus of the conflict. More intense or severe conflict, especially that which involves marital violence and child maltreatment, results in higher levels of child disturbance (Kelly & Johnston, 2008). Cummings & Davies (2010) report that the effect of high-intensity parental conflict is associated with more insecure attachments and anxiety in infants and toddlers, and more distress and insecurity in young children. The largest impact of intense conflict is on older children and adolescents, who experience more externalizing and internalizing problems. Kelly (2012) reports that for both married and divorced couples, overtly hostile conflict styles (e.g., slapping, screaming, contempt) are more strongly associated with externalizing problems, while covert conflict styles (e.g., passive–aggressive, "cold shoulder") are linked to depression, anxiety, and withdrawal. Furthermore, children in violent families compared to non-violent ones had higher rates of sibling violence, particularly among brothers, with the victims of sibling violence experiencing poorer peer relationships, depression, inability to trust, poor self-esteem, and substance abuse (Kelly & Johnston, 2008).

Between 12 and 18% of parents remain highly conflicted after divorce; the most destructive conflict is involving the children in the conflict and making disparaging remarks about the other parent. Much of the conflict evidenced by divorced couples with children focuses on child-related issues such as visitation, custody, discipline, and child support (Hetherington & Kelly, 2002). Children placed in the middle of the parental dispute by one or both parents are more likely to be depressed and anxious, to express self-blame and feel shame, and to fear being drawn into conflict (Grych, 2005; Hetherington, Cox, & Cox, 1976; Kelly, 2012). Increases in the number of cases subjected to mediation by the U.S. courts reflect attempts to address this problem. Mediation decreases the likelihood of litigation after the final divorce decree and is associated with greater satisfaction with the divorce process (Emery, 2012; Emery, Sbarra, & Grover, 2005). Mediation also has been shown to reduce child- and parent-reported distress (Ballard, Holtzworth-Munroe, Applegood, D'Onofrio, & Bates, 2013). Considerable research on the benefits of divorce and custody mediation has led some to conclude that it should be a mandatory first step in resolving child-related issues (Emery, 2012). Indeed, some states have mandated mediation sessions in all divorce cases involving young children.

Kelly (2012) identifies a number of factors that can buffer children against high levels of parental conflict, including (1) warm, competent parenting; (2) encapsulating the conflict so the children do not see or hear it; (3) not using the children to express hostility to the other parent or putting children in the middle of the conflict; and (4) refraining from attacks on or demeaning statements about the other parent. Cummings and Davies (2010) point out that conflict should not be seen as a homogeneous risk factor; rather, children can be exposed to many different forms of marital conflict tactics or emotions. For example, observation of *constructive conflict* (e.g., problem solving, positive affect, compromise, other forms of conflict resolution) may increase children's positive affect and decrease behavioral and cognitive indicators of insecurity. Conversely, *destructive conflict*, which exposes children to physical aggression and to verbal hostility (e.g., negative tone of voice, yelling, verbal threats), and nonverbal hostility (e.g., withdrawal from conflict, stonewalling) elicits more negative affect and feelings of insecurity in response to the conflict. Parents who give brief explanations of how the conflict was resolved and expressions of optimism about the resolution help decrease children's distress (Cummings & Davies, 2010).

Given the research on the effects of parental conflict on children's adjustment, how does one address the question: "Should parents remain together for the sake of the children?" Some authors conclude that parents should remain together (e.g., Wallerstein & Kelly, 2008; Maher, 2004), while others conclude that growing up in a highly conflicted household does not benefit the child (e.g., Cherlin, 2009; Coontz, 2006). There is really no "best" answer to this question; rather, it depends on the individual family and the many factors leading up to the separation and divorce.

Quality of Parenting and Co-Parenting

Regardless of family structure, the quality of parenting has a major impact on children's adjustment, and it is sometimes seen as more important than parental conflict (Emery, 2012; Kelly, 2012; Lamb, 2016). The quality of parenting often deteriorates during and after a family separation, with many parents becoming preoccupied, emotionally labile, angry, and depressed. Other factors have also been associated with reductions in the quality of parenting, such as parents' psychiatric problems, violence, high conflict, financial instability, poverty, dating, cohabitation, and remarriage (Amato, 2010; Cummings & Davies, 2010; Hetherington, 2006; Kelly, 2012; Lamb, 2016). These stresses can lead to less positive involvement (monitoring and supervising), less warmth and affection expressed with their children, and more coercive and harsh forms of discipline which, in turn, are associated with children's poorer adjustment (Golombok, 2015; Lamb, 2016).

Conversely, effective parenting can moderate the impact of separation/divorce on children's social, emotional, and academic adjustment, as well as the negative effects of high conflict. Separated mothers' effective parenting strategies associated with positive child outcomes after divorce include warmth, authoritative discipline (setting limits, noncoercive discipline and control, enforcement of rules, appropriate expectations), encouragement of academic skills, and monitoring of children's activities (see Maher et al., 2016). Fathers also may play a role in their child's positive adjustment after a separation by active involvement in the child's life, authoritative parenting, and monitoring of activities (Lamb, 2016).

Kelly (2012) describes three types of postdivorce co-parenting relationships:

1. *Cooperative co-parentin*g involves mutual planning, coordinating children's activities, offering parental support, and some schedule flexibility. This low-conflict parenting promotes resiliency in children and is achieved by 25–30% of divorced families.
2. *Parallel co-parenting* involves emotional disengagement from each other, low communication that does not coordinate child-rearing practices or activities, and low conflict. They generally follow rules but provide separate parenting. The majority (over 50%) of parents fall into this category and although not ideal, it works well for children, especially when each home provides nurturing and adequate parenting (Hetherington & Kelly, 2002).
3. *Conflicted co-parenting* is characterized by poor communication, low cooperation, high distrust, control and dependency, and failed decision making. This type of co-parenting poses the highest risk for a child's positive adjustment.

Parent–Child Relationships

From the child's point of view, the most salient and painful aspect of parental separation is the perceived loss of one beloved parent, usually the father, and for many children this loss is real. In a study that identified groups of fathers based on their frequency of contact 12 years postseparation from 1986 to 2002 (the Children of the National Longitudinal Survey of Youth data base), Cheadle, Amato, and King (2010) found that the largest group of fathers (40%) maintained high levels of contact over 12 years. About 30% of the fathers who usually lived 100 miles away, who were less educated and never married, started with low contact and maintained it. Less than 25% of all fathers decreased their contact, which was often due to relocation, with many continuing to provide child support. At the same time as contact with the noncustodial parent decreases, attention from the custodial parent may also be limited because of increased work hours, increased social activities, and greater responsibility for household tasks. Thus, the nature of a child's relationship with both parents following divorce is a key factor in how the child adjusts to the divorce.

Even when fathers and children continue to see each other, the majority of relationships decline in closeness over time (Scott, Booth, King, & Johnson, 2007). This is due to the traditional visiting patterns of every other weekend and few, if any, overnights for young children, which research indicates does not allow sufficient time for quality parenting (e.g., Fabricius, Sokol, Diaz, & Braver, 2016). Frequent, regular overnight visits, including midweek and weekend nights, allow a father to play a role in the child's positive adjustment after a separation, particularly when it occurs in a conflict-free context, the father does not have significant psychopathology, and the custodial mother is satisfied with the level of contact (King & Heard, 1999; Maher et al., 2016; Modecki, Hagan, Sandler, & Wolchik, 2015). The combination of shared activities (help with homework/projects, discussion of grades and other school issues, attending school and extracurricular activities), emotional support and warmth, and open parent–child communication has been shown to decrease school failure and improve child and adolescent positive adjustment (Maher et al., 2016; Menning, 2006). In a sample of high-conflict divorces, Sandler, Wheeler, and Braver (2013) found that mothers' and fathers' quality of parenting were positively related to the child's well-being when the number of overnights was moderate or high compared to few overnights. Sandler et al. recommend that a minimum of 30% overnights is needed for the quality of parenting to positively impact child well-being.

Changes in parent–child relationships following divorce are not inevitable, especially for children who have positive relationships with their parents prior to divorce. Although it may take several years for caregiving and discipline patterns to stabilize after the disruption of divorce, longitudinal research indicates that most families reach a new equilibrium within 2 years after the separation, and many child behavior problems then decrease (Hetherington & Stanley-Hagan, 1999; Kelly, 2012).

Parental Dating, Cohabitation, and Parental Remarriage

While it is normal for divorced parents to get involved in new romantic relationships, it is rare that these are viewed positively by children, who must deal with entirely new sets of relationships and more transitions. Furthermore, parents are often preoccupied by new relationships and therefore become less attentive and available to their children. Hetherington and Kelly (2002) found that most mothers had three to five serious relationships before remarriage, and that the majority cohabited before marriage. Cohabiting relationships are unstable, with half of the mothers' cohabitation arrangements lasting less than a year and only 10% lasting 5 or more years (Hetherington & Kelly, 2002). A number of researchers report that cohabitation is associated with more negative child outcomes (increased behavioral, delinquency, and academic problems) than is remarriage (Buchanan, Maccoby, & Dornbusch, 1996; Manning & Lamb, 2003). However, remarriage is not without risks; Hetherington and Kelly (2002) found that there is a 5- to 7-year period of destabilization and elevated stress after the stepfamily is formed. Subsequent marriages have higher rates of divorce than first marriages, and the presence of children increases the risk that the second marriage will fail (Teachman, 2008).

Research indicates that children growing up in stepfamilies are at greater risk for a variety of adjustment problems than are those in intact families (Hetherington & Kelly, 2002; Kelly, 2012), although these difficulties may be mediated by the quality of a child's relationship with his or her parents and/or stepparent, the number of marital transitions the child has experienced, and socioeconomic factors that predate the remarriage (Amato, 2010; Nicholson, Fergusson, & Horwood, 1999). In a two-wave study of 1,753 adolescents, King (2009) found that when adolescents had a close relationship with their mother before remarriage, they were more likely to develop close ties to their stepfather. Furthermore, the formation of a stepfamily had little effect on adolescents' closeness to nonresident fathers. Interestingly, while most adolescents reported being close to their mothers, over half reported not being close to their nonresident parent, and 45% were not close to their stepfathers. When adolescents rated the quality of the stepfather relationship as "good," there was a lower risk of both externalizing and internalizing problems, which was also true when the adolescent had a nurturing relationship with the nonresident father (King, 2009).

Unfortunately, most researchers find that when either the father or the mother remarries, nonresidential fathers reduce their involvement with their children (Blackwell & Dawe, 2003; Hetherington & Kelly, 2002; Manning, Stewart, & Smock, 2003). Some mothers prefer to have the stepfamily operate as if it were a first-marriage nuclear family and try to *gatekeep* or restrict the nonresident father's involvement by making it more difficult for children to talk to their father, disrupting the father's plans to be with his children, or subtly encouraging children to think of the stepfather as the primary paternal figure in their lives (Ganong & Coleman, 2004; Marsiglio, 2005; Visher & Visher, 1996). Remarried nonresidential fathers and stepmothers can also engage in gatekeeping by trying to keep children longer than planned (Ganong, Coleman, & Jamison, 2011). When children are restricted or discouraged from maintaining ties with nonresidential parents, they often experience loyalty conflicts and feel torn between the stepfather and father or the father and the mother, which can be divisive and stressful for them (Amato & Afifi, 2006).

Early research that is still pertinent today indicates that both boys and girls have difficulties adjusting to stepfathers during the first 2 years after remarriage (Hetherington, 1989). After 2 years, however, boys appear to adapt well and appear better adjusted than boys whose mothers have not remarried, whereas girls may continue to have difficulties accepting stepfathers. Hetherington et al. (1998) suggest that stepfathers provide a degree of structure, supervision, and support to boys that is lacking in mother-custody families. In contrast, girls may have developed particularly close relationships with their mothers that are disrupted by the appearance of stepfathers. Furthermore, in contrast to intact families, close marital relationships between mothers and stepfathers and active involvement in parenting on the stepfather's part are associated with increased parent–child conflict, especially between girls and their stepfathers. Hetherington (1989) concluded that it can be extremely difficult for stepfathers to integrate themselves into families with preadolescent girls, and that the best strategy for a new stepfather is initially to make no attempt to control a child's behavior; rather, the stepfather should establish a good relationship with the child and support the mother in her discipline. Later, the stepfather should adopt an authoritative parenting style.

Family Structure Transitions

Family transitions (e.g., separation, divorce, dating, cohabitation, remarriage, termination of cohabitation, redivorce) require the child to adapt to new relationships and lead to decreased parental attention, increased parenting demands, and often new schools and neighborhoods. There is research to support that the number of family structure transitions versus the divorce itself affect the child's well-being. For example, multiple family transitions have been associated with children's behavior problems (Cavanagh & Huston, 2006), drug use (Cavanagh, 2008), academic achievement (Martinez & Forgatch, 2002), having a nonmarital birth (Hill, Yeung, & Duncan, 2001), and relationship instability in adulthood (Wolfinger, 2000). A study of 1,975 mothers during their children's first 5 years of life found that both co-residential and dating transitions were associated with higher parenting stress and harsher parenting, and each additional transition was associated with increased levels of maternal stress and more frequent harsh parenting (Beck, Cooper, McLanahan, & Brooks-Gunn, 2010). Less educated mothers reacted more negatively with each transition. and educated mothers provided fewer literacy activities (e.g., reading, singing). Cavanagh and Huston (2006), in a study of 1,364 elementary school-age children, found that the cumulative level of family instability negatively affected social development, particularly for boys, by the end of elementary school.

Child Factors

Temperament

Given the extensive work on the relationship between child temperament and the development of behavior problems, it should not be surprising that a child's personality characteristics are related to his or her adjustment following divorce (see Cummings & Davies, 2010; Lamb, 2016). Hetherington and Stanley-Hagan (1999) state that the relationship between temperament and adjustment is complex, with the levels of stress and adjustment in custodial mothers predicting parent–child interaction, which in turn predicts child adjustment. If custodial mothers are emotionally stable and under low levels of stress, there is no difference in their reactions to temperamentally easy versus difficult children. Under conditions of high stress and/or when mothers have significant emotional problems, however, they interact more negatively with temperamentally difficult children than with easy children; increased stress increases adjustment problems for difficult children, while moderate levels of stress promote better coping in easy children than small or large amounts of stress. Lengua, Wolchik, Sandler, and West (2000) found that parenting style interacts with aspects of child temperament to predict adjustment. Parental rejection is more strongly related to adjustment among children with low positive emotionality (frequency of smiling, laughing, cheerfulness, and general happy mood), whereas inconsistent discipline predicts adjustment problems for highly impulsive children. Negative emotionality (frequency and intensity of the expression of feelings such as anger, fear, or sadness) did not interact with parenting style; rather, it independently predicted depression.

Developmental Status

Research indicates that developmental stage is more important than age in children's adjustment to divorce. For example, attachments become increasingly intense between ages 6 and 24 months, and children during these first few months lack the cognitive and communication skills to cope with the loss of attachment figures. Therefore, during this developmental stage, it is important for the child to have frequent time with a caring, supportive noncustodial parent. By age 2–3 years, children are better able to understand that parents are not always with them (Greenberg, Cicchetti, & Cummings, 1990; Lamb & Lewis, 2015; Thompson, 2006). Studies indicate that the earlier the age of separation, the greater the negative impact on the quality of the children's relationships with their fathers, who are usually the noncustodial parent (Lamb, 2016).

In general, preschool children and adolescents are thought to be at higher risk for problems than school-age children. Preschoolers are less able to understand the causes and consequences of divorce, lack well-developed coping skills, may engage in more self-blame, and have greater fears of abandonment (Johnston et al., 2009; Kott & Shoemaker, 1999; Lamb, 2016). Moreover, infants and preschool children are vulnerable to higher rates of maltreatment, which is reported to be most common in homes with a stepfather or boyfriend, with 80% of the maltreatment occurring between birth and age 4 years (Radhakrishna, Bou-Saada, Hunter, Catellier, & Kotch, 2001). Children living with single parents who have a live-in partner are at least eight times more likely to be maltreated in one way or another than are children living with married biological parents (Sedlak et al., 2010). Adolescents, in contrast to younger children, may be particularly sensitive to issues of sexuality and independence, and may need more supervision than a single parent or a stepfamily is able to provide. Moreover, teenage girls are at higher risk of sexual abuse by stepfathers than are younger children (Daly &

Wilson, 1996). Indeed, adolescence may trigger problems in children who otherwise have been functioning adequately since their parents' divorce many years previously (Hetherington & Stanley-Hagan, 1999).

Coping Styles

Emotional regulation, a specific aspect of temperament, is emerging as a factor in predicting children's ability to cope with parental conflict (Cummings & Davies, 2010). Cummings and Davies suggest that the ability to regulate affective states (e.g., anger, sadness, happiness, fear) influences how children perceive and react to parental conflict; children who tend to show predominantly negative affective states are more likely to be distressed by parental anger, whereas those who tend to show more positive states experience less distress. Furthermore, the more negative a child's emotional reaction to adult conflict, the higher the child's risk for behavior problems. Cummings and Davies suggest that the parents' resolution of conflict, as well as the child's temperament, is important in understanding the child's ability to cope. Hostile conflict appears to increase the likelihood that a child will become inappropriately involved in parental conflict by forming coalitions with one parent against the other, by proposing solutions to the conflict, or by helping with the tasks that were the initial cause of the conflict. When conflict is resolved positively, the child is less likely to engage in these ineffective coping strategies.

Other research has focused on specific coping strategies used by younger and older children and their relation to child adjustment. Kurdek and Sinclair (1988), for example, found that adolescents who tended to use externalizing coping strategies (e.g., inappropriately ventilating feelings to parents or others, using drugs or alcohol, or smoking) were less well-adjusted than those who used outside support strategies (e.g., talking with friends, clergy, or professionals). Johnston, Campbell, and Mayes (1985) found that younger children (ages 6–8) tried to control their parents' disputes by actively intervening or trying to distract their parents. These younger children were also more likely simply not to cope, displaying various symptoms of acute distress (hyperventilation, stomachaches, headaches, crying, asthma attacks). Older children (ages 9–12) were more likely to take a strong stand in their parents' fights or to take the side of one parent versus the other. Two-thirds of the children at both ages coped by avoiding the argument (blocking eyes and ears, retreating to their rooms, etc.). Avoidance was judged to be the most adaptive response in dealing with parental conflict.

In contrast to these results, avoidance as a style of coping with parental divorce in general (in contrast to specific parental conflict) was found to be related to poorer adjustment, whereas active cognitive responses (changing one's perception of a problem) and active behavioral responses (doing something about the problem) were associated with good adjustment in a study of young adolescent girls (ages 12–16; Armistead et al., 1990). Taken together, the work on children's coping strategies suggests that cognitive-behavioral approaches to treatment/prevention for children of divorced parents, with a focus on positive thinking and active problem solving, would be beneficial.

Children with Special Needs

Children with disorders such as seizures and cerebral palsy, autism, attention-deficit/hyperactivity disorder (ADHD), disruptive behavior disorders, and other psychological and medical disorders require special attention when parents separate and divorce. It is important that each child's specific needs (e.g., physical needs, level of attention, flexibility in managing change, ability to regulate fear and anxiety, and understanding of what others are asking of him or her) be taken into consideration. In addition, it is important to consider the ability of the parents to engage in co-parenting that requires good communication and cooperation, the effects of additional stress when parenting a child with special needs, the economic resources in meeting the child's needs, the importance of consistency in a child's life, and the support and resources of each parent (Birnbaum, Lach, & Saposnek, 2016; Kerns & Prinz, 2016). For example, Sandler et al. (2013) found that when there were high levels of interparental conflict, children ages 9–18 with any type of mental disorder had better outcomes when they spent time predominantly with one parent who provided high-quality parenting and with whom they had the strongest relationship. See Birnbaum et al. (2016) and Kerns and Prinz (2016) for an in-depth discussion of children with special needs and their separated or divorced parents.

Custody and Visitation

Some states and the professional literature have begun to use terms such as *parenting plan* or *parental rights and responsibilities*, but the majority of legal and scientific literatures use the term *custody* when addressing the resolution of decision making, caretaking, and disputes (American Law Institute, 2000). The bases on which physical and legal custody are determined has varied enormously over the years, depending on the cultural and societal values and attitudes in existence at a given time. Initially, fathers had absolute rights over their children, who were viewed as property. The emphasis then shifted in the late 19th and early 20th centuries to consideration of the "best interests of the child," with the presumption that mothers were the appropriate custodians for young children and for girls of any age. Custody of adolescent boys was often awarded to their fathers.

Currently, the emphases in determining custody continue to be on the best interests of the child, but without a presumption that either parent is the better caretaker (Drozd, Saini, Olesen, 2016; Emery, 2012). Unfortunately, most states do not provide adequate guidelines for determining the child's best interests, and if a case goes to court, considerable discretion is left in the hands of judges. While there are no definitive guidelines regarding "the best interests of the child," a child-focused approach requires consideration of a number of factors, including (1) child factors (developmental stage, physical and psychological functioning, resilience and adaptability, individual needs and preferences regarding custody), (2) parent factors (physical and psychological functioning, history of meeting the child's needs, and current capacity to meet these needs), (3) environmental factors (characteristics of the environment and resources offered by each parent), and (4) relationship factors (relationships of the child with each parent and other important persons, such as siblings, grandparents) (Drozd et al., 2016).

Most parents (90%) decide a child custody arrangement on their own (Melton, Petrila, Poythress, & Slobogin, 2007), and the use of mediation and custody evaluations is effective in preventing the majority of disputed custody cases from going to trial (Emery, 2012). Furthermore, there is strong evidence that mediation keeps the focus on the child, decreases co-parenting conflict, increases nonresident parent contact/involvement in the child's life, and improves parenting skills (see Emery, 2012, for review). There has been a shift to more scientifically informed "expert" professionals dealing with these issues, and clinicians doing this work should have a sound understanding of the scientific, professional, and legal literature. A lengthy discussion of methods used in conducting mediation or custody evaluations is beyond the scope of this chapter; the reader is referred to Drozd et al. (2016) and Kuehnle and Drozd (2012), who summarize the applied research that can be used in custody evaluations and the family court (including relocation cases in which one parent wants to relocate to a distant place or another country), and to Emery (2012), who covers issues in divorce and mediation. Also, the American Psychological Association (2010) provides guidelines for conducting child custody evaluations.

From the child's point of view, legal custody is far less important than physical custody and visitation arrangements. Increasingly, parents and the legal community consider joint legal and physical custody, often called *shared time,* as a viable and even desirable option for divorcing families. The quality of research on shared time varies (definition, different designs, sampling strategies) so it is difficult to distill the research into a definitive set of guidelines (Smyth, McIntosh, Emery, & Higgs Hogarth, 2016). It is important to note that most (if not all) of the studies of joint physical custody (about one-third of the studies use a 50–50 time split definition; other studies use a time split between 30 and 65%) have involved parents who have chosen this arrangement and are committed to making it work. Thus, these parents represent a very different population than those with sole custody arrangements. Critics of shared physical custody focus on presumed damage that children experience if they are prevented from forming and maintaining a close attachment based on the day-to-day care of one parent (usually the mother) and on the transitions between households (like ping-pong balls), which were seen as confusing (Felner & Terre, 1987). Research does not support these claims for typical children and parents (Fabricius, Sokol, Diaz, & Braver, 2012; Laumann-Billings & Emery, 2000; Lee, 2002). A meta-analysis of 33 studies found that in joint physical custody, children were better adjusted on multiple measures, including emotional and behavioral adjustment and academic achievement compared to children in limited sole custody arrangements (Bauserman, 2002). Buchanan, Maccoby and Dornbusch (1991) reported a "drift" away from dual residence to primarily maternal care over time, but a more recent study indicated that 3 years after divorce, the shared physical arrangements were as stable as sole mother-custody arrangements (Berger, Brown, Joung, Melli, & Wimer, 2008). Changes are more likely to take place with older children (adolescents), who prefer primary care arrangements (Kaspiew et al., 2009).

Over the past two decades, an extensive body of research demonstrates the advantages of having two involved parents, so the focus in any living arrangement should be on maintaining continuity in children's relationships with both caring parents (e.g., Emery, 2011; Lamb, 2016; Parkinson, 2011). Unfortunately, research indicates that children spend about 10–20% of their time with fathers (Amato, Meyers, & Emery, 2009; Parkinson, 2011). The "usual" or "standard" 4 nights a month and brief midweek visit do not allow fathers to be involved in the child's everyday life, leading to a deterioration in father–child relationships over time, and sadness, longing, and a sense of deprivation among children (e.g., Fabricius, Braver, Diaz, & Velez, 2010). Physical arrangements pose different challenges at different developmental stages, and there is disagreement about parenting plans that involve overnights for infants and toddlers in the first 2 years of life. Two relatively recent studies indicate that infants (age 0–1 year) who spent overnights with a nonresident parent had more attachment insecurity and emotional dysregulation (McIntosh, Smyth, & Keleher, 2010; Tornello et al., 2013), while other research asserts that children are not only capable of adjusting to overnights with both parents but also benefit from the experience (Pruett, Deutsch, & Drozd, 2016; Warshak, 2014). Tornello et al. (2013) found that the quality of the mother–child relationship with young children is the strongest predictor of adjustment, not the time share arrangement. Maternal depression, parental conflict, socioeconomic status, and child factors also affected the well-being of these young children. Lamb (2016) reviewed research that indicates the benefits to children age 3 years and younger of increasing the amount of time with the nonresident parent, so it minimizes the length of separations and suggests no more than 2–3 days' separation from the nonresident parent. As they get older, children are better able to tolerate more extended separations. Given the vulnerability of this age group, it is important to proceed with caution in making recommendations for or against overnight visits.

In summary, if both parents have cared for a child, even an infant, and provide a consistently responsive, safe, and secure environment, there is strong support for regular weekly overnights for children of all ages that allow both parents to be involved in the child's daily life (Cashmore, Parkinson, & Taylor, 2008; King & Sobolewski, 2006; Lamb, 2016; Maher et al., 2016; Pruett, Cowan, et al., 2016). Child and parent schedules determine the best schedule but in our experience, schedules can be developed (even in high-conflict families) that allow children to have both parents involved in their lives (e.g., Wednesday after school to Thursday or Friday school time plus every other Friday after school to Monday school time).

Research examining the influence of mother versus father custody is sparse, most likely reflecting the lack of father-custody households. It is estimated that 17.8% of fathers have primary physical custody of their children (Grall, 2013). A study by Clarke-Stewart and Hayward (1996) makes a strong case for awarding custody to fathers, at least in some cases. They found that children (especially boys) in father-custody households did significantly better on various measures of psychological functioning than did those in their mothers' custody. Interestingly, these differences were maintained even when family income, contact with the noncustodial parent, and psychological adjustment of the custodial parent were controlled. Clarke-Stewart and Hayward (1996) suggest that their custodial fathers had several advantages over the custodial mothers, such as higher incomes, fewer children to care for, and more available emotional support from friends and family members. Furthermore, they were self-selected custodial parents, as opposed to having been assigned by the courts to provide custody for their children. An added benefit for these children living with their fathers was that they also maintained a close relationship with their noncustodial mothers, who made a considerable effort to remain part of their children's lives.

Individual circumstances should be examined to ensure that the arrangements made are sensitive to the parent and child strengths, schedules, and needs (Kelly, 2005, 2007; Smyth & Chisholm, 2006). For example, while the majority of children and adolescents want to maintain a meaningful relationship with their noncustodial parent, a small minority do not want contact with the nonresident parent, often appropriately. Experiences of parental child abuse, parent violence, substance abuse, estrangement and child alienation, and rigid and insensitive parenting practices with either parent are likely to result in no contact, supervised visits, or very limited contact and distancing from the parent over time (Hardesty, Haselschwerdt, & Johnson, 2012; Johnston, 2008; Kelly & Johnston, 2001; Saini, Johnston, Fidler, & Bala, 2012).

It is also important to note that when there is high parental conflict, it is often felt that joint physical and legal custody will only increase the conflict. The evidence to support this is at best limited (see Birnbaum & Bala, 2010). Any rule that automatically reduces contact with one parent or eliminates a parent from future decision making is problematic. It provides incentive to act and remain angry as a legal strategy, discourages cooperation or civil communication, may eliminate an involved loving parent (who may be less angry), and does not take into account important protective buffers (involved and nurturing fathers) that shield children from the negative effects of conflict (Fabricius et al., 2012; Lamb, 2016).

Finding the best custodial arrangement is complex. Research over several decades consistently supports the findings that the psychological health of the parents and the quality of parent–child relationships are the best predictors of a child's positive adjustment (see Amato, 2010; Drozd et al., 2016; Kelly, 2012). Mothers and fathers provide different advantages and disadvantages to their children. Father involvement plays an active role in promoting children's self-sufficiency, problem solving, frustration tolerance, and cognitive competence and achievement, as well as fostering self-control, which is especially important in vulnerable environments such as violent neighborhoods (DelPriore & Hill, 2013; Pruett, Cowan, et al., 2016; Pruett, McIntosh, & Kelly, 2014). Mothers tend to regulate and soothe, helping their young children manage challenges while feeling cared for and protected (Pruett & Pruett, 2009). They also facilitate communication, self-disclosure, and supervision (Hetherington et al., 1998). Thus, the presumption that any one custodial arrangement is inherently best for children is misguided and does not reflect the very real differences among families and the needs of individual children.

ASSESSMENT OF DIVORCE-RELATED ISSUES

Taken together, the research on children's adjustment to divorce provides useful guidelines for clinicians, but it indicates clearly that the circumstances and needs of individual children and families must be carefully assessed in order to provide appropriate advice and treatment. Divorce is inevitably a difficult and painful process for children, no matter what their age, and parents can expect a period of adjustment, which can last 2 years after the separation. The assessment should focus on child and family development, coping skills and adjustment, and the factors centrally related to the child's ability to adapt (summarized in Table 13.1).

TABLE 13.1. Factors That Mediate Children's Adjustment to Parental Divorce

Area of risk	Risk/protective factor
Characteristics of the child	• Temperament: easy (protective) vs. difficult (risk) • Age (adolescents have more difficulty) • Gender (boys have poorer adjustment, especially when father is absent) • Race (adjustment is problematic for African American boys) • Preexisting behavioral or emotional problems (risk) • Higher intelligence/better academic skills (protective) • Active coping strategies (protective)

Characteristics of the parents	• Quality of parenting, especially for custodial parent (all factors below are protective): ◦ Warmth and support ◦ Ability to monitor child's activities ◦ Consistency of control/supervision ◦ Responsiveness to child's needs ◦ Ability to communicate clearly, especially about feelings • Quality of involvement of noncustodial parent: good (protective) vs. poor (risk) • Level and nature of parental conflict (all factors below are risks): ◦ Child's being caught in the middle ◦ Exposure of child to conflict ◦ Violence or abuse • Presence of psychopathology (risk) • High levels of stress (risk) • Isolation, lack of social support (risk) • Coping skills, ability to deal with stress (protective)
Characteristics of the environment	• Adequate financial resources (protective; note that these tend to decrease more for mothers than for fathers) • Employment status, stability (protective) • Divorce-related transitions—move to new home, neighborhood, school (risk) • Quality of sibling relations: good (protective) vs. poor (risk) • Support from external family (protective) • Remarriage (varies; see text)

The assessment process outlined here sets the stage for intervention and is not designed for determining custody in the legal sense. However, careful attention to the assessment process and the information gathered therein can provide the clinician with the tools necessary to help parents make good decisions regarding their child's well-being. The process outlined here follows the Comprehensive Assessment-to-Intervention System (CAIS) described in Chapter 2, with an emphasis on those issues most related to divorce.

Step 1: Initial Contact

To keep the focus on the best interests of the child (or children), it is important to include both parents in the initial interview. This arrangement gives each parent the opportunity to share his or her views and concerns, and the clinician can more readily clarify the appropriate focus of the clinical contact. Furthermore, neither parent is seen as having "an advantage" with the clinician, and the final recommendations are more likely to be seen as impartial. The parent who calls for the initial interview often wants to give the clinician his or her view of the problem on the telephone, or initially to see the clinician alone. Thus, the clinician must clarify quickly how he or she proceeds with issues of separation or divorce and what services he or she can offer (e.g., setting the stage for telling the child of an impending separation, providing information on children's reactions to separation, assisting in determination of living arrangements, providing treatment for families and children of separated or divorced families). If parents want a custody evaluation for the court and the clinician does not offer this service, the parents should immediately be referred to an appropriate resource.

Having each parent complete a questionnaire (e.g., our General Parent Questionnaire; see Appendix B) that provides demographic information, as well as information on the reason for seeking help and his or her perceptions of the problem, gives the clinician important information for the initial interview. In addition, each parent can complete the Child Behavior Checklist (CBCL; Achenbach, 2013; Achenbach & Rescorla, 2001a, 2001b) or the Behavior Assessment System for Children, Third Edition (BASC-3; Reynolds & Kamphaus, 2015), and/or the Eyberg Child Behavior Inventory (ECBI; Eyberg & Pincus, 1999). Parents of children under age 12 years can also complete the Parenting Stress Index, Fourth Edition (PSI-4; Abidin, 2012), and for parents of children over 12 years, the Stress Index for Parents of Adolescents (SIPA; Sheras, Abidin, & Konold, 1998) to provide information about the marital/couple relationship, parental depression, child temperament, and life stresses. In addition, the Parenting Alliance Inventory (PAI; Abidin & Brunner, 1995; Abidin & Konold, 1999), can be used to assess aspects of the marital/couple relationship most specifically related to parenthood and child rearing. These instruments cover a child's overall emotional and behavioral status, involvement in activities, temperament, and compliance with daily routines, as well as parents' stress level. Fathers and mothers do not always have the same view of their child's behavior, and in the case of a separation, this information is especially important as a starting point in assessing each parent's relationship with their child. The Child's Risk Index for Divorced or Separated Families (CRI-DS; Tein, Sandler, Braver, & Wolchik, 2013) is a brief 15-item mother-report questionnaire that is predictive of a wide range of children's problem outcomes over time (up to 6 years). While it does not provide sufficient data on specific concerns/problems, it can be used as an initial screen to be followed up with specific questionnaires (e.g., CBCL, ECBI, PSI-4) and a more in-depth interview about parental concerns. Furthermore, it may be helpful in identifying families that would most benefit from preventive programs following divorce.

Reviewing these questionnaires prior to the initial interview gives the clinician information on the potential problems or issues for the family. We have found that parents are increasingly seeking help prior to separation; this is ideal, because it allows the clinician to provide information and guidance that have the potential to greatly decrease both the immediate and long-term adverse effects of the separation and divorce on the child.

Step 2: Initial Intake Interview

Parent Interview

The setting for the interview with parents is very important. Primarily, it should provide parents the opportunity to sit apart from each other. Because the clinician has already gathered a lot of information from both parents, it is good to begin the interview by summarizing the clinician's understanding of the reason for the session and asking both parents to clarify this information, as well as what they hope to receive from the contact. The clinician should also let the parents know what he or she feels can be accomplished in the first session. Any conflict around these points can be dealt with immediately. After both parents have expressed their concerns, it is important to gather information about the following areas, particular to divorcing families:

1. *Living arrangements*. Where is each parent currently living? How is the child's time spent with each parent? How is this working? Are there plans to change the living arrangements? If so, when will these changes occur? These issues can be sources of conflict between the parents, and getting their views on what they want and why they think a particular arrangement is or is not appropriate is important. It also enables the clinician to determine whether the focus is primarily on the child's or the parents' needs.

2. *Reasons for the separation*. The reasons and events leading up to the decision to separate are very important in determining the past, current, and potential future level of conflict. Each parent's view of these events and his or her reaction to them gives information on the emotional atmosphere surrounding the separation, as well as on how each parent is likely to share this information with the child.

3. *What does the child know?* What the child knows or has been explicitly told about the separation is crucial to understanding how he or she is adjusting or will adjust. Parents sometimes think that a child does not have any idea that a separation is being considered, and others who are already separated have never given a full explanation, because they feel the child "already knows" or will not understand. If there is more than one child in the family, have the parents shared information with some of the children but not with others?

4. *Who knows about the separation*? Who the parents have told about the separation, and how these people have reacted, are important in terms of the support both parents feel they have for making this decision. These people in turn have an influence on the child's perception of the separation. Will the child be able to rely on them for support? Is there a chance that the child will lose contact with particular extended family members?

5. *Lawyers*. It is helpful to know how far the parents have gone in the legal process and who their lawyers are. This may have a direct bearing on the current and future

level of conflict.

6. *Financial arrangements.* The current financial resources of the family, and the ways these will be divided or changed, are crucial to understanding the child's adjustment to separation and divorce; financial arrangements are often a significant source of stress and conflict for divorced parents, and such conflict usually affects the child as well. The clinician should determine whether a child will have to change schools (e.g., from private to public) or decrease activities due to the changing financial situation. It is also important to know whether one or both parents are using or have used the issue of child custody or visitation as a threat or bargaining factor in determining property settlement, alimony, or child support.

7. *Conflict between parents.* On the basis of the parents' interaction in the interview, the clinician should be able to make some judgment about their level of conflict and how they are handling this with the child. Finding out when and how they talk about their own personal issues sheds light on the extent to which the child is exposed to parental conflict and the effects of the conflict on him or her. The PSI-4 gives information on the level of stress each parent is experiencing. Further exploration of this information, however, is best left to a future individual session with each parent, if necessary.

8. *Perception of child's adjustment.* Parents should be asked how they think their child is adjusting to the separation and/or what problems they perceive in adjustment. They should also be asked what they think would help the child adjust better to the realities of the separation. Do they feel that their interactions with their child have changed since the separation or divorce? Again, gathering specific information on the parent–child relationships, the child's daily routines, parenting styles, and discipline techniques is usually best left to future interviews with both parents together or separately.

Child Interview

The child (or children) is almost always seen in a separate session from the parents, although the interview should begin with the child and one or both parents present to clarify the reason for the contact and to indicate how the information gathered from the child will or will not be used. A child should know the limits of confidentiality. If information is to be shared, the child is informed that he or she will first be told what, why, and with whom something will need to be shared. To this end, it is best not to talk to parents immediately after seeing the child; rather, they should be seen at a separate time, or concerns should be discussed by telephone. Furthermore, the child should be told that he or she has a choice about sharing information from the sessions with the parents, and that he or she also has permission not to talk about the sessions. Saying these things to the child in the presence of the parents is important, because children of separated parents often feel pulled between their mothers and fathers; some parents have been known to pressure children to divulge the content of their sessions with the clinician in order to gain “ammunition” to use in divorce proceedings.

The child should be told the clinician’s general understanding of the family situation. It is also important to let the child know that the clinician has seen other children whose parents are separated, and that this can be a difficult time for everyone. As in other child interviews, the clinician should discuss with the child what to expect in the session (e.g., “Today I would like to hear about your school, your dance classes, and what you like to do. I’m also going to ask you some questions that will help me better understand your likes, dislikes, and feeling about things. We should also have time to play a game, if you like”). For preschool children, the focus is more on gathering information through play or drawing activities, but it is equally important to let them know what to expect. Specific information gathered during this session includes (1) the child’s general level of coping, (2) his or her perception of why the parents separated, (3) the child’s understanding of what is happening or going to happen with regard to living arrangements, (4) the child’s feelings about the living arrangements, and (5) his or her worries or concerns about the separation and/or its effects on his or her life.

Step 3: Observation of Behavior

Direct observation of each parent’s interaction with each child (and, if there is more than one child, all the children together) helps provide more information about the parent–child relationship. For example, a 5- to 10-minute observation of each parent and the child (children) planning a trip or solving a simple problem (e.g., what movie to see) can provide very useful insight. A home visit is often an important and necessary way to gather data about the child’s environment and family interactions. During this visit, the specific focus should be on parent–child communication: For example, does the parent attend or listen to the child? How is information shared with the child? What kind of feedback is given to the child? And, likewise, how does the child interact with and respond to the parent? The clinician should determine whether current interactions are similar to those prior to the separation.

Step 4: Further Assessment

More comprehensive assessment depends on the nature of the questions being asked and the presenting problems or associated problems of the child(ren) or parents. This could involve formal psychoeducational assessment and/or further assessment of a child’s emotional and social status. Problems present prior to the separation are certain to be exacerbated with the stress of separation, and further assessment of these issues may be indicated.

The assessment process for questions surrounding separation or divorce usually involves at least one or two individual session(s) with each parent and several sessions with the child (or children) in question. The parent interviews should focus on their emotional status, social support network, stressors, and parenting ability.

Step 5: Collaboration with Other Health Care Professionals

Parents who have significant psychological problems, or who are in great distress over the separation or divorce, should be referred to an appropriate professional for treatment. If the parents are having difficulty resolving their conflict, they should be referred for joint counseling or divorce mediation sessions. The clinician should also be aware of divorce groups for children in the community (e.g., school, YMCA), because these can be very helpful in answering questions and providing support.

Step 6: Communication of Findings and Treatment Recommendations

Before the findings of the evaluation can be communicated to parents and other professionals and discussions regarding living arrangements, visitation, and/or intervention occur, the data gathered from multiple sources during the assessment must be integrated. This is particularly important in cases of divorce, as parents and others are likely to have very different perspectives on the child's needs and characteristics. The first step in this process is to review the data in an unbiased manner, keeping in mind the factors that are known to be important in the long-term health of children experiencing parental separation or divorce. Table 13.1 summarizes these factors. Most important is the parents' ability to support one another in co-parenting the child, including the extent to which they are able to protect the child from their own disputes and reinforce the other parent's relationship with the child. A second critical factor to consider is the parents' understanding of each child's unique strengths and weaknesses, and their abilities to meet the child's needs even when doing so might be inconsistent with their own needs and desires. The clinician should be familiar with resources in the community; that is, it does not help to recommend parent or child groups or extracurricular activities if they are not available in the community, or recommend mediation without referral options.

The assessment findings and recommendations should be communicated to both parents at the same time. Information about children's adjustment to divorce, and especially the effects of ongoing parental conflict and the quality of the child's relationship with both parents, should be shared with the parents. This information provides a basis for ensuring the cooperation of both parents with the proposed treatment plan. If lawyers are involved, they should be given the same information (with appropriate releases), with or without the parents present. Enough time should be allowed to answer the parents' questions, and they should be given an opportunity to meet individually with the clinician after a joint feedback conference.

TREATMENT OF DIVORCE-RELATED ISSUES

The breakup of a family is always difficult, and the task of the clinician is to help parents and children deal effectively with this painful process. In many ways, helping children deal with a divorce is like helping them deal with death (see Chapter 14), and as with death, there is an inevitable grieving process that must culminate in accepting the situation and learning to live with the life changes. This work is often preventive in nature; it involves offering information and advice on the factors affecting adjustment, as well as helping parents and children develop the skills necessary to cope with the changes in their lives.

Given the individuality of each family's situation and needs, the focus of treatment varies from family to family. Various intervention strategies are discussed here in the context of the CAIS (see Chapter 2). The reader is referred to Greenberg and Lebow (2016) for reviews of intervention approaches as well as an outline, *Elements of Systematic Intervention Planning*, that is helpful in planning intervention strategies. *Step-up planning* (a family law vernacular) occurs when one parent, usually the non-resident parent, requests an increase in access to a child (e.g., more overnights or supervised to unrestricted access). Determining whether the request is in the child's best interest and developmentally appropriate can be difficult and requires careful planning and monitoring (Pruett, Cowan, et al., 2016). Pruett et al. provide a detailed outline of how to consider the potential risks and benefits to the child and how to put into place the resources and supports the family will need to make the step-up plan successful.

Intervention with the Child

What to Tell a Child

Research indicates that various interventions are effective in preventing adjustment problems among children whose parents have separated or divorced (e.g., Cummings & Davies, 2010; Emery, 2012; Greenberg & Lebow, 2016; Johnston et al., 2009). A primary strategy is to provide or to help parents provide their child with honest information about the separation and divorce that is appropriate to the child's developmental level. Children can usually cope with the truth but are not able to manage secrets. Although a child's age and ability level, as well as the family circumstances, will determine the specifics of this information, some general principles cut across all ages and circumstances. If possible, the child should be told by both parents a few days before the actual separation occurs. This allows the child to work through some feelings and reactions before the separation takes place. Preschool children are not able to appreciate future events as well as older children, so they are more likely to understand what is happening only after the separation actually occurs. Having both parents tell a child communicates the fact that this is a joint decision. Moreover, it decreases the likelihood that the child will take sides and lets the child know that both parents will continue to be available after the separation (if this is true). Parents will be understandably upset during this time; although their emotional reactions should not detract from the specific information shared, they should be honest about their feelings. The expression of emotions (even crying) can facilitate the child's expression of his or her own feelings. The expression of rage or uncontrolled anger by parents is not helpful, however, as this makes it more difficult for the child to feel free to express his or her feelings of sadness or anger.

Children have wonderful imaginations, and their fantasies can often be more frightening than the truth about the separation. Thus, it is important for them to know generally the causes for the separation, so they can deal with the facts yet continue to trust their parents. The details of the causes of the separation do not have to be shared, because children are likely to obsess over details, but the major causes should be addressed. For example, if the mother is in love with another man, this should be stated; however, giving the details of the relationship (when they met or why she loves him) is not needed or helpful. Specifically telling children that nothing they did, said, or thought had anything to do with the separation is important, because a common response of children is to assume that it is their fault. Similarly, children need reassurance that they will always have a home, be cared for, and be loved. It is also helpful for a child to know that the parents have told or will tell significant people in the child's life (e.g., relatives, neighbors, and teachers) about the separation. This relieves the child of the burden of telling these people and allows the child to seek support from them.

Children need to know specifically what is going to happen in the days immediately following the separation, what their living situation will be, when they will see both parents, and what will be expected of them. Even if there is some uncertainty about these arrangements, what is known should be shared with the child. Children should be told that these are things that the parents will take care of, and that they will share information as soon as decisions have been made. Being able to ask questions as often as necessary, and to get specific information, is an important way for children to begin to cope with this major disruption in their lives. Honest answers from parents allow a child to begin to trust that the parents will look after his or her needs and continue to care for him or her.

It is often hard for children to understand that other families or children have felt the way they do, or to believe that they will ever be happy again. Thus, the opportunity to talk with other children whose parents have separated, or to hear that other children have experienced separation, allows them to begin thinking creatively about their own situation and ways in which they can help themselves. Therapeutic groups in schools or the community, which allow children to identify with peers in similar circumstances, are a way to help mitigate the behavioral and emotional problems that are often the sequelae of separation or divorce.

Intervention Approaches

There is some empirical support for the effectiveness of group intervention programs in schools for children in kindergarten to sixth grade (e.g., Pedro-Carroll, 2005; Pedro-Carroll, Nakhnikian, & Montes, 2001). Pedro-Carroll and colleagues' groups are structured to meet the developmental needs of younger or older children. They emphasize a supportive environment to help children identify and express divorce-related feelings, clarify divorce-related issues and misconceptions, develop relevant coping skills, and promote positive perceptions of self and family. Children who participated in such groups evidenced fewer adjustment problems than did those who did not participate. Moreover, the beneficial effects on adjustment were maintained over a 2-year period. Groups that met once a week over a period of 4 months proved to be more effective than those that met twice a week for 2 months. Group treatment also provides a setting in which children can begin to deal with negative stereotyping by peers, which has been found to occur (Hoffman & Avila, 1998).

King (2001) describes a similar focus for individual treatment, with an emphasis on providing a safe and supportive environment for a child to grieve openly, express fears, feel free to express rage and anger at both parents, then to begin learning skills to cope with the situation. Greenberg and Lebow's (2016) systematic intervention strategies take into account the child's developmental needs, routines, and involvement in extracurricular activities and school that support the child in developing positive relationships. These activities focus on helping the child learn to modulate affect, identify and express feelings, ask for help, differentiate his or her feelings from those of others, follow rules, tolerate imperfections in others, and gain an understanding of other people as complex individuals with strengths and weaknesses. This requires parents to maintain adequate parenting that allows the child to participate in their regular routines and activities, which in turn allows the child to have strong relationships with both parents (Greenberg & Lebow, 2016).

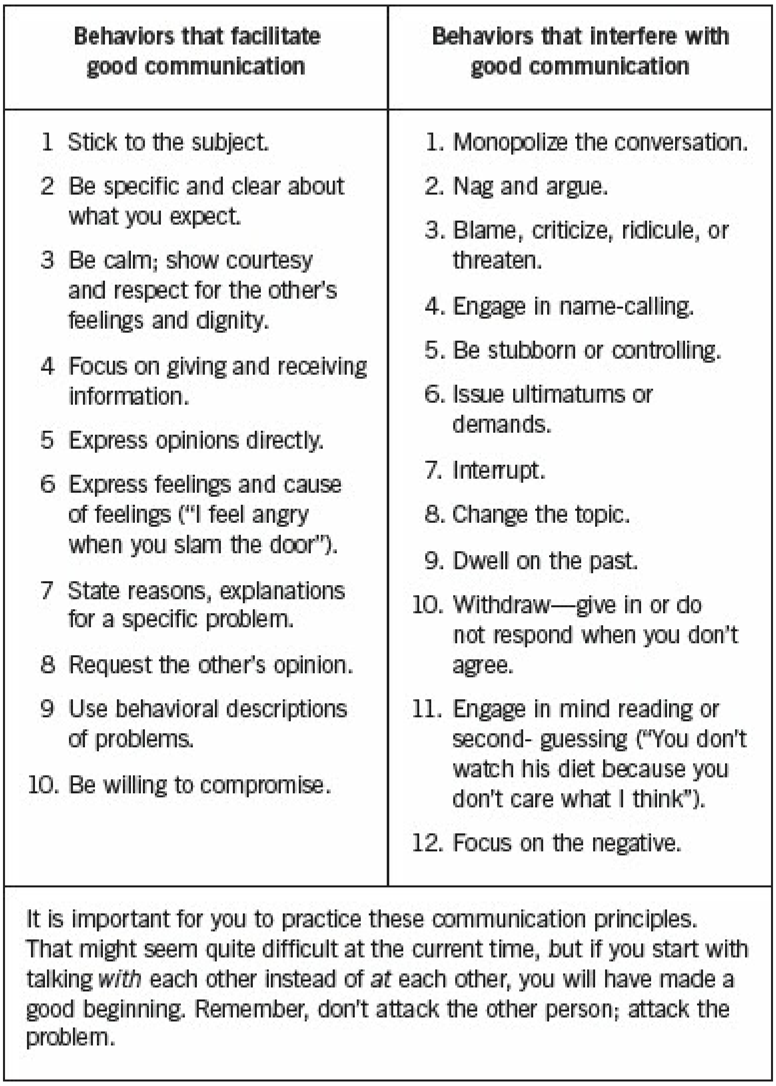
Bibliotherapy is another widely used intervention strategy; there are many books that identify divorce-related feelings, issues, and coping skills for children. Any books that are recommended should first have been read and approved by the clinician (see recommended books at the end of chapter).

Intervention with the Parents

What Parents Need to Know

The role of the clinician in cases involving marital separation is to be an advocate for the child (or children). It is important that the clinician not be viewed as "taking sides" with one parent or the other, but rather as sharing information and advice related to the best interests of the child. Parents need information about how divorce may affect their child, as well as help in determining how best to minimize the negative effects. Although parents can be supported in their own feelings about the dissolution of their marriage, they must also understand what their child(ren) will need in order to adjust to the situation. Most importantly, although a child may have been exposed to parental conflict before the separation, it is critical for parents to understand the deleterious effects of continued conflict on the child and the need to protect him or her from parental arguments. Moreover, as we indicated in the research described previously, successful and positive resolution of parental disagreements can help children cope (Cummings & Davies, 2010; Greenberg & Lebow, 2016). This often involves the use of great self-control and self-sacrifice on the part of parents, and they will need support to respond appropriately. Some parents may need individual treatment to accomplish this. Figure 13.1 is a handout to help parents communicate more effectively and with less conflict about child-related issues.

Guidelines for Communication between Parents



Behaviors that facilitate good communication	Behaviors that interfere with good communication
1 Stick to the subject.	1. Monopolize the conversation.
2 Be specific and clear about what you expect.	2. Nag and argue.
3 Be calm; show courtesy and respect for the other's feelings and dignity.	3. Blame, criticize, ridicule, or threaten.
4 Focus on giving and receiving information.	4. Engage in name-calling.
5 Express opinions directly.	5. Be stubborn or controlling.
6 Express feelings and cause of feelings ("I feel angry when you slam the door").	6. Issue ultimatums or demands.
7 State reasons, explanations for a specific problem.	7. Interrupt.
8 Request the other's opinion.	8. Change the topic.
9 Use behavioral descriptions of problems.	9. Dwell on the past.
10. Be willing to compromise.	10. Withdraw—give in or do not respond when you don't agree.
	11. Engage in mind reading or second- guessing ("You don't watch his diet because you don't care what I think").
	12. Focus on the negative.

It is important for you to practice these communication principles. That might seem quite difficult at the current time, but if you start with talking *with* each other instead of *at* each other, you will have made a good beginning. Remember, don't attack the other person; attack the problem.

FIGURE 13.1. Parent handout on guidelines for communication between parents.

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An emotionally supportive environment, with clearly established rules and consistent routines, sets the stage for children to become increasingly competent and independent. It is therefore important for parents to maintain expectations for their children's behavior and continue to set limits for inappropriate behavior. Changing the expectations and consequences for appropriate and inappropriate behavior when the family is itself changing can create feelings of insecurity among children and decrease their ability to cope effectively with the situation. Children are likely to express many of their concerns and worries through inappropriate behavior or emotional lability. Thus, it is important for parents to acknowledge a child's feelings at the same time that they put limits on a behavior ("I know that you want to help me, but as the parent, I am the one who will discipline your younger brother," or "I can understand that you might be angry with Mom for being late, but you may not hit your sister").

Each parent must learn to be responsible for his or her own relationship with the child, and even if one parent cannot support the child's relationship with the other parent, he or she should not criticize or condemn that parent. To do so only places the child in a conflicted situation. Similarly, a mother or father does not have to defend or excuse a parent who is unreliable or irresponsible. Rather, the child should learn to express his or her angry or hurt feelings when disappointed by that parent.

Parents often must be encouraged to establish new social support systems that enable them to meet their own personal needs. It is very detrimental to children when parents rely on them for this support. Children should not be responsible for taking care of parents, and parents should learn to separate their own needs from those of their child.

The psychosocial issues involved in divorce are not unlike other psychosocial problems, and parents and/or children should feel that the clinician will be available if a problem/crisis arises now or in the future. The ultimate goal is for the parents to help the child cope effectively over time.

Parent Groups and Bibliotherapy

The evidence-based Supporting Father Involvement (SFI) program was developed for married and unmarried partners across racial and socio-economic lines, but can be extended for separating partners (Pruett, Cowan, et al., 2016). The model includes fathers-only, co-parenting, and couple groups. Although the focus is on parents, the research supports its beneficial effects on children (Cowan, Cowan, Pruett, & Pruett, 2006; Cowan, Cowan, Pruett, Pruett, & Gillette, 2014; Cowan, Cowan, Pruett, Pruett, & Wong, 2009). The 16-week (32 hours) groups are for parents with children ages 0–11 years and are co-led by a male and female clinician team. It uses a manualized approach, with opportunities for unstructured discussion, direct teaching, and exercises regarding specific topics. The SFI intervention targets multiple aspects of family life: encouraging positive father involvement, helping both parents develop skills and resources to have healthier family relationships, co-parenting, three-generation transmission of behaviors, reducing abusive and/or neglectful behavior, and balancing life stresses with adequate social support (Greenberg & Lebow, 2016). Triple P (the positive parenting program) also has well-documented group and individual components for divorcing families (see Chapter 1; Wiggins, Sofronoff, & Sanders, 2009).

Shifflet and Cummings (1999) described a two-session preventive educational program for parents, the content of which was based on their review of the literature on the effects of divorce on children. Specifically, they targeted (1) educating parents about the effects of parental conflict and divorce in general on children, (2) teaching parents to handle conflict more constructively, and (3) parental satisfaction with the program.

Important components were the provision of child care services and a parallel program for children. Evaluation of the efficacy of the program, using a wait-list control group, an alternative treatment (general parenting information) group, and pre–post measures, indicated that the program was effective in increasing parental knowledge and decreasing conflict behavior over time. Changes were maintained over a 2-month follow-up period. Changes in spousal behavior (although spouses were not included in the treatment groups) were noted after 2 months. Consumer satisfaction was high.

Bibliotherapy as an adjunct to treatment of divorce-related problems is very useful for parents, as well as for children. In addition to the books for children, the several excellent books for parents provide information on living arrangements, strategies for resolving conflicts, and so on (see recommended books in resource section).

Intervention in the Environment

Familiar surroundings can help a child utilize established social support systems to begin coping with the separation (King, 2001; Pruett, Cowan, et al., 2016). Thus, if at all possible, the added stress of changing homes, schools, neighborhoods, and caregivers should be avoided. Likewise, daily routines, activities, chores, and expectations should be kept as normal as possible. This minimizes the stress on the child and allows him or her to learn what parts of life will remain the same and what parts will be different. The routines and extracurricular activities also allow the child to develop the social skills necessary for positive relationships.

Visitation schedules and living arrangements should take into account the child's developmental level and need for both stability and an ongoing relationship with both parents. Preschool children need environmental stability because of the challenges of developing independence and a sense of mastery and control; school-age children need stability because they are beginning to move out into the world and experience the stresses of meeting social and academic challenges. When parents have both been involved in a child's care and can provide safe, secure environments, then overnights at any age should be a viable option; the nonresident parent and child need sufficient time to develop/maintain an involved relationship. For example, if appropriate, children ages 0–2 years will need contact/overnights a minimum of every 2–3 days; preschoolers and older children can tolerate longer times between visits but can benefit from regular midweek overnights (one or two) and 3-night weekends; and adolescents usually want more flexible arrangements that may involve a primary residence. Each family situation is unique, however, and a careful review of how a particular arrangement will meet a child's needs *apart from those of the parents* is an important part of the treatment process.

Introducing to the child the new significant people in the parents' lives is usually an inevitable part of the divorce process. Young children often resent sharing the time they spend with a parent; or, if they like the new person, they may feel that they are being disloyal to the other parent. For these reasons, it is often best to allow the child to establish a relationship alone with each parent before including new people in shared activities. It is, however, important for children to understand that their parents have lives separate from them.

Intervention in Medical/Health Aspects

Children whose parents are separating may have increased psychosomatic complaints; they may state, for example, that they do not feel well enough to go to school, or that they are afraid to sleep alone. Although it is important to have a physician attend to these physical complaints, it is often the case that such children are worried or upset about what is happening in the family. These complaints usually decrease if children learn to identify and communicate openly about their feelings and anxieties.

CASE EXAMPLE: RECOMMENDATIONS FOR A CHILD'S LIVING SITUATION

Step 1: Initial Contact

Mr. May, a city councilman and town businessman, requested an interview to discuss the current living arrangements of his 10-year-old daughter, Sarah. He stated that he was concerned that his former wife's emotional instability was having negative effects on Sarah, and that child protective services (CPS) had investigated the mother on charges of neglect (initiated by Sarah's teacher). Sarah had been living with her mother since the parents separated 10 months earlier. In clarifying the referral question ("What is the best living arrangement for Sarah?"), the clinician indicated that the mother should be involved in this process and that, if at all possible, she should be present at the initial interview. The father agreed to tell the mother about his contact with the clinician and to request her attendance at the interview.

When the father called back to confirm that the mother would be coming, the General Parent Questionnaire, the ECBI, and the CBCL were sent to both parents. The responses to the ECBI and CBCL indicated that both parents perceived Sarah to be a rather withdrawn and quiet child who was experiencing high levels of anxiety. The General Parent Questionnaire responses indicated that legal custody had not yet been finalized, and that neither parent had consulted a lawyer. Ms. May was concerned that Sarah, as an only child, was "overly close" to her and worried too much about her mother's well-being. Mr. May felt that Sarah's problems centered around her mother, who had been diagnosed with depression and alcohol dependence. He also indicated that the mother used Sarah's visits with him as a weapon to vent her anger toward him. Sarah was living primarily with her mother; although there was no visitation schedule with her father, he saw Sarah approximately every other weekend. He was currently living with another woman who had joint physical custody of her two boys, ages 6 and 9.

Step 2: Initial Intake Interview

Parent Interview

The parents arrived separately for the session, and it was apparent in the waiting room that there was a great deal of tension and hostility between them. Mr. May rarely made eye contact with Ms. May, and she talked about Mr. May as though he were not present. Mr. May stated that he had left the marriage because his wife's drinking had destroyed their relationship. He clearly stated that his current relationship with another woman had begun several months after he had left the family home. Ms. May indicated that she was very angry at her husband for leaving her, and that this anger was exacerbated when he moved in with another woman. She felt that, given his work schedule with evening appointments and weekend work, he had never been available to her as a husband or to Sarah as a father. The fact that he was now willing to take time off for Sarah's school functions and to spend time with her made Ms. May even angrier, although she fully acknowledged the benefits of this relationship for Sarah.

Ms. May described Sarah as a very loving child and felt that perhaps she sometimes relied "too much" on Sarah. She added that she had been under a great deal of stress, was seeing a psychiatrist, was on medication for depression, and was also having trouble controlling her drinking. She noted that she herself had had a parent with alcoholism, and that life had always been difficult for her. She was angry at Sarah's teacher for reporting her to CPS; she felt that she had done nothing wrong in allowing Sarah to stay home from school for a few "mental health" days.

Mr. May readily admitted to being out of the home a great deal prior to the separation and "not being the father he should have been" to Sarah when he and his wife were living together. He stated that he had come to realize how important appropriate parenting was through observation of the woman with whom he currently lived. He stated that his greatest fear was that the court would take Sarah away from both him and Ms. May. He described himself as a rather serious and intense person, who, up to this point, had been reluctant to share his feelings or give emotional support to the people for whom he cared. He stated that he was aware of needing specific help on how best to interact with Sarah. Although money was not plentiful, finances were not a major point of dispute between Mr. and Ms. May. Mr. May stated that he was interested in doing what was best for Sarah, and that it was not his intention to "take Sarah away" for her mother. Ms. May concurred with a desire to do whatever would be in Sarah's best interests. Neither parent had specifically asked for a custody evaluation for the courts, but the clinician had informed the father at the initial contact that she did not do such evaluations. When the clinician restated this restriction in her services, both parents indicated that they were not asking for a custody evaluation, but rather recommendations about the best living situation for Sarah at this time. They fully understood that the living arrangements were ultimately their decision, but that the clinician would offer them some recommendations.

Sarah's daily routines included school, ballet lessons once a week, and close relationships with paternal and maternal grandparents. Both parents saw Sarah as easygoing and almost too adaptable to their needs. She had been told that her father was leaving the home, but no other explanation by either parent had been given to her, nor had she asked for further information.

Child Interview

Mr. and Ms. May arrived with Sarah for her initial interview. With all three present, the clinician reviewed the purpose of the visit, assured Sarah of confidentiality with confirmations from her parents, and briefly talked about the reasons for the separation and the mother's seeking help for her depression and alcoholism. Mr. May further acknowledged that he had not always been available to Sarah or her mother when he lived with them. Sarah was told that the clinician would be meeting with Sarah, her parents, and the woman who was living with the father several times over the next month, in order to determine what Sarah needed and to help Sarah's parents meet her needs.

The purpose of this first interview was to develop a relationship with Sarah and to help her feel comfortable about talking about her parents' separation. Given the parents' description of Sarah as quiet and withdrawn, the clinician played a structured game with Sarah that allowed for expression of feelings (this game, which was also mentioned in Chapter 8 as being useful in treating depression, is called the Talking, Feeling, Doing Game). Sarah was initially reticent about expressing her likes, dislikes, and coping strategies for problematic situations, but she soon relaxed. After the game, Sarah was told that the clinician had talked with many children whose parents had separated, and that she could understand how Sarah might have questions or concerns about the separation.

Step 3: Observation of Behavior

Each parent was observed interacting with Sarah while playing a game and planning a trip. Sarah tended to follow her mother's lead and readily agreed to all of her suggestions. Her father tended to follow Sarah's lead and encouraged her to make suggestions. Sarah seemed to enjoy being with both parents, who were physically affectionate with her.

Step 4: Further Assessment

With the parents' permission, questionnaires were sent to Sarah's teacher, and phone contact was made with the teacher and CPS. The teacher described Sarah as a well-liked child who was nevertheless very quiet and not performing up to her potential academically. Sarah had missed 13 days of school in the last grading period and was late for school about 50% of the time. The teacher's contacts with Sarah's mother had not changed this pattern, and the teacher had decided to call CPS when Sarah cried one morning, saying she was worried because her mother had passed out from drinking and had not yet recovered when she left for school. Representatives from CPS indicated that although they did not want to remove Sarah from her mother's custody, they insisted that Ms. May get into a program for alcohol dependence. They were monitoring the situation closely and were pleased to hear that the parents had sought help for Sarah.

Step 5: Collaboration with Other Health Care Professionals

Sarah was referred to a divorce group for children at her school. Ms. May was already receiving appropriate treatment for her problems.

Step 6: Communication of Findings and Treatment Recommendations

The findings and recommendations were given simultaneously to both parents. Sarah was described as an easygoing, loving child who was very confused about the current family situation and very worried about her mother's emotional and physical well-being; she felt that if she did not stay with her mother all the time, something terrible would happen to Ms. May. Although Sarah enjoyed being with her father, this made her feel disloyal to her mother. At this point, she was not able to express her feelings freely (in fact, she could not even fully identify them). The clinician felt that Sarah was desperately in need of a united front on the part of her parents, a living arrangement that provided her with consistent care, and emotional support and regular contact with both parents.

Although the goal might ultimately be for Sarah to move easily between her parents, at the current time, it was recommended that Sarah live with her father and visit her mother regularly. The purpose of this would not only provide Sarah with stability but also give Ms. May an opportunity to engage fully and benefit from her own treatment. This arrangement would allow Sarah to see that her mother would indeed be able to take care of herself. Ms. May agreed to this arrangement almost with relief; she suggested that seeing Sarah two afternoons a week until 8:00 P.M. would be the best visiting schedule. It was also decided that Ms. May would call three times a week on set days, but that Sarah would not be told when she was calling. This was to avoid Sarah worrying about her mother if she did not call. The parents agreed that Sarah would begin treatment, with a focus on identifying feelings, learning to express them, and developing coping skills. Ms. May agreed that the clinician could keep in regular contact with her therapist and CPS. Mr. May agreed to attend an evening parent group focusing on parenting techniques and developmental issues in the elementary school years. To help Sarah transition to living in a "stepfamily," it was recommended that Mr. May and the "stepmother" receive counseling as needed.

RESOURCES FOR CLINICIANS

Drozd, L., Saini, M., & Olesen, N. (Eds.). (2016). *Parenting plan evaluations: Applied research for the family court.* New York: Oxford University Press.

Emery, R. E. (2012). *Renegotiating family relationships: Divorce, child custody, and mediation* (2nd ed.). New York: Guilford Press.

RESOURCES FOR PARENTS

Ford, M., Ford, S., Ford, A., & Blackstone-Ford, J. (2006). *My parents are divorced too: A book for kids* (2nd ed.). Washington, DC: Magination Press.

Levins, S. (2006). *Was it the chocolate pudding?: A story for little kids about divorce.* Washington, DC: Magination Press.

Lippincott, J. M., & Deutsch, R. M. (2005). *7 things your teenager won't tell you: And how to talk about them anyway.* New York: Ballantine Books.

Long, N., & Forehand, R. (2002). *Making divorce easier on your child: 50 effective ways to help children adjust.* New York: McGraw-Hill.

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CHAPTER 14

Bereavement

One of the most stressful life events faced by children is the death of a family member or their own impending death from a life-threatening illness. Death is not an uncommon problem for young children and their families. Approximately 4% of children in the United States lose a parent through death before they reach age 18, and 1.5 million children live in single-parent families because of death (U.S. Census Bureau, 2010). Furthermore, as survival rates for children with life-threatening illnesses improve, many young children must deal with the possibility of their own deaths and at the same time must live with tremendous uncertainty as they undergo stressful medical treatment for their illnesses.

Understandably, parents (and many professionals) have difficulty knowing what to say to children about death, how to help them deal with the aftermath of a death in the family, or how to help them cope with life-threatening illnesses. Efforts to help children deal with death have been influenced by the widely held assumption/myth that children cannot fully understand the concept of death, and that even if they do, it would be harmful for them to be exposed to information about death (Mahon, 2009; Poltorak & Glazer, 2006). Consequently, many professionals and parents have felt it best to shield young children from the experience of death (Mahon, 2009). Children often are not told how or why a person died, are not allowed to participate in family rituals surrounding the death, and are encouraged to deny the finality of death. Even terminally ill children often face their own deaths without the support they may need. The assumption of childhood naiveté regarding death more likely reflects adults' discomfort with death rather than the reality of children's ability to understand and cope with death (Mahon, 2009).

Despite parents' efforts to shield them, children routinely confront death in their day-to-day lives—through death of a pet, television programs/news in which people die (often quite violently), dead animals by the roadside, and/or stories and fairy tales (Renaud, Engarhos, Schleifer, & Talwar, 2015). As a consequence, all children think about death, and concerns and questions about death are a normal part of growing up, but the death of a loved one or contemplation of one's own death is understandably an upsetting event. It is important for clinicians to be aware of the empirical and clinical literature in this area, so that they are prepared to help children and parents cope with death should the occasion arise. In this chapter we first review the literature in the following areas: (1) what children understand about the concept of death; (2) how they cope with and adjust to the death of a family member; and (3) how terminally ill children cope with their own illness and possible death. We then provide suggestions for assessment and intervention strategies.

CHILDREN'S UNDERSTANDING OF DEATH

There are often questions about children's earliest experiences of death and how parents explain death to them. Renaud et al. (2015) studied how children learn about death and found that out of a sample of 140 families with children ages 2–7 years, 75% of parents had spoken to their children about death, and of these, 26% of parents had the first conversation when the child was between ages 3 and 3½ years. A conversation was more likely to occur when the child experienced a death of some kind. The topics of death were most related to the death of a character or individual in the media (e.g., on TV or in a movie), followed by the death of a family pet or a grandparent. In a large proportion of families that discussed death, the children asked the parents questions either during or after the conversation, and whereas almost half of the parents reported that they were completely comfortable talking with their children about death, the other half felt slightly uncomfortable talking about death. Only a small percentage (2%) reported they were very uncomfortable during the conversation. Girls were more likely than boys to start the conversation about death with their parents but, overall, parents most often initiated the conversation.

Children's understanding of death is based on research that ties children's conceptions of death to Piagetian theory of cognitive development. See Table 14.1 for children's understanding of death at different ages. Children in the preoperational stage (approximately ages 2–6), are egocentric, focused on present experiences, and find it difficult to take the perspective of others. Children at this stage usually have an incomplete understanding of five central components of the concept of death: (1) Death is inevitable (living things must eventually die); (2) death is irreversible (the physical body cannot be made alive again); (3) death is universal (all living things die); (4) all living functions (eating, feeling, knowing, etc.) cease at death; and (5) death is caused by certain specific classes of events (illness, old age, accidents, etc.) (Poltorak & Glazer, 2006; Slaughter & Griffiths, 2007; Speece & Brent, 1996). Furthermore, because young children understand the way the world works according to their own experience, death is typically conceived of in terms of sleep, separation, and injury—experiences common to all preschoolers (Gudas & Koocher, 2001). Children in the preoperational stage of development may be most vulnerable to death because they don't understand it and have less developed language skills to express their thoughts and feelings about the event (Miller, Rosengren, & Gutiérrez, 2014).

TABLE 14.1. Children's Understanding of Death by Age

Age	Cognitive state	Concept
0–1 years	Infancy	Little understanding of death, death related to separation from caregiver
2–6 years	Preoperational	Focus on self, hard to take perspective of others, more concrete, focus on the present; incomplete understanding of death, death seen in terms of sleep, separation, and injury; language skills less developed
7–10 years	Concrete operational	Understand permanence of death but not for self; only older people die, death is the result of external situations; able to see cause-and-effect relationships
10+ years	Formal operational	All components of death understood, abstract religious ideas

Note. Based on Poltorak and Glazer (2006), Slaughter and Griffiths (2007), and Gudas and Koocher (2001).

Children in the concrete operational stage (approximately ages 7–10) typically begin to understand the permanence of death, although death is not thought to be personally relevant; that is, they may believe that only old people die (Poltorak & Glazer, 2006). Children at this age also tend to see death as externally caused (the result of a disease or injury) rather than as a biological process that affects all living things. By adolescence, with the onset of formal operational thought, death is understood more completely, and abstract religious ideas may be included in teenagers' conceptions of death (Gudas & Koocher, 2001).

Although these distinctions in stages are made at different ages, it should not be assumed that all children experience death in these ways. Many preoperational children, for example, demonstrate concepts of death that include irreversibility, universality, functionality, and causality, and some children in the concrete operational stage do not. Moreover, some children under 2 years of age appear to understand some aspects of the concept of death, such as the finality of death (Stambrook & Parker, 1987). However, by age 7–10 years, most children have a fairly complete understanding of death as a primarily biological event and understand the five components of the concept of death. Also, once children are able to conceptualize death in biological terms, their fear of death decreases (Slaughter & Griffiths, 2007).

Not surprisingly, children who have had experience with death appear to have a more mature understanding of the construct than their peers who are less experienced (Schonfeld & Kappelman, 1990). Reilly, Hasazi, and Bond (1983) compared children (ages 5–10 years) who had experienced the death of a parent, sibling, close relative, or peer with children who had no experience with death; the experienced children were found to have an understanding of personal mortality that indicated a more advanced understanding of the concept of death than the inexperienced children. Furthermore, children who had experienced death often elaborated their understanding with specific examples from their experience.

In addition to the cognitive understanding of death, many children also have a spiritual or religious view of death. Children who have been raised under a religious tradition with their families (e.g., Christian, Jewish, Muslim) may come to understand death from religious doctrine and rituals, worship services, and ceremonies (Miller et al., 2014). Harris and Giménez (2005) found that children ages 7–11 years are able to understand death from both biological and religious perspectives at the same time. In their study, children could explain that functioning ceases at death, but they also claimed that functioning continues after death, and provided religious reasons for this difference. Older children were most likely to be able to identify religious themes when given a religious narrative, and to explain more metaphysical aspects or changes in mental processes after death. Also, earlier research indicating that children misunderstood the concept that life ends with death may actually reflect their understanding of death from a religious perspective of what happens after biological life ceases (Miller et al., 2014). Parents also report more satisfaction with explaining death to their children when they provide explanation about continued existence after death, whether it is about having an afterlife or discussing the memory of the deceased person and how this person continues to impact their lives (Renaud et al., 2015).

To summarize, in the absence of experience with death, the development of a mature concept of death seems to depend to some extent on cognitive development. Research has shown that children's understanding of death varies systematically with age (and presumably with cognitive-developmental level). However, for young children particularly, experience with the death of a family member or pet can serve to accelerate the understanding of death. It seems clear, therefore, that even young children may be capable of understanding information about death if it is presented in a concrete, simple fashion that takes into account their characteristic patterns of thinking and their everyday activities and experiences, such as family religious traditions.

CHILDREN'S ADJUSTMENT TO DEATH

Short-Term Effects

Uncomplicated grief refers to a typical process that people go through when they have lost a loved one (Cohen, Mannarino, & Deblinger, 2017). Researchers who have examined the short-term effects of parental death have found a strong association between death of a parent and increased psychological disturbances in almost all of the children in the weeks immediately following the death. Immediate typical reactions included high anxiety, crying and moodiness, overdependence, separation problems, increased aggression, nightmares and other sleep disturbances, fear of injury, toileting problems, loss of appetite, restlessness, lack of concentration, and learning problems

(Dowdney, 2000).

The most common reaction of children after death is depression. Gray, Weller, Fristad, and Weller (2011) found that 24% of children in their sample showed depressive symptoms 2 months after the death of a parent, and 25% of children in the sample met criteria for a major depressive episode. A child showing previous depression was more likely to experience subsequent depression. Other studies have documented suicidal ideation in bereaved children but found that they are significantly less likely than severely depressed children to attempt suicide, which suggests that their wish for death is more a wish to be with their dead parent rather than a desire to end their own lives (Dowdney, 2000).

Children who experience the death of a parent also often suffer secondary losses, such as reduced financial resources, unavailability of the remaining parent, and changes in their roles and responsibilities within the family (Gray et al., 2011; Kwok et al., 2005). The clinician must take these stressors into account when helping the child and the remaining parent grieve and adjust to the death.

Factors Influencing Long-Term Adjustment

Although many of the symptoms evidenced by bereaved children immediately following a death typically decrease over 6–12 months (Brent, Melhelm, Donohoe, & Walker, 2009; Forehand et al., 1999), some children continue to have significant problems. Several factors have been found to mediate children's adjustment to death over the long term (Gudas & Koocher, 2001). These include the circumstances of the death, subsequent family rituals, the psychological adjustment of the child prior to the death, the functioning of the primary caregiver, the amount of stress experienced during the process, and available social support. The "stages" of adaptation to death (denial, anger, bargaining, depression, and acceptance) derived by Kübler-Ross (1969) from her work with adults appear to apply to children as well, although these are no longer thought of as fixed stages as much as various reactions to the realization of death. In addition, there are typical tasks that children need to resolve when adapting to the loss (Worden, 1996). These include accepting the reality of the loss, experiencing the pain or emotional aspects of the loss, adjusting to life without the deceased, and finding ways to memorialize the person and place the relationship in a new perspective for ongoing adjustment. These tasks are not necessarily accomplished in a certain order, and the child may rework these tasks as they develop over time.

Worden and Silverman (1993) suggest that an adult who can meet a child's needs and provide open discussion of the death is the most important factor in helping a child cope with grief. Research supports the notion that open communication can enhance bereaved children's adjustment. Raveis, Siegel, and Karus (1999) studied 83 families with school-age children in which a parent had died of cancer during the previous 18 months. They found that children's perception of the surviving parent's level of openness in communication was the best predictor of child adjustment (as measured by symptoms of depression and anxiety). In a longitudinal study, Kwok et al. (2005) also found that children who experienced positive parenting, including a warm parent–child warm relationship and consistent discipline, had fewer mental health problems after experiencing death.

In addition to the mental health and coping ability of the surviving parent, other work suggests that the gender of the child may mediate the occurrence of later problems, although whether boys or girls are more adversely affected is not clear. Worden, Davies, and McCown (1999) compared school-age children who had experienced death of a parent with a group of children who had experienced a sibling's death. They found that boys were more adversely affected by the death of a parent, whereas girls were more affected by the loss of a sibling, especially a sister. In contrast, Stoppelbein and Greening (2000) found that girls were more vulnerable to posttraumatic stress disorder (PTSD) symptoms than were boys. Hence, the gender of the bereaved child may interact with the child's relationship with the deceased person in determining the type of symptoms evidenced, as well as overall adjustment.

The risk for behavioral disturbance in children who have experienced the death of a sibling appears to be similar to, or only slightly less than that in children who have lost a parent (Worden et al., 1999). Reviews of the literature (Dickens, 2014; McCown & Pratt, 1985) report that 30–50% of children showed behavior problems after the death of a sibling. Children ages 6–11 years and children whose deceased sibling had been over 2 years old showed more problems than older or younger children and those whose sibling died during infancy. Other factors found to be related to behavior problems were the place of death (behavior problems more highly related to death in the home rather than in the hospital), the diagnosis of a deceased child (behavior problems were more highly related to death by cancer than by cardiac condition or sudden infant death syndrome), and the number of surviving children (behavior problems were more highly related to fewer children in the home rather than more). In related work, Coughlan, Carr, and Fitzgerald (1998) found that the mothers' mental health status, in combination with children's self-esteem and locus of control, best predicted the adjustment of children with a sibling who had died of sudden infant death syndrome.

The nature of the death may influence children's adjustment. Pfeffer, Karus, Siegel, and Jiang (2000) found that children with a parent who had died from suicide reported significantly more depressive symptoms than those with a parent who had died from cancer. Cerel, Fristad, Weller, and Weller (1999, 2000) reported similar results but also noted that "suicide-bereaved" children had more psychological problems prior to parental death, in part because their families experienced more disruption (e.g., marital separation) and turmoil than did other families in which a nonsuicide death occurred. Brent et al. (2009) compared outcomes with children ages 7–25 years after the death of a parent by suicide, accident, or sudden natural death. They found that all bereaved children had higher rates of depression and alcohol abuse, greater impairment, and higher anxiety 21 months after the death of the parent. Those whose parents died by suicide or accident had higher rates of depression, and those whose parents died by suicide also had higher rates of substance use. Children's depression within the first 9 months mediated the relationship between the death and persistent depression at 21 months.

The traumatic death of a relative or friend, known as *traumatic grief*, is also associated with children's adjustment problems, particularly PTSD symptoms, even if the child's experience of the trauma may be relatively indirect (i.e., the child was not there when it happened) (Bent et al., 2009; Dickens, 2014; Lobb et al., 2010). Children experiencing traumatic grief must deal with issues of both trauma and loss and are more likely to experience *complicated grief* or *prolonged grief reactions* (i.e., the presence of grief-related symptoms for longer than is adaptive; Lobb et al., 2010). Predictors of complicated grief include previous loss, exposure to trauma, a previous psychiatric diagnosis, attachment style, and closeness to the deceased. In looking at grief trajectories of sudden parental death, Melhem, Porta, Shamseddeen, Payne, and Brent (2011) found three different trajectories, with 10.4% of children experiencing consistent prolonged grief reactions 33 months after the death; in contrast, 58.8% of children's grief scores decreased significantly from 9 to 21 months, and 30.8% of children's grief scores decreased slowly from 9 to 33 months. Children with prolonged grief had greater functional impairment, and the impairment persisted even after researchers controlled for child and parental psychiatric difficulties. Although trauma and grief share many common symptoms, the symptoms specific to trauma (e.g., hypervigilance, reexperiencing the event, preoccupation with aspects of the event, and avoidance of reminders) may hinder the grieving process. Thus, interventions may be more effective by targeting the trauma first, then focusing on grief reactions after the trauma symptoms have lessened or resolved (see Chapter 15; Brown, Pearlman, & Goodman, 2004).

Funeral Attendance

One question of great concern to parents is the extent to which children should be involved in the events that follow a death and, specifically, whether a child should attend the funeral. Funerals serve religious, social, and personal purposes for families to grieve their loved ones and transition to a new way of life after a death (Mahon, 2009). There is some consensus in the clinical literature that children should be given the opportunity to attend the funeral but not be forced to go, and that funeral attendance may actually help a child adjust better after a death. Although there has not been much controlled empirical work in this area, a few early studies (e.g., Furman, 1976; McCown & Pratt, 1985; Schowalter, 1976) reported adverse reactions among some children who attended funerals. But other studies have looked more closely at this outcome. For example, Worden (1996) described a study of 125 children ages 6–17 years who had recently experienced the death of a parent. Almost all of the children (95%) attended the funeral, and the majority of parents and children reported that they were expected to attend and wanted to attend. Neither attendance at the funeral nor emotional reactions to it were associated with poor adjustment 1–2 years later. Most children felt positive about the event and found ways to participate in the process such as helping plan the event, carrying the coffin, or choosing flowers or music for the service.

The American Academy of Pediatrics (2000) states that funerals can provide a way for children to grieve if the process is appropriately explained, compatible with family values including religious traditions, and support is provided. Children should be prepared for the service at a developmentally appropriate level. Funeral directors can often provide support services, such as special remembrance gifts to children, information and guidance during the funeral process to help adults explain information to children, and/or referrals to grief experts (Mahon, 2009). Children can be asked whether they wish to attend in a way that truly gives them a choice ("Some children would like to go to the funeral, and some children do not want to go. Which would you like to do?"). Children should be told what to expect at the funeral home or memorial service, and someone who will not be excessively upset should be available to answer questions and/or manage their behavior. In addition, children can participate in ways with which they are comfortable (e.g., younger children drawing pictures or giving or holding a favorite object, while older children may want to participate by speaking at the funeral or memorial service). The family may also want to remember the deceased loved one in other ways, such as planting a tree, writing down or voice/video-recording favorite stories of the deceased, and/or making a book of favorite pictures including the loved one. In addition, the family should remain alert to anniversaries of the death of the loved one and possibly develop family rituals, including activities during the day to celebrate the deceased loved one's life.

THE TERMINALLY ILL CHILD

The adjustment of children with life-threatening illnesses has become a concern for clinicians in recent years, in part because of dramatic increases in survival rates among these youngsters. Although cancer, for example, continues to be a leading cause of death among children, the 5-year survival rate for all childhood cancers has increased to greater than 80% from under 60% in the 1970s (Osterman, Kochanek, MacDorman, Strobino, & Guyer, 2015; Ries et al., 1999). Whereas efforts of professionals previously were directed toward helping family members cope with the death of a child with cancer, the current focus is on (1) understanding how children with life-threatening illnesses perceive death and (2) finding ways to help them cope with the invasive, lengthy, and often painful medical treatment necessitated by their disease and with the possibility of death (Kazak & Noll, 2015).

Understanding of Illness and Death

Just as bereaved children have been assumed to be naive about death, children with terminal illnesses were thought to be unaware of the seriousness of their illness. Children as young as 5 or 6 years old, however, have demonstrated a very real understanding of their illness, and even younger children are sensitive to and react to the upset of their parents as they deal with the child's life-threatening illness (Gudas & Koocher, 2001). As an example, the anxiety levels of children with cancer, in contrast to those with non-life-threatening chronic illnesses, have been shown to increase with more visits to the clinic (Dokas, 1996), suggesting an awareness of the severity of their illness.

The idea that children who are terminally ill have more mature concepts of death (presumably because of having to face the possibility of their own deaths) has been supported. In a review of the literature, O'Halloran and Altmaier (1996) found that children who are terminally ill demonstrate more death awareness than those who are chronically ill or have no health issues. This understanding is similar to that of children from war-torn countries, suggesting that it was the life-threatening aspect of the illness that led to increased understanding.

Adjustment of Terminally Ill Children

It would not be surprising to find increased symptoms of psychopathology among children with life-threatening illnesses. At the very least, these children are at high risk for emotional disturbances because of the disease-related stresses with which they must cope. Although some studies have found evidence of adjustment problems, such as greater anxiety or lower academic achievement among terminally ill children (Levy, Kronenberger, & Carter, 2008; Sanger, Copeland, & Davidson, 1991), others have found few differences between these children and healthy children (Allen & Zigler, 1986; Hilliard, McQuaid, Nabors, & Hood, 2015). In summary, the limited research indicates that while some children may evidence significant emotional or behavioral symptoms, most children are able to cope with a life-threatening illness (Friedman, Latham, & Dahlquist, 1998; Varney, Blount, & Quiggins, 1998).

The responses of children with life-threatening illnesses are best thought of as reactions to extremely stressful circumstances rather than evidence of functional psychopathology. These reactions are influenced by many risk factors, including the age and sex of a child, temperament, aspects of the illness (e.g., intensity of the treatment), the number of children in the family, the family's functioning and relationships, social support, religious orientation, financial resources, the type of medical and psychosocial care provided, and the family's communication patterns (Kazak et al., 2012; Levy et al., 2008; Stehbens, 1988). Kazak and Noll (2004) developed a framework to intervene with families with differing levels of needs related to their children's terminal illness and subsequent death. The first level, *universal intervention*, facilitates coping for all children and families who experience the illness and death and includes psychoeducation about the illness and resource assistance. The second level, *selected intervention*, is for the approximately 33% of families with risk factors that would benefit from services. The third level, *targeted interventions*, is reserved for families, approximately 7%, that are experiencing the most problems and possess the fewest resources. This framework has been used to develop screening measures for families, and it has shown that early screening is brief, requires few resources, is accepted by families, and has led to matching more appropriate services for level of care needed (Kazak et al., 2012).

The extent to which children and families are able to cope with the stresses of ongoing medical intervention and the possibility of death is a critical factor in determining children's adjustment. Spinetta (1978) defined the following behaviors as evidence of good coping: (1) nondefensive personal posture, (2) closeness to parents, (3) happiness with oneself, and (4) freedom to express negative emotions. He reported that open communication on the part of the parents is directly related to evidence of good coping among children. Other research supporting this view indicates that open communication is also related to a family's adjustment following the death of a child (Albuquerque, Pereira, & Narciso, 2015). Additional factors that enhance coping include the quality of the marital/couple relationship, lack of concurrent stresses, and level of family support. The existence of emotional or behavioral problems prior to the onset of the disease is also related to coping given that these are likely to become more severe as the child and family experience the stresses of the illness (Albuquerque et al., 2015). Interestingly, the medical status of the child and duration of his or her illness do not always seem to be related to coping, although each stage of the disease (diagnosis, treatment, remission, relapse, etc.) presents the child and family with unique stresses (Dokas, 1996).

Helping Children Cope

In light of the fact that honest and open communication has been related to both a child's ability to cope and a family's adjustment before and after the child's death, providing the child with honest information about his or her disease seems essential (Gudas & Koocher, 2003). However, parents often feel that their child will not understand the concept of death or medical procedures, so they decide not to talk with their child about these things. Kreicbergs, Valdimarsdóttir, Onelöv, Henter, and

Steineck (2004) found that out of 429 parents contacted, only 147 parents had talked with their child about the child's imminent death. However, of the 147, none of the parents regretted the discussion with their child, while 27% of those who did not have the conversation regretted not having it, especially if they felt their child was already aware of his or her imminent death.

Jaaniste, Hayes, and Von Baeyer (2007) suggested many benefits to providing information to children about medical procedures: (1) increasing the child's trust, (2) reducing uncertainty, (3) increasing the child's ability to cope with the potential procedure, (4) minimizing distress, (5) increasing the effectiveness of treatment outcomes, and (6) lessening pain intensity. It also may help the parents by lessening their anxiety levels and empowering them to support their child. A child's understanding of this information is less dependent on age and intellectual ability than on his or her experience with the illness (Stillion & Papadatou, 2002). Thus, assimilation of information about the disease is likely to occur over the course of the illness rather than all at one time. At first, the child learns that the illness is serious and that people sometimes die from it. Next, the child learns about the various treatments, how they will be administered, and their potential side effects. Then, the child experiences various treatments in the cycle of remission and relapse. Finally, the child comes to understand that the treatments are finite and death is a possibility. As is true for any stressful event, helping children cope by providing them with information is a process that is carried out over time, rather than a one-time intervention (Stillion & Papadatou, 2002).

As much as possible, children should be given a sense of control over the disease (Willard, Crabtree, & Phipps, 2014). Information about why certain treatments are necessary is one way of doing this. Children also can be given choices about some aspects of their treatment, which also fosters a sense of control. Finally, professionals can help family members maintain a future-oriented and optimistic point of view. Children should be prepared for the fatigue and pain they experience during treatment as much as, if not more than, their possible death (Gerhardt, Baughcum, Young-Saleme, & Vannatta, 2009). In addition, families should try to maintain routines as much as possible, because this is related to the child's sense of comfort and adjustment (Stillion & Papadatou, 2002). Children should also continue schoolwork during the course of the illness, either at home, in the hospital, or at school. Although parents may feel guilty about setting limits with their child, it can be very helpful for the child to have consistent expectations, maintain a regular schedule, and return to the structure of the school setting. In addition, school personnel should be informed of medical changes and set up a specialized plan at school as necessary (Stillion & Papadatou, 2002). Moreover, a child's frequent absences should be acknowledged and ways to help the child cope with missed schoolwork should be discussed with the teacher.

Preparing children for invasive medical treatments by giving them information about the procedures can help them cope more effectively with a serious illness. Informing children about procedures should contain both *sensory information* and *procedural information* (Lemanek & Joseph, 2010). *Sensory information* includes a description of the sensations (noises, smells, physical sensations) the child will experience during the procedure, whereas *procedural information* involves explaining the steps of the procedure. Information about medical procedures can be provided in a number of ways that are appropriate to the child's developmental level, including doll medical play, hospital tours, puppet shows, books, and modeling films.

It is important to note, however, that children have been found to have different coping styles; some actively seek out information, whereas others appear to avoid it (Stillion & Papadatou, 2002). Although children whose coping is categorized as "active" have been reported to experience less anxiety and to adjust better to medical procedures than do those whose coping is "avoidant," research has not evaluated the effectiveness of one method of providing information over another, or the effects of attempting to provide information to those children who actively avoid it. The variety of techniques that have been used to help children cope with invasive medical procedures include distraction, hypnosis, behavioral strategies (desensitization, modeling, contingency management, relaxation), and cognitive-behavioral techniques (Kazak & Noll, 2015).

When death is imminent, the clinician must focus on helping the child and family adapt to that reality. *Pediatric palliative care* includes services to attend to the physical, psychological, spiritual, psychosocial, and practical needs of the child and family, while *hospice* is a program or facility that provides palliative, end-of-life care to families, usually within the last 6 months of life (Gerhardt et al., 2009). Children who are dying may experience different stages of understanding of death, the expression of which can occur in any order and at any time during the process of adaptation. If given the message that it is OK to talk about their feelings, children will express denial, anger, bargaining, depression, and acceptance both verbally and through play. Some children are very open about their fears and concerns, whereas others continue to deny the seriousness of their illness but at the same time show signs of great anxiety. For these latter children, it is appropriate to treat the symptoms of anxiety, separate from discussion of the illness (Kazak & Noll, 2015). As an example, for a young child especially, anxiety is most likely related to fears of separation; therefore, a dying child should not be left alone. Children should be given the following messages: (1) "You will not be alone at death or after death"; (2) "You have done all you could do with your life"; (3) "Death will not hurt"; (4) "Your parents and others will always remember you and the happy times"; (5) "You can say goodbye to friends and family members if you want to"; (6) "We don't understand why children die, and we cry because we are sad about it"; and (7) "It's OK to cry and feel sad and angry, and it's OK not to want to talk about it, too" (Spinetta, 1982; Stillion & Papadatou, 2002).

Because losing a client to terminal illness is also difficult for the clinician, Papadatou (2000) proposed a model of the effect of a death on health care professionals that includes (1) loss of the relationship with the client, (2) empathy toward the parents and their pain, (3) a change in professional expectations about treatment, (4) a change in the clinician's view of the world, (5) an emphasis on the clinician's own unresolved personal issues, and (6) a focus on the clinician's own mortality. In addition, Keene, Hutton, Hall, and Rushton (2010) developed a bereavement debriefing to help professionals process their own reactions to a client's death, particularly with regard to perceptions of how health professionals are supported and manage their own grief. The format of the sessions include sections to review factual information of the death (e.g., the client's illness, circumstances around death); to discuss aspects of the case (e.g., "What was most difficult–easy about taking care of the client?"); to process grief reactions (e.g., "What type of physical, emotional, behavioral, cognitive, spiritual responses have you had since the death?"); to problem-solve strategies to cope with grief (e.g., "How are you taking care of yourself?"); and to think about lessons learned from the client (e.g., lessons that will help in dealing with another family in this situation).

ASSESSMENT OF DEATH-RELATED ISSUES

Given that almost all children over the age of 2 or 3 years show signs of grief at the death of a family member, an important issue for parents and clinicians is to determine whether the reaction is within the expected range or is evidence of psychopathology, and to differentiate typical grieving from clinical depression. Gudas and Koocher (2001) provide some guidelines for making this distinction. They state that it is important to assess the duration and intensity of the child's reaction (although there are no real guidelines about the length of time grieving should occur). Typically, reactions decrease over several weeks after a death, but anniversaries, holidays, and other events can trigger renewed grief reactions (these should be less intense and of shorter duration than the original reaction). Other critical factors to consider are the presence of anxiety, feelings of guilt or personal responsibility, denial of feelings, and an inability to talk about the death. In addition, young children are strongly influenced by the reactions of parents and other family members, so it is important to assess their response to the death as well.

The fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5; American Psychiatric Association [APA], 2013) offers guidelines for distinguishing between grief and clinical depression. It suggests that those who grieve continue to enjoy pleasurable activities from time to time, whereas those who are depressed typically do not. Furthermore, those who are depressed often express feelings of worthlessness, whereas lack of self-esteem is not usually seen in those undergoing typical bereavement. With grief, the sadness is usually accompanied by particular feelings of loss of the deceased, and if the bereaved person thinks about death or dying, the focus may be more about "joining" the deceased rather than on being able to cope with feelings of worthlessness or hopelessness. However, when depression and grief do co-occur, the symptoms and impairment are more problematic and the prognosis is worse (APA, 2013).

There are times when children may lose loved ones as a result of traumatic experiences, such as witnessing domestic violence between parents or the suicide of a family member, unexpected violent death in a car accident, natural disasters, or acts of terrorism. Children may then develop symptoms of childhood traumatic grief (CTG; Cohen & Mannarino, 2004; Cohen, Mannarino, & Staron, 2006). This grief involves not only the difficulties with losing a loved one but also trauma symptoms as a result of the event that put children at risk for developing more serious psychiatric symptoms and experience more impaired functioning. During assessment, it is important to look at the child's symptoms and see whether the child is experiencing additional trauma symptoms. The National Child Traumatic Stress Network Child Traumatic Grief Work Group developed parent and child interviews, the Characteristics, Attributions, and Responses after Exposure to Death (CARED—Child and Parent Versions; Brown, Cohen, Amaya-Jackson, Handel, & Layne, 2003) to gather information about the child's experience of a death. If there are trauma symptoms as a result of the event, it may be important to intervene with the treatment of the trauma symptoms, such as with trauma-focused cognitive-behavioral therapy (TF-CBT; see Chapter 15) before addressing the grief symptoms (Cohen, Mannarino, & Staron, 2006). These interventions must be flexible, based on the child's needs, however. Some children may go through all the trauma work first, then the grief, but for others, work with both trauma and grief may be interspersed throughout treatment.

When parents seek professional help for their children concerning issues of death, assessment varies depending on whether the situation is an emergency (e.g., a parent or other family member has died suddenly), whether the concern is about a child's persistent problems after a death or one in which the parents are anticipating an impending death. In the immediate death situation, the clinician may not have the opportunity to have the parent(s) complete parent questionnaires or checklists prior to the interview, but, if necessary, he or she may request that parents complete them at a later date. This assessment outline follows the Comprehensive Assessment-to-Intervention System (CAIS) presented in Chapter 2, with emphasis on those factors most related to concerns about bereavement.

Step 1: Initial Contact

If the clinician has the opportunity to do so and if appropriate, given the timing of the referral, a general questionnaire (e.g., our General Parent Questionnaire; see Appendix B); the Parenting Stress Index, Fourth Edition (PSI-4; Abidin, 2012) for parents of children under 12 years; and a behavior rating scale such as the Child Behavior Checklist

(CBCL; Achenbach, 2013; Achenbach & Rescorla, 2001a, 2001b) or the Behavioral Assessment System for Children, Third Edition (BASC-3; Reynolds & Kamphaus, 2015) should be completed prior to their first appointment. Typically, all the children in the family are of concern to the parents; thus, parents should be asked to complete a behavior problem measure for each child. The PSI-4 gives information about sources of stress for the family apart from the death, as well as indications of parental depression. The CBCL or BASC-3 alert the clinician to child behavior problems that may be unrelated to the death (preexisting) or are reactions to the death, and provide guidelines for judging their seriousness relative to norms related to typical child behavior.

Step 2: Initial Intake Interview

Parent Interview

We typically begin the parent interview with the parents alone. During this time, facts about the death are obtained, and the parents' specific concerns are clarified. In addition, the following information should be gathered:

1. *How is each parent* (*or the surviving parent, when a parent has died*) *handling the death?* Because parental functioning is clearly related to child adjustment following a death, questions should be asked regarding the parents' feelings about the death. High scores on the Depression scale of the PSI-4 should alert the clinician to assess this possibility more fully. Other sources of stress (financial, family relationships, etc.), and the availability of emotional and other types of support for the family, are also important to determine. Parents who are isolated or who are experiencing many other worries, apart from their concerns about their children, are likely to have more difficulty dealing with death.

2. *What questions about the death have the children asked?* Information in this area alerts the clinician to the concerns of the children. Questions indicating feelings of guilt or personal responsibility, or the absence of any questions, should be noted.

3. *What have the children been told regarding the death?* Assessment of this issue can lead to a discussion of parental beliefs about and perceptions of death. Religious beliefs in particular must be understood and appreciated by the clinician, because treatment will need to take these into consideration. Misconceptions about children's abilities to understand death can also be clarified.

4. *What was the relationship between each of the children and the deceased?* Often a child with a very close relationship with the deceased person has a more difficult time adjusting to the death. Children who have had a conflicted relationship with the deceased person, however, may experience feelings of guilt and/or responsibility.

5. *What unusual behaviors have the children exhibited?* Responses to the CBCL or BASC-3 can provide clues as to each child's specific problems. Further information on the frequency, intensity, duration, antecedents, and consequences of the behaviors should be gathered by questioning the parents. If the clinician suspects that a child might be depressed, his or her questions should address this issue specifically.

After gathering this information, the clinician explains to the parents (or parent) that the children will be invited to join the discussion, and that he or she would like the parents to repeat in front of the children some of what was said. If a parent does not want the children to know about certain aspects of the death, the clinician can discuss the benefits and disadvantages of not sharing this information openly. Parents are asked to describe the course of events leading to the death (or, if the death is impending, the situation as it currently exists) and their concerns about the children. If a parent is not able to do this, the clinician supplies the words and asks the parent periodically whether he or she is in agreement. The purpose of this strategy is to set the stage for open communication with the children and to relieve them of the burden of providing the clinician with details about the death. The clinician is then free to explore the children's feelings and worries about the death, because all the facts are out in the open.

Child Interview

At this point, the clinician talks with the child or children alone. The purpose of this first session with the child[1] is to foster engagement, express sympathy about the loss, and to gather information about the child's perceptions of the death and current worries or concerns. The interview, of course, varies considerably, depending on how able or willing the child is to talk about his or her concerns. It is appropriate to begin with a genuine expression of sympathy ("I know this is a very difficult time for you, and I am so sorry this happened"). Because parents (with the clinician's help) have talked about the death in the child's presence, the clinician can discuss parental concerns openly (e.g., "Your mother is worried about how you are handling the death of your father. What are you most worried about?"). If the child does not respond, the clinician can say, for example, "I have talked with other children whose fathers or mothers have died, and lots of them are worried that they might have done something to cause the death. Does this ever worry you?"

It is also important to gather information about other aspects of the child's life (school, friends, activities). This provides the clinician with guidelines about how much support each child is likely to need. Children with lots of friends and activities are likely to have developed an extensive support network and require less from the clinician than do isolated children.

Step 3: Observation of Behavior

Observation of the parent–child interaction or the child's behavior outside the clinic setting (e.g., at school) is generally not necessary in the assessment of death-related concerns, unless there are specific questions regarding this area. In the case of a terminally ill child, observation of the child in school may lead to suggested interventions to address problems in that setting (peer relations, withdrawal, etc.).

Step 4: Further Evaluation

In most cases, the previously described steps complete the assessment, although further evaluation may be indicated for children with problems that existed prior to the death, or if there are concerns regarding depression or trauma.

Step 5: Collaboration with Other Health Care Professionals

Parents who are experiencing significant depression should be referred to a mental health professional for counseling and/or medication. The clinician should be aware that other family members may also need to be seen. The clinician should consult with health professionals working with terminally ill children in order to facilitate information sharing with the family and available support services.

Step 6: Communication of Findings and Treatment Recommendations

At the end of the initial interview, the clinician should provide the parents with general information about children's understanding of death and how this applies to each child. Parents may also have specific questions about the children, such as attending the funeral (including open and closed casket), the resumption of regular routine, and behavior management. The clinician should also discuss his or her understanding of the current situation and, if recommended, present a rationale for treatment. We next review research on intervention strategies for concerns about death, then discuss specific areas to focus intervention.

TREATMENT OF DEATH-RELATED ISSUES

Intervention with bereaved children is largely preventive, in the sense that many of the strategies are aimed at ensuring that serious problems do not develop. Because death is such an integral part of life, parents should not wait until a death has occurred to talk with children about this topic. Children present us with many opportunities for conversations about death and dying, and it is at these "teachable moments" that their understanding of death can be enhanced. Parents who respond openly to their children's questions about death communicate to their children that it is OK to discuss this topic.

There has been little empirical research on effective methods of intervention with bereaved children (Currier, Holland, & Neimeyer, 2007; Rosner, Kruse, & Hagl, 2010). Two meta-analyses found low effect sizes for interventions but highlighted a vast range of differences across the few studies conducted, including different providers from public health, social services and hospices, and many different types of services (e.g., peer counseling; support groups; and group, individual, and family therapy). In addition, the varying lengths of time from death (up to 5 years) and varying symptom severity makes the findings from the studies questionable. However, family interventions (Sandler et al., 2003) have been shown to be effective in improving parental coping and reducing child internalizing and externalizing symptoms. Bacon (1996) discussed four tasks of grieving family members: (1) acknowledging the death, (2) sharing the pain that comes with grief, (3) reorganization of the family system after the death, and (4) changing relationships and goals.

After the events of September 11, 2001, and the traumatic grief that followed, a new treatment was developed, TF-CBT, adapted for childhood traumatic grief (TG-CBT), which adds a treatment component to address grief that children may be experiencing, separate from the traumatic aspect of the death (Cohen, Goodman, Brown, & Mannarino, 2004). This program has shown evidence of success in helping children with traumatic grief, including children of military families (Cohen & Mannarino, 2004, 2011; Cohen, Mannarino, & Staron, 2006), and it has also been suggested that the grief components can be used separately from the trauma aspects, which also suggests that a child does not need to experience traumatic grief to benefit from the grief components. There are four grief components of the treatment based on available scientific literature: (1) grief psychoeducation, (2) grieving the loss and resolving ambivalent feelings about the deceased person, (3) preserving positive memories of the deceased person, and (4) redefining the relationship with the deceased person and committing to present relationships.

Based on clinical experience, Baker, Sedney, and Gross (1992) describe the following tasks as guidelines for individual child treatment: helping the child (1) accept the reality of the death; (2) explore his or her relationship with the deceased; (3) cope with psychological pain; (4) be assured of his or her own personal safety; (5) reorganize his or her sense of personal identity; (6) return to age-appropriate activities; and (7) cope with recurrences of pain. Gudas and Koocher (2001) state that children typically have several important but often unarticulated concerns, including (1) "Could it happen to me? Or to my parent(s)?"; (2) "Who will take care of me?"; (3) "What is expected of me?"; (4)

"Did I cause it?"; and (5) "Why did he or she die?" (i.e., by what means). They suggest that parents and other concerned adults simply talk to children openly about the death and address these concerns by talking about how people cope with death, what happens at funerals, what people feel when someone close to them has died, and so on. For children who are having trouble coping with their grief, the task of the clinician is to help them differentiate between their own fate and that of the deceased, and to come to some closure about the death.

Masterman and Reams (1988) identified several themes that surfaced during the course of support groups for bereaved preschool and school-age children. These were (1) the stresses that resulted from the death, such as a surviving parent's unavailability to a child and financial problems; (2) anger over disruptions in their lives, as well as anger toward the deceased parent; (3) fear of their own death; (4) use of fantasies or denial to explain the absence of the deceased parent; (5) physical symptoms similar to those of the parent before death; (6) a desire to be reunited with the deceased parent and suicidal ideation; and (7) a fear of being perceived as different by their peers. Anger was often expressed in externalizing behavior problems, whereas fears were expressed through exemplary behavior, separation anxiety, and school refusal.

Various intervention strategies are now discussed in the context of the CAIS (see Chapter 2), with emphasis on five areas: the child, the parents, the environment, consequences of specific behaviors, and medical/health issues.

Intervention Strategies

Intervention with the Child

One of the primary intervention strategies for death-related concerns is providing children with factual, honest information about death that is appropriate for their developmental level. For a young child, this means crafting the message in terms that are concrete and related to the child's experience. Schaefer, Peretz, and Lyons (2000) offer excellent suggestions on how to explain death to children. They suggest an initial simple statement including the following elements: (1) The person has died; (2) this is very sad, and it is OK for children to talk about how they feel; (3) the person died because something happened to his or her body (this should be clarified as appropriate); (4) the word *dead* means that the body stops working and no longer does any of the things it used to do; and (5) it is OK for children to ask questions, and an adult will try to answer them. Children also need to know what will happen in the days immediately following the death, and exactly what is expected of them (who will take care of them, when and where the funeral or memorial service will be, etc.). Schaefer et al. also suggest avoiding the use of euphemisms such as "gone away," "passed on," "lost," "left us," or "died in his [or her] sleep," as these can be very confusing for young children. Furthermore, they state that religious concepts (e.g., heaven or hell) can be confusing for children, unless they are presented within the context of ongoing religious experience and instruction. Regardless of the family's religious beliefs, it can be explained that death is a biological process that happens to all living things.

Because children need to experience the finality of death very concretely, helping young children grieve often involves allowing them to do things that make adults uncomfortable. For example, young children may want to see the dead person and may have questions during the viewing that may be difficult for adults to answer. Older children may act silly or laugh inappropriately because they are embarrassed or do not know how to act. For all children, it is important to keep in mind the concerns that they are likely to have, and to address these concerns directly, even if the child does not verbalize the questions. In particular, a child experiencing the death of a parent is often worried about what will happen if the other parent should die, and will often ask repeated questions about this. The surviving parent needs to be prepared with a plan that can be shared with the children ("Aunt Mary will take care of you if anything happens to me"). For those children who have difficulties coping with the death, the components of TG-CBT can be used flexibly to address the areas in which the child is having particular difficulties.

Intervention with the Parents

Because the manner in which parents handle the grief process so clearly affects the child's adjustment, it is important for the clinician to understand and support the parents in their own grieving. Parents should be given permission to express a range of emotions in front of their child, as long as they provide an explanation to the child ("I am crying because I am sad that Daddy died"). The explanation is important, because young children so easily misconstrue adults' expressions of emotion, typically blaming themselves for the adults' tears or anger. In some cases, parents need to be referred for individual treatment before they can deal adequately with their child's needs. For these parents, it may be necessary to have another adult (someone the child knows and trusts) be responsible for the child until the parents are better able to function.

Providing parents with information about how children grieve is another important intervention strategy. In many cases, all that may be needed is to help parents understand how children at different ages understand death and what their typical concerns are, and to suggest the words to use to explain death. Parents need to be warned that the grief process in children is different from that in adults, and that, as a result, their child may behave as if nothing has happened (laughing, playing, and running around). Although this often makes parents angry ("She doesn't seem to care that Grandpa died"), it is normal and simply reflects the fact that children cannot focus their attention on grief for long periods of time. Furthermore, it is often through play that children come to terms with the fact of death. Playing out death scenes or funerals and acting as though the deceased person is still alive (e.g., talking to Grandma on the telephone) are common activities among grieving children. Parents should be encouraged to talk about the deceased person, both as he or she is remembered and as things come up in the present that remind them of that person. At the same time, it is important to remind children of the finality of death ("It's OK to pretend to talk to Grandma, but she is really dead and we can't see her anymore").

Intervention in the Environment

As part of the assessment, the clinician should have gathered information about the child's daily routines, and parents should be encouraged to maintain these routines as much as possible. Although it is appropriate to include the child in the functions that occur following a death, it is important to have them return to their normal activities as soon as possible. Parents often ask, "How long should I keep my child out of school?" We believe that it is in a child's best interests to return to school as soon as possible, within a few days at most. This reassures the child that life does indeed go on. Parents or another family member should inform the child's teacher and other important adults who have contact with the child about the death, so that they can be prepared to answer questions or help the child deal with any upset.

Changing the Consequences of the Behavior

It is important that parents maintain their expectations for appropriate behavior and continue to set limits when their child exhibits inappropriate behavior. Changing the rules and expectations during times of family turmoil can be very unsettling for a child and increase feelings of insecurity. Household rules can be enforced, and consequences can be provided for inappropriate behavior, at the same time that a parent expresses concern for a child's feelings ("I know you are upset/angry that Daddy died, but I cannot let you hit your sister"). Children who exhibit specific problem behaviors such as fears or sleep problems may be operating under misconceptions about the death, which will then need to be clarified. Often a behavior of concern will decrease as a child gains a better understanding of the death, but if this is not the case, then the problem behavior will need to be dealt with directly.

Intervention in Medical/Health/Medication Aspects

Parents often ask whether children should be given a sedative to calm them down, or sleep medication to help with sleep problems. It is rare that such medications are helpful for children, although some parents may benefit from sedation themselves. Generally, it is best to attempt to manage a child's upset by providing honest information and clear consequences for inappropriate behavior, and encouraging expressions of feelings. Children sometimes present with psychosomatic symptoms following a death in the family, and these should be checked out by a pediatrician, if necessary. Often, however, these symptoms are related to unresolved anxiety and decrease as a child is allowed to communicate openly about his or her concerns. If a child is showing significant anxiety or depressive symptoms, a medical provider who is knowledgeable about these areas may prescribe medications for these difficulties (see Chapters 7 and 8).

CASE EXAMPLE: DEATH OF A PARENT

Step 1: Initial Contact

Mr. Graves called early one Sunday morning and said that his wife had died unexpectedly 24 hours after giving birth to their second daughter. He wanted to know how to tell his 4-year-old daughter, Annie, about her mother's death and was concerned about her participation in the funeral. He said that the maternal grandparents were quite religious and that public grieving was part of their belief system. The clinician offered to meet with Mr. Graves and the maternal and paternal grandparents, as well as the maternal aunt, who had lived with the family during the first few years of Annie's life. There was no time to gather extensive background information prior to the meeting.

Step 2: Initial Intake Interview

Mr. Graves, the paternal grandmother, and the maternal aunt attended this session with the clinician. Mr. Graves, in a state of shock, described the death of his wife the previous evening. He indicated that his greatest concern was to help Annie understand and accept her mother's death. He had made arrangements for the baby to remain in the hospital until after the funeral. Annie was described as a strong-willed, precocious child, who had been well prepared for the birth of a sibling but had already shown some regression in toileting and sleep habits. Currently, she was sleeping with her father and was having occasional daytime toileting accidents. The maternal grandparents had been staying with the family for the past 2 weeks and had planned to stay for at least a month to help care for the new baby. The maternal aunt had lived with the family for 2 years, as noted earlier, but in the last 6 months had moved into her own apartment. She said that she would be able to move back into the family home immediately, and to care for the two children.

Mr. Graves described conflict over the funeral arrangements. The maternal grandparents wanted an open casket and an opportunity to share their grief with friends. The paternal grandparents and Mr. Graves felt that it would be in everyone's best interests to have a cremation and simple memorial service.

Step 3: Observation of Behavior

Step 4: Further Assessment

Step 5: Collaboration with Other Health Care Professionals

The third through fifth steps in the assessment process were not relevant to this case.

Step 6: Communication of Findings and Treatment Recommendations

Given the family's understandably intense emotions and the clinician's lack of familiarity with the family, the family members were offered the opportunity to hear about children's understanding of death in general and how this might be applied to handling the current situation with Annie. They were quite open to this and understood the need for concrete, simple explanations regarding her mother's death. After this sharing of information relevant to Annie's understanding and acceptance of death, the family engaged in problem solving with the clinician on how best to meet both Annie's and their own needs. It was agreed that Annie would be allowed to see her mother's body in the funeral parlor, and that she would attend a brief church ceremony. The family did not feel it was necessary for her to go to the cemetery, and the maternal aunt offered to stay home with her.

Although the paternal grandmother was concerned that open discussion and viewing of the body would make matters worse for Annie, she was able to understand that Annie would have many questions and concerns that could only be answered by seeing her mother's body. All the family members were especially concerned that Annie not associate going to the hospital with death. Giving Annie an opportunity for some grieving prior to her sister's being brought home was felt to be important in distancing her mother's death from her sibling's birth. The family members were advised that after Annie's initial adjustment to her mother's death, they would need to consider their own feelings about the new baby's arrival home.

The father, grandmother, and aunt were then given several books appropriate for children Annie's age to review. They chose *Samantha Jane's Missing Smile: A Story about Coping with the Loss of a Parent* (Kaplow & Pincus, 2007), which describes feelings that family members have after a death and ways to accept and respond to the loss. It was agreed that Mr. Graves and the maternal aunt would tell Annie about her mother's death, and that everyone would be available to answer Annie's questions in an honest and straightforward manner. Furthermore, they agreed to rely on each other when a response was too difficult for one of them or they did not have a ready answer. Mr. Graves requested that the clinician be available for consultation in case he or Annie needed assistance.

Two days later, Mr. Graves took Annie to the funeral home to see her mother's body. Annie arrived looking happy and chatting nonstop about a new teddy bear her mother had given to her before she went to the hospital. Mr. Graves held her in his arms so that she could see her mother. After an initial silence, Annie stated, "But this isn't my mommy. My mommy always laughs and talks with me." Mr. Graves explained that this was only her mother's body, and that the mother she knew had died and was no longer able to laugh or talk with her. Annie asked to touch her mother's face, kissed her, and then asked, "Will she get awake like Sleeping Beauty?" Mr. Graves again explained that the body would never be able to move, nor would her mother become alive again. Annie then proceeded to close the casket and to reopen it, with an expectation that her mother might speak to her as if in a game of hide-and-seek; she did this a number of times, and finally her father indicated that it was time for them to say goodbye to her mother's body. Annie waved goodbye to the body and closed the casket. Although Mr. Graves had tears streaming down his face, he indicated that it was clearly helpful for his daughter to have said a final goodbye to her mother.

The clinician had the opportunity to continue to work with this family from time to time over the next 2 years. Although adjustment was difficult for everyone, especially Mr. Graves, the family warmly welcomed the new child. Annie continued to talk openly about her mother and her death, but eventually in a matter-of-fact way. On a home visit, for example, she showed the clinician her room and her toys, and explained that the pictures on the bulletin board were of her mother who had died.

CASE EXAMPLE: DEATH OF A SIBLING

Step 1: Initial Contact

Mr. Finelli called the office, indicating that his 5-year-old daughter, Gina, had been hit by a car and killed the previous evening. He wanted advice on how to help his 10-year-old daughter, Mary, who had witnessed the accident. Mr. Finelli explained that Gina had run out into the street; when she was called to come back, she darted in front of a car. Gina was taken to the hospital, where she later died. The body was severely disfigured, and the family did not plan to have an open casket. The burial was to occur in the home town of the maternal and paternal grandparents, where the family was visiting.

Step 2: Initial Intake Interview with the Parent

The parent interview was conducted soon after the phone call. Mr. Finelli said that Mary not only had witnessed the accident but she had also been at the hospital with the family when Gina died. He said that Mary was aware of the meaning of death but was having difficulty expressing any emotion about the event. The parents and grandparents were openly expressing their sadness; at these times, Mary tried to reassure them that it would be all right, and then quietly disappeared to play or read by herself. Mr. Finelli indicated that this was a typical response from Mary when she was upset or under stress. He described her as a rather serious young lady who did well in school, had friends, and had enjoyed her 5-year-old sister. He was quick to add, however, that they had had their battles. They were concerned that Mary was not responding in a way that would help her adjust to Gina's death.

Mr. Finelli requested an appointment for Mary and also asked that the clinician offer assistance to Mary's and Gina's teachers and classmates. Mr. Finelli had already informed the school, the local church, and several neighbors about the death.

Step 3: Observation of Behavior

Step 4: Further Assessment

Step 5: Collaboration with Other Health Care Professionals

The third through fifth steps in the assessment process were not relevant in this case.

Step 6: Communication of Findings and Treatment Recommendations

Mr. Finelli was assured that everyone deals with death in his or her own way, and that Mary was handling it in the most effective way for her at this time. She was not avoiding the reality of the death, and she was able to offer solace to her parents, but she could not openly express her feelings. The parents were encouraged to include her in family rituals surrounding the burial; to continue expressing their feelings openly; and, while allowing her to be part of this process, not to force any grieving responses from her.

When the clinician contacted the principal of Mary's school, the principal indicated that she would have the girls' teachers talk with the clinician. The principal added that the school had already planned a memorial service for Gina, and that this would be held after Mary returned. The parents had agreed to this plan.

The teachers' concerns centered on telling the children about the circumstances of Gina's death and finding ways to help all the children in the school and their parents adjust to this tragic loss. The book *How Do We Tell the Children?* (Schaefer et al., 2000) was taken to the school. In discussions with the teachers and the principal, it was decided that the children and their parents would be told the circumstances surrounding Gina’s death: She had been playing in the front yard of her grandmother’s house; had run into the street to get a ball; and when called to return, had not looked both ways and had run in front of a car. She had been unconscious from that time until her death several hours later and had not felt any pain. It was agreed that this factual information would decrease the number of questions to Mary and her family, as well as rumors about how the death occurred. The teachers were able to think of things that each grade could do to express sympathy. They planned to ask the children what they would like to do but had several projects in mind in the event that the children could not come up with ideas. Not surprisingly, the children were very creative in finding ways to express their sympathy (e.g., drawing pictures, writing poems, and talking about and engaging in many of Gina’s favorite activities). Both Mary and her parents appreciated the outpouring of love and support for them, and indicated that it was very helpful in their acceptance of Gina’s death.

Interview and Intervention with the Child

When Mary was seen by the clinician, she readily described what had happened to Gina and indicated that she was sad, but it was clear that she did not want to talk further about it.

Several weeks later, the parents called to say that Mary was complaining of stomachaches and headaches, and did not want to go to school. When they allowed her to stay home, however, it was obvious that she was entirely well. A visit to the pediatrician revealed no medical reason for her physical complaints.

When Mary was seen by the clinician, she said that everyone at school was being very nice to her, but they were treating her as if she were “made of glass.” She found the children’s and teachers’ continued expressions of sympathy very difficult to deal with, and she wished things would get back to the way they were before her sister’s death. The clinician engaged Mary in a discussion of the different ways in which people express their grief. She was able to describe how each of her parents, her grandparents, and she herself were expressing their grief, and she could also see that people were handling the death in very different ways. The children at school were handling it by telling her how sorry they were and trying to make her feel better by being “overly kind.” The clinician and Mary then discussed how she might let the children at school know how she felt and what she needed without hurting their feelings. Through problem solving, (see Table 14.2), Mary decided on several statements that she could use in a variety of situations (e.g., “We’re sad, but we’re going to be OK,” “Thank you for your concern, but I’m finding it hard to talk about Gina’s death”). She also decided she would show the children that she was all right by actively participating in her regular activities. Mary’s physical symptoms immediately decreased, and over the next 3 months she made a good adjustment in school.

TABLE 14.2. **Example of Problem Solving with a Bereaved Child**

Problem-solving steps	Example
1. Define the problem.	“The kids want to be nice, but their sympathy and questions make me upset.”
2. Generate alternative solutions.	1. “I could change schools. 2. “I could stay home.” 3. “I could tell them I appreciate their help, but it makes me sad to talk about Gina right now.” 4. “I could ask the teacher to tell the kids not to talk about Gina.”
3. Evaluate the alternatives.	1. “I like my school, and it would make me even sadder if I left.” 2. “I would miss my friends and not be promoted.” 3. “It would let the kids know how I feel without hurting their feelings.” 4. “It’s not that I don’t want them *ever* to talk about Gina, just not all the time.”
4. Choose a solution and practice it.	Mary chose solution 3.
5. Evaluate the results.	“I’ll start telling the kids on Monday, and we can talk about how it is going when I see you on Thursday.”

RESOURCES FOR CLINICIANS

Cohen, J. A., Mannarino, A. P., & Deblinger, E. (2017). *Treating trauma and traumatic grief in children and adolescents* (2nd ed.). New York: Guilford Press.

National Child Traumatic Stress Network
www.nctsn.org

TF-CBT for childhood traumatic grief for a Web-based learning course
www.ctg.musc.edu

RESOURCES FOR PARENTS

Kaplow, J., & Pincus, D. (2007). *Samantha Jane’s missing smile: A story about coping with the loss of a parent.* Washington, DC: Magination Press.

Koocher, G. P., & La Greca, A. M. (2011). *The parents’ guide to psychological first aid: Helping children and adolescents cope with predictable life crises.* New York: Oxford University Press.

Woznick, L. A., & Goodheart, C. D. (2002). *Living with childhood cancer: A practical guide to help families cope.* Washington, DC: American Psychological Association.

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[1] Although more than one child may be present for this interview, the term *child* is used in this discussion.

CHAPTER 15

Traumatic Events

While many children experience stressful life events such as poor sibling/peer relationships, divorce, death of significant others, or medical illnesses, these events are not usually considered traumatic (American Psychiatric Association [APA], 2013; Cohen, Mannarino, & Deblinger, 2017). Factors that have been identified by the fifth edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-5), to distinguish traumatic events include directly experiencing actual or threatened severe violence or death, recurrent distress about the event, extreme avoidance, and alterations in mood and/or arousal due to the event (APA, 2013). Traumas that have the highest prevalence rates for children include the violent death of a family member or peer, physical or sexual abuse, serious accident, and natural disaster (Copeland, Keeler, Angold, & Costello, 2007). Even though 70–80% of children may experience a traumatic event by age 17 years, a much smaller percentage go on to develop severe problems following the trauma (Copeland et al., 2007; Turner, Finkelhor, & Ormrod, 2010). This chapter provides the clinician with empirically based information about the complex area of childhood trauma. The professional literature on the topic of childhood trauma is overwhelmingly large and diverse, including clinical case studies, observational studies, empirical research, and comprehensive reviews and meta-analyses. We have condensed this large volume of work to focus on the issues we view as central to assessing and treating children who experience traumatic events.

Research on trauma in children has focused primarily on the reactions of children to specific traumas (e.g., sexual abuse, natural disasters). It is only in the past 10 years, with the federal establishment of the National Child Traumatic Stress Network and website (*www.nctsn.org*), that there has been more focus on common experiences and reactions across different traumas and the combined effect of experiencing multiple types of trauma. Findings have shown that there are more similarities than differences in children's reactions to traumatic experiences. Therefore, it is important to identify traumatic experiences and factors that may cause a proportion of children to show more significant trauma symptoms. In this section, we discuss diagnostic criteria for different reactions to traumatic experiences, prevalence of different traumas, similar risk and protective factors across traumatic experiences, and, where appropriate, unique reactions of children to particular traumas.

TRAUMA- AND STRESSOR-RELATED DISORDERS

DSM-5 (APA, 2013) categorizes trauma and stress-related disorders in several ways. These disorders are distinct from other disorders, in that experiencing a traumatic event is a requirement within the criteria for the disorder. The most common of these disorders in children are posttraumatic stress disorder (PTSD), acute stress disorder, and adjustment disorder.

Posttraumatic Stress Disorder

Central features of PTSD in DSM-5 (APA, 2013) include (1) experiencing or witnessing an event involving threatened or actual death or grave injury to self or others; (2) intrusive symptoms related to the event (e.g., nightmares, trauma-specific reenactment in play); (3) avoiding stimuli associated with the trauma (e.g., not talking about the event or refusing to go to the place where the trauma occurred); (4) problematic changes in thoughts or mood (e.g., trouble remembering parts of the event, or persistent fear or blaming self about the event); and (5) hyperarousal (i.e., startle responses, hypervigilance, inattentiveness, irritability or anger, and/or trouble sleeping). In recognizing that young children may experience traumatic symptoms differently, DSM-5 has separate criteria for children age 6 years and younger. Several of the criteria are similar to those listed earlier, with modifications for young children: (1) experiencing or witnessing an extreme event but excluding the option of repeated exposure to details in work, such as for first responders; (2) the same criteria for intrusive symptoms related to the event; (3) combining into one category the avoidance of stimuli associated with the trauma and problematic changes in thoughts or mood; and (4) similar criteria for hyperarousal except that it does not include the possible criteria of reckless or self-destructive behavior. For all children, the clinician should also specify whether the child experiences dissociative symptoms, which could be either *depersonalization*, a feeling of being detached from the body, or *derealization*, a feeling that experiences in the world are not real or are distorted in some way. In addition, the symptoms should persist for at least a month and cause clinically significant impairment. There is also a specifier acknowledging that children may have *delayed expression*, which is defined as not meeting full criteria of symptoms until at least 6 months after the trauma. Part of the change in these symptom criteria for children is the acknowledgment that children often experience significant functional impairments even if they do not meet all criteria for PTSD (Cohen et al., 2010).

Acute Stress Disorder and Adjustment Disorder

Acute stress disorder is distinguished from PTSD in that the symptoms start 3 days after the trauma and remit after 1 month. *Adjustment disorder* is distinguished from PTSD in that the stressor does not meet the severity level of PTSD or the child experiences a severe trauma but does not experience other symptoms needed for a PTSD diagnosis (APA, 2013).

Prevalence

In a national study of 4,053 children, ages 2–17, Turner et al. (2010) reported that 80% of children had experienced some type of victimization, 66% of the sample was exposed to more than one type of victimization, 30% experienced five or more types, and 10% experienced 11 or more types of victimization in their lifetimes. They reported peer/sibling (79%) and physical assault (73.3%) as the highest victimizations, followed by exposure to community violence (51.4%), property damage (47%), bullying (26%), witnessing family violence (20%), sexual victimization/assault (11%), and physical abuse (6%). In addition, experiencing different types of victimization, termed *polyvictimization* (e.g., experiencing both physical abuse and bullying), was more highly related to trauma symptoms than experiencing multiple instances of the same type of trauma.

These results are consistent with a longitudinal study by Copeland et al. (2007) involving 1,420 children from a community sample. They found that almost 70% of children reported at least one traumatic event by 16 years of age, with very few of these children meeting criteria for a disorder. Lifetime prevalence rates were 32.8% for injuries/trauma (e.g., serious accident, natural disaster), 24.7% for the category of violence (e.g., violent death of family member/peer, physical abuse), 23.7% for witnessing an event happening to another, 21.4% for learning about an event happening to another, and 11% for sexual trauma. In the same study, overall rates of PTSD diagnosis (DSM-IV; APA, 1994) for children experiencing one or more of these events was 0.5%. By the age of 16, there were similar percentages of children who reported no event exposure (32.2%), exposure to one event (30.8%), or exposure to multiple events (37.0%). The rates of impairment increased with the number of traumatic events children experienced; also, the likelihood of a child evidencing PTSD symptoms increased with the number of events experienced. In addition, the Adverse Childhood Experiences (ACEs) study showed that the effect of these stressors can last into adulthood (Centers for Disease Control, 2017). As the number of childhood stressors increased, the more likely adults would show negative health outcomes, including drug use, depression, obesity, cancer, and heart disease.

The national report on child abuse and neglect data from 2009 to 2013 (U.S. Department of Health and Human Services [USHHS], 2015), reported that overall rates of reported maltreatment declined from 9.3 to 9.1% over this time period. The largest number of child victims were neglected (79.5%), followed by physically abused (18%), sexually abused (9%), and psychologically maltreated (8.7%). The majority of victims were European Americans (44%), followed by Hispanics (21.2%) and African Americans (22.4%). For 2013, national statistics indicated that 1,520 children died from abuse and neglect; 78.9% of these deaths were caused by one or both parents, and 73.9% of the children were younger than 3 years of age (USHHS, 2015).

Overall, the data not only show a broad range of traumatic experiences for children but they also suggest that the number of traumas can affect children as much as the different types of traumatic events.

CHILDREN'S ADJUSTMENT TO TRAUMA

Short-Term and Long-Term Reactions

Most children experience initial symptoms after a traumatic event. Psychological distress is a normative reaction after experiencing an unexpected or terrifying event (Cohen et al., 2010). However, for a significant proportion of children, the symptoms discontinue after a month, and most recover from acute symptoms within 3 months after the trauma, even without treatment (APA, 2013). Osofsky, Osofsky, Weems, King, and Hansel (2015) found that four different trajectories of symptoms for children exposed to trauma can potentially be used to help plan interventions. They found that the highest number of children (52%) experienced stable-low symptoms and were described as children who showed resilience after the trauma; the next group (21%) evidenced initial symptoms but then the symptoms dissipated, with the children described as experiencing recovery; a third group (9%) of children who continued to experience symptoms that got worse were described as experiencing more chronic symptoms; and a fourth group of children (18%) who displayed symptoms after a period of time were described as experiencing delayed distress. The first two groups of children may be those that already have enough support to deal with the trauma and resume their daily routine with little to no difficulties. It is the third and fourth groups of children that continue to show increasing symptoms that need intervention.

It is not surprising that children who have more severe reactions to traumatic events are also more likely to experience depression, anxiety, behavioral problems, and PTSD (Cohen et al., 2010; Copeland et al., 2007). In addition, children who have been emotionally, physically, and/or sexually abused are more likely to demonstrate risky sexual behavior (Norman et al., 2012; Putnam, 2003). Several pre- and posttrauma factors have been examined across a range of traumatic events in order to predict which children will experience more severe symptoms, such as PTSD (Trickey, Siddaway, Meiser-Stedman, Serpell, & Field, 2012). These factors can be grouped by demographic factors, individual child factors, characteristics of the environment (e.g., family factors), and specific trauma event characteristics (see Table 15.1).

TABLE 15.1. Factors That Influence Traumatic Reactions

Source	Factor
Demographics	Age Gender Intelligence SES
Child	Severity of trauma Comorbid psychological problems Reactions during event Coping strategies used after event PTSD/panic reactions
Environment	Low social support Poor family functioning Parent psychopathology Parental trauma symptoms Continued experience of stressors Parental mental health Difficulties parenting
Abuse characteristics	Severity of abuse Multiple types of abuse Relationship with perpetrator Frequency and duration Physical evidence Use of force Maternal support
Natural disaster characteristics	Amount of destruction/death How close to disaster Loss of loved one Severity of injuries Length of hospital stay

Demographic Factors

Demographic variables have shown inconsistent findings across studies. Some studies have found no or small effects for race, minority status, and age as risk factors for PTSD but others have found that older children experience more symptoms (Alisic, Jongmans, van Wesel, & Kleber, 2011; Copeland et al., 2007; Trickey et al., 2012). In addition, female gender, low intelligence, and low socioeconomic status (SES) have also been shown to have small to medium effects on traumatic reactions (Alisic et al., 2011; Trickey et al., 2012). This suggests that traumatic reactions may be explained not by simple demographic factors but the combination of different aspects of stressors (Alisic et al., 2011). For example, Trickey et al. (2012) found that young age was unrelated to developing PTSD, but that there was a stronger relationship between PTSD and younger age when the trauma was unintentional versus intentional. In addition, their results suggested younger children may experience more PTSD symptoms when they experience the trauma in a group versus individually. There was also a small effect of female sex being a risk factor, but it was stronger in older children and adolescents when the trauma was unintentional. Trauma severity has also been shown to be related to development of symptoms, but, again, the effect of this has varied across studies. Therefore, the findings indicate that there is not a direct relationship between demographic factors and subsequent problems.

Individual Child Factors

Individual factors before, during, and after the event have been shown to play a role in children's experience of trauma. Children's comorbid psychological problems, such as anxiety or depression, have been shown to exacerbate trauma reactions, with depression being the most predictive of PTSD symptoms (Alisic et al., 2011; Trickey et al., 2012). Reactions *during* the event, such as fear and perceived life threat, as well as higher initial heart rate directly after the trauma, and use of strategies *after* the event, such as social withdrawal, the use of distraction, and thought suppression, have also been related to more difficulties (Alisic et al., 2011; Furr, Comer, Edmunds, & Kendall, 2010; Trickey et al., 2012). Thus, it is important to assess the child's status before the trauma, his or her experience during the trauma, and ongoing coping strategies. These results also suggest that a cognitive model is helpful in looking at how children are coping with the event; distraction and thought suppression may be functional strategies for the short term but may become more unmanageable for children if they have unresolved issues, particularly when accompanied by low support from families or poor modeling from adults in terms of how to handle stressors. In addition, children's reports have been shown to be significantly more related to postdisaster symptoms than parent's reports, indicating that children may be better reporters of the effects of the disaster on their own functioning (Furr et al., 2010).

Children's initial PTSD reactions after the event also strongly predict later PTSD symptoms (Alisic et al., 2012; Trickey et al., 2012), which suggests that initial screenings of symptoms right after the event may be very predictive of continued symptoms. Researchers have found a strong relationship between panic symptoms during and after the initial trauma associated with the development of acute stress reactions. Sinclair, Salmon, and Bryant (2007) found that 100% of children who experienced trauma symptoms and panic attacks also developed acute stress reactions, while only 24% of children without panic symptoms experienced acute stress. It is possible that panic symptoms may play a role in the conditioning of a fear response and maintaining these symptoms for children. In addition, younger children experienced more acute stress symptoms. Younger children may have less coping skills to buffer themselves when experiencing symptoms and may also rely more on parents as guides to how they should cope with the situation.

Characteristics of the Environment

Aspects of the child's environment have produced large effects, such as low social support and poor family functioning (Trickey et al., 2012). Parent psychopathology and their own reports of posttrauma symptoms have also predicted children's long-term symptoms (Alisic et al., 2011). These results suggest that several family environment areas be targeted in early intervention for children after a traumatic event. In addition, examination of family resources and support may be key to a child's interpretation of the event. For example, trauma can cause subsequent changes, such as breakup of the family, a change of residence, and changes in financial status, which may cause new stressors to develop. Trickey et al. (2012) found that poor family functioning was an even stronger predictor of PTSD than parental mental health, which suggests that how the family copes with the trauma and how much the child's normal routine is disrupted can significantly affect the child's day-to-day functioning. This can be particularly true in natural disasters such as Hurricane Katrina. The large-scale displacement of families and disruption of typical activities for an extended amount of time contributed to aggravated symptoms for children and their families (Madrid & Grant, 2008). In addition, results about family functioning support a relational model of trauma and the moderating effects of parental reactions on children and their own adaptation to trauma (Scheeringa & Zeanah, 2001). The relational aspect may be more important to younger children, who depend on their parents more for basic needs and cues about emotional responding. Therefore, when parents are affected by trauma, their children may be influenced by their emotional reactions and the more limited parenting or care they provide. In looking at children's long-term reaction to Hurricane Katrina, Moore and Varela (2010) found that 33 months after exposure to the hurricane, 46% of the sample still experienced moderate to severe levels of symptoms. They also found that low social support, as well as other negative life events (e.g., living in shelters) posttrauma, led to continued experiencing of symptoms.

Specific Trauma Event Characteristics

Aspects of the trauma itself can also influence the child's reactions. Severe abuse and those experiencing multiple types of maltreatment are at increased risk of developing more problematic symptoms (Norman et al., 2012). In addition, increased difficulties are evidenced by children who have been sexually abused when additional factors are present, including: 1) a close relationship with the perpetrator; 2) high frequency and long duration of sexual encounters; 3) physical evidence of oral, anal, or vaginal penetration; and 4) use of force (Beitchman et al., 1991; Kendall-Tackett, Williams, & Finkelhor, 1993; Putnam, 2003). Moreover, maternal support, especially at the time of disclosure, has consistently been found to be related to a child's adjustment. This should not be surprising, because children who are caught in the midst of family turmoil surrounding the disclosure of abuse are most likely going to suffer more than children whose families support them.

In studying the effects of natural and man-made disasters, in a meta-analysis of 38 distinct disasters, Furr et al. (2010) found that the type of disaster is not as significant as the amount of destruction and death, how close the child was physically to the disaster, and the experience of losing a loved one. In addition, the severity of the child's injuries and length of hospital stay also predicted more problematic reactions (Alisic et al., 2011).

Thus far, risk factors have been studied more often than protective factors (Alisic et al., 2011) for children. However, it is also important to look at resilience, and the term *posttraumatic growth* (PTG) describes positive changes that develop after trauma, and how children and families can transform traumatic experiences into areas of strength for children. For example, a study of children's experience after Hurricane Katrina showed that children experienced not only trauma symptoms but also PTG after the event (Kilmer & Gil-Rivas, 2010). In addition, they found that rumination, either positive or negative, was significantly positively related to PTG. This suggests that some repetitive thoughts that are either deliberate or uncontrolled may actually help a child to find meaning in the difficulties experienced. They also found that children's positive future expectations approached significance but noted that the extreme disruption in family life due to the hurricane may have made it difficult for them to maintain optimism about the future (Kilmer & Gil-Rivas, 2010).

ASSESSMENT OF TRAUMATIC EVENTS

Assessment of children exposed to trauma is challenging due to the different types of experiences and outcomes for children. Since there are many types of possible traumatic experiences and varying reasons for requesting an assessment, it is very important to clarify the purpose of the assessment. For example, assessing whether abuse *has occurred* is a very different question than assessing the effects of the abuse on the child; since assessing whether abuse has occurred involves specific skills, we cover factors related to this type of assessment in a later section. In addition, it is important to know whether there may be possible legal issues involved with the case, such as insurance or injury claims. There is also a more likely chance of the clinician needing to report to child protective services (CPS) if the trauma includes violence to the child or putting the child in dangerous situations (see Chapter 2). A child may also be referred because someone is concerned about the effects of his or her experiencing a trauma such as a car accident, abuse, or witnessing domestic violence. It is important to remember that just because the child has experienced a trauma, it should not be assumed that the child is experiencing significant reactions.

Since traumatic experiences have become increasingly common for children and families, the Substance Abuse and Mental Health Services Administration (SAMHSA) has recommended that clinicians and organizations adopt a *trauma-informed* approach that incorporates three key elements: (1) realizing the prevalence of trauma; (2) recognizing how trauma affects all individuals involved with the program, organization, or system, including its own workforce; and (3) responding by putting this knowledge into practice (SAMHSA, 2012, p. 4). Within this framework, it is important for clinicians to approach a child and family with respect and recognize that traumatic events may influence a child's response at all levels of assessment and services, even if the clinician is not informed of the trauma (SAMHSA, 2014b). Therefore, the clinician should create a trauma-informed environment, filled with compassion and support, which helps the client be more comfortable with the situation and avoid retraumatization. Also, the clinician should understand which types of assessment and trauma-specific treatment would be appropriate to foster positive outcomes. In this section, we discuss the most recent literature on assessment of traumatic experiences and interpret this within the Comprehensive Assessment-to-Intervention System (CAIS; see Chapter 2).

Step 1: Initial Contact

The Referral

Clarifying the Referral Question

Children who have experienced abuse or a trauma can be referred by many different people, including parents, CPS workers, police, physicians, insurance companies, attorneys, and judges. In assessing these cases, it is most important to clarify the referral question(s), so that the clinician and the referring person(s) are in agreement about the focus of the assessment. The clinician must then decide which questions can be reasonably answered according to the facts of the case, and carefully focus the assessment on only those questions. If a clinician does not have specialty training in assessment of allegations of abuse, we recommend that the clinician refer the case to someone who has this specialty. The assessment process presented here is pertinent when a child is referred for treatment because of adjustment issues that appear to be due to a traumatic experience. For example, a child may have experienced a natural disaster, such as a hurricane or tornado, and is having severe anxiety reactions. A child may also be referred because of substantiated abuse and he or she is experiencing depressive symptoms. In addition, a child may be referred for treatment because a parent is worried that abuse may have happened, because their child is having behavior problems. The focus of assessment in this instance should be on the behaviors of concern, *without* the assumption that abuse has occurred. It is imperative in these cases that the clinician maintain a neutral attitude toward the possibility of abuse. Clinicians may also be asked to see a child for treatment when there is an ongoing investigation for abuse. Generally, we recommend that treatment not begin until a case has been investigated and substantiated or unsubstantiated. However, sometimes investigations can last for long periods of time and children may have symptoms that need to be addressed. Children may also have observed violence toward others, such as family members, and are having symptoms due to this but are also being asked to testify in court against the aggressor. In addition, a clinician may have a case in which there is no referral issue of trauma, but during assessment or treatment a traumatic event is revealed or experienced. The clinician should be sure to appropriately document information for all cases and clarify with the family whether this information may need to be used for legal documentation.

Gathering Background Information

Before interviewing the child and/or family, the clinician should contact all persons involved in the case (using appropriate releases of information) to determine their roles, to find out what information has already been gathered, and to promote collaboration. If children are referred from outside agencies, such as the court, it is also important to contact the individual who made the referral. The information to be gathered at this stage in the assessment process includes the child's developmental and family history; the type of trauma; in the case of abuse, the nature of the child's initial disclosure (or, if there is no disclosure, the reason why abuse is suspected); and behavioral changes evidenced by the child since the traumatic event. Table 15.1 presents many of the risk factors associated with poor outcomes in families in which trauma has occurred. Information about each of these factors should be gathered during the assessment and used to address how the family has responded since the trauma and the potential need for treatment. The presence of any one or two factors may not necessarily be of concern. Rather, the accumulation and interaction of risk factors determine outcome in most cases.

Questionnaires

There has been an increase in questionnaires and checklists for children and families to screen for exposure to traumatic experiences and resulting symptoms (Ohan, Myers, & Collett, 2002; Strand, Sarmiento, & Pasquale, 2005). Also, questionnaires specific to particular traumatic experiences have been developed (see Strand et al. for a comprehensive review). The questionnaires mentioned here are those we have found most useful in a general psychology clinic.

The General Parent Questionnaire (see Appendix B) provides information about the family constellation and the parents' perceptions of the problem. In addition, there are specific questions about types of trauma the child may have experienced that can be followed up in the parent interview if the parent indicates that the child has experienced them. The Child Behavior Checklist (CBCL; Achenbach, 2013; Achenbach & Rescorla, 2001a, 2001b) has been used in research addressing symptoms of trauma and emotional or behavioral problems with mixed results (Loeb, Stettler, Gavila, Stein, & Chinitz, 2011; Milot et al., 2013; Rosner, Arnold, Groh, & Hagl, 2012; Sim et al., 2005). Wolfe and Birt (1997) used the CBCL to describe PTSD symptoms by selecting items that represented DSM-IV criteria; they suggested that this measure could serve as an adjunct to the regular scoring of the CBCL. These items are shown in Table 15.2. Studies have shown differences between children who have experienced trauma and typical populations on this scale, but not between those experiencing trauma and psychiatric populations, which suggests that the PTSD scale may pick up more general emotional distress and that trauma symptoms overlap with other disorders (Rosner et al., 2012; Sim et al., 2005). Therefore, the scale may help to screen for problems, especially if it is the only one that is used in a particular setting, but other questionnaires should be used to establish particular diagnoses. In addition, a revision of the Screen for Child Anxiety-Related Disorders (SCARED; Birmaher et al., 1997, 1999; Muris, Merckelbach, Korver, & Meesters, 2000b) includes a Traumatic Stress Disorder scale to use as an initial screen, along with other anxiety symptoms, for detecting children who have been confronted with traumatic life events and may be at risk for developing PTSD (Muris et al., 2000a). Also, the Parenting Stress Index, Fourth Edition (PSI-4; Abidin, 2012) provides preliminary information about the child's temperamental characteristics and sources of stress for the child's parent(s) separate from the trauma.

TABLE 15.2. Child Behavior Checklist (CBCL) Posttraumatic Stress Disorder (PTSD) Items

DSM-5 PTSD symptom domain	CBCL items
Reexperiencing	9. Obsessive thoughts
	13. Confused; seems in a fog
	14. Cries a lot
	17. Daydreams
	47. Nightmares
	71. Self-conscious

	112. Worries
Fears and avoidance	11. Clings to adults
	29. Fears certain animals, situations, or places
	30. Fears going to school
	31. Fears doing something bad
	45. Nervous, high strung
	50. Fearful, anxious
	69. Secretive
	111. Withdrawn
Hyperarousal	3. Argues a lot
	8. Can't concentrate
	10. Can't sit still, restless
	41. Impulsive
	56f. Stomachaches
	86. Irritable
	87. Moody
	100. Trouble sleeping

Note. Data from Wolfe and Birt (1997).

Other screeners look specifically at trauma experience (see Appendix A). The UCLA PTSD Reaction Index (Pynoos, Rodriguez, Steinberg, Stuber, & Frederick,1998) is a revised version of a widely used and researched measure that screens for the presence of a traumatic event and associated PTSD symptoms. This measure, which has been used with the National Child Traumatic Stress Network database, has shown good internal and convergent validity, and models factors for a DSM PTSD diagnosis (Elhai et al., 2013; Steinberg et al., 2013). It is for children ages 7–12 years, as well as adolescents, and has both parent and child forms. The Pediatric Emotional Distress Scale (PEDS; Saylor, Swenson, Reynolds, & Taylor, 1999; Spilsbury et al., 2005) was devised to detect symptoms after a traumatic event for children as young as 2 years to those that are 10 years old. It is a shorter screen that discriminates between those who have experienced a trauma and those who have not. Also, the Child PTSD Symptom Scale (CPSS; Foa, Johnson, Feeny, & Treadwell, 2001), a child version of a trauma scale developed for adults, has a parent-report form for children ages 8–18 years. This scale asks about symptoms, gives severity scores, has been translated into several languages, and has suggested cutoffs of severity scores for a diagnosis of PTSD (Gudiño & Rindlaub, 2014; Nixon et al., 2013).

The Child Sexual Behavior Inventory (CSBI; Friedrich, 1997, Friedrich et al., 2001) has been shown to be useful in documenting unusual sexual behaviors. It consists of questions about specific types and frequencies of sexual behavior exhibited by children. This instrument has been standardized and validated by comparing responses of parents of sexually abused children (ages 3–12) with those of parents of nonabused children of the same ages. Sexualized behavior is often thought to be an indication that a child has been sexually abused. Indeed, many sexual behaviors (e.g., asking to engage in sex acts, putting mouth on sex parts, masturbating with objects) have been shown to occur more frequently among children who have been sexually abused than among those who have not (Friedrich et al., 2001). But not all children who exhibit these types of behaviors have been sexually abused; conversely, many children who have been abused do not exhibit sexualized behavior (Silovsky & Niec, 2002). Nonetheless, sexualized behavior that interferes with other age-appropriate activities is a warning signal that a child may have other problems. The possibility that the child may have been sexually abused should be explored (but, if possible, without raising unnecessary concern). For example, two brothers, ages 3 and 5 years, were referred for assessment of suspected abuse because their grandmother caught them behind the sofa touching each other's penises. Among children at these ages, this behavior does not necessarily indicate sexual abuse.

Several sources that are available to clinicians are helpful in distinguishing normal sex play from that which might indicate a more serious problem. Gil and Shaw (2013), for example, provide a framework that focuses assessment of sexual behaviors on factors such as differences in age, size, and relative status or authority between the child and other person; consistency with developmental norms; and presence or absence of coercion. The Association for the Treatment of Sexual Abusers (ATSA) Task Force on Children with Sexual Behavior Problems (Chaffin et al., 2008) provides criteria for child sexual behaviors that fall outside the norm. This includes children under age 12 years who initiate behaviors involving sexual body parts (i.e., genitals, anus, buttocks, or breasts) that are developmentally inappropriate or potentially harmful to themselves or others. In order to make this distinction, the clinician should know developmentally appropriate sexual behavior for age (see Chapter 1), developmental stage and culture, whether the behavior has become a preoccupation for the child, whether the child responds to appropriate adult correction, and whether the behavior causes impairment and/or physical injury (Lyon & Silovsky, 2008).

Step 2: Initial Intake Interview

Parent Interview

When the purpose of assessment is to plan a treatment program, we usually interview the parents with the child present. In order to decrease the pressure on the child, we ask the parents to tell us the details of the trauma, while checking periodically with the child to verify the information. This informs the child that it is OK to talk about the trauma. Reactions of the parents and other family members to the trauma should be noted as an indication of their ability to provide support for the child. In addition, it may also be relevant to briefly assess the parents' own experience of trauma and reactions to the present trauma. If it appears that the parents are having strong reactions to the trauma, it may be more appropriate to have this discussion without the child present. In cases of sexual abuse, the parents should also be asked what sexuality education (if any) the child has received and what terms for sexual body parts are used by the family.

In gathering information about the child's traumatic reactions, diagnostic interviewing can be helpful in reviewing a range of symptoms the child may have experienced since the event. The Anxiety and Related Disorders Interview Schedule for DSM-5, Child and Parent Versions (ADIS-5 C/P; Albano & Silverman, in press), the most frequently used semistructured interview for anxiety disorders, has a section for Posttraumatic Stress Disorder that lists a range of traumas a child may have experienced, and the clinician asks the parent to describe what happened during the event. Subsequently, the parent is asked about potential PTSD symptoms and to rate the degree to which the symptoms have interfered with the child's everyday life. The Schedule for Affective Disorders and Schizophrenia for School-Age Children—Present and Lifetime Version DSM-5 (K-SADS-PL; Kaufman et al., 2016), also a semistructured interview, asks specific questions about PTSD and assesses current functional impairment of the child.

Child Interview

Establishing Rapport

Regardless of the referral question, the clinician must establish rapport with the child before discussion of sensitive issues will be productive. It is important that the child be informed of the reason for the interview, what will happen during the session(s), and what is expected of him or her. If the child was present in the initial interview with the parents, they should have an idea of the purpose for the visits. However, the clinician can still start the discussion by stating, "Your parents [teachers, doctors] are concerned that you have been having trouble with sleeping [touching yourself in public, not wanting to visit Daddy, not wanting to go to school, or whatever behavior is of concern]. I talk with lots of children who are having the same problem(s). Together we will try to understand what is troubling you and what we can do to make things better for you. Today I would like to get to know you better and ask you some questions about your school, friends, and family."

Development

Regardless of the referral question, the child's developmental status should be assessed—

formally, if there appears to be some concern in this area (e.g., the child has documented learning or language problems), or informally, if the child appears to be developing typically. Areas to assess include language comprehension and expression, intellectual level, memory skills, emotional status, and, for sexually abused children, knowledge of sexuality. This assessment provides a framework for deciding how questions will be asked, what child-appropriate materials (e.g., puppets, dolls, playhouse) will be used, and how the child's responses will be evaluated. Yuille, Hunter, Joffe, and Saparniuk (1993) suggest that the child be asked to describe two specific past experiences (e.g., a birthday or last Christmas), the details of which can be verified by parents. This allows the clinician to model the form of the interview (e.g., asking questions) and lets the child practice giving complete descriptions; however, the clinician should be aware that, for children under the age of 5 years, free recall of details is more difficult than it is for older children. Specific questions, such as "Tell me one thing you got for your last birthday," are easier for younger children to answer than open-ended questions, such as "Tell me about your last birthday."

The language used in the interview must be consistent with the comprehension level of the child. This is particularly important for most preschool children, who have trouble with vocabulary, multiple-syllable words, and syntax. The clinician should find out what the child actually understands, since children often think that they know the meaning of a word or a question when, in fact, they do not, or they have only a partial understanding. To assess the child's understanding, the clinician could request definitions or explanations rather than accepting "Yes" responses to "Do you understand?" When changing the topic, the clinician must make sure the child is aware of the transition.

The knowledge of sexuality in children who have been sexually abused or exhibit inappropriate sexual behaviors is an important area of development to assess. We assess knowledge in the following areas: body parts and functions (including sexual and nonsexual body parts), gender differences and gender identity, pregnancy and birth, sexual behavior (masturbation and sexual intercourse), and abuse prevention (e.g., "What are the private parts?"; "What should you do if someone tries to touch your private parts?"). Young children respond better to concrete stimuli, so we may use pictures of nude boys and girls and nude men and women as we ask questions in these areas. Assessment of sexual knowledge often elicits emotional reactions from a child who has been sexually abused, and sometimes spontaneously precipitates discussion of the child's sexual experience.

Assessment of the child's current emotional status, as well as status prior to the trauma, is important. The existence of recent emotional problems, such as unusual fears, anxiety, guilt, and poor self-esteem, can provide corroborative evidence regarding trauma. Additional information can be obtained by observing the child's play and noting unusual themes (e.g., aggression, fear, guilt), over- or underactivity, and intense or unusual reactions to ordinary stimuli (e.g., cars, due to car accident; forks, because one was embedded in the child's arm during a tornado; plates, because Dad hit Mom with them). The clinician can assess the child's general perceptions of family members through a variety of methods, and this information can be particularly informative if a family member is suspected of causing the trauma. With preschool children, family drawings or dollhouse play can be used as stimuli for discussion about what the child likes and dislikes about each person, and what kinds of things they do together. Extreme or intense reactions (fear, anger, hostility, etc.) to one or more specific family member(s) is especially important to assess. For instance, in a case we assessed, a 4-year-old girl was so afraid of her grandfather (who allegedly had molested her) that she could not draw a picture of him and refused to talk about him. At the same time, she was very open and expressed positive feelings about other family members. In another case, an 8-year-old boy was angry toward his father, because his father didn't go back into their burning house to save the family dog after the father barely got the son out and both received severe burns.

Questioning About Trauma

When the interview involves questions specific to traumatic experiences, the clinician should begin with a brief statement that he or she does not know what happened, so it would be helpful for the child to provide as much detail as possible. The interview should begin with open-ended questions (e.g., "Tell me about things that were happening the day of the tornado"; "Tell me about how you and your stepfather usually get along and things you do together"; "Tell me where you were driving to the day of the car accident"). This is important, because the types of questions asked are directly related to the accuracy and completeness of the child's recall, as well as the clinician's (and others') perceptions of the credibility of the child's report, which can be particularly important if the child will be presenting testimony in court. Preschool children require more direct and specific questions, but their responses to these questions may be difficult to interpret. In particular, "yes–no" questions are problematic for preschoolers, and the validity of their responses to such questions must be viewed cautiously (Gordon & Follmer, 1994). As the child is describing the experience, it is important to note his or her emotional expression during the discussion (e.g., whether the child remains calm, speaks in a monotone, or is very expressive in the discussion). This may help to assess the child's understanding of the event. In addition, it will be important to assess the child's current perceptions of the event, symptoms, and impairment in daily activities. For example, one 10-year-old child who had experienced a tornado hitting his neighborhood, ceased participating in any outdoor sports after the event, even though he had loved playing soccer, baseball, and tennis before the event happened.

Step 3: Observation of Behavior

Observation of the child's behavior during the interview is a critical component of the assessment, and we covered it to some extent earlier. It may also be helpful to observe parent–child interactions and use a coding system such as the Dyadic Parent–Child Interaction Coding System, Fourth Edition (DPICS-IV; Eyberg, Nelson, Ginn, Bhuiyan, & Boggs, 2013; see Appendix A).

Step 4: Further Assessment

Since child report of trauma may be more closely related to the child's functional impairment, especially for disasters (Furr et al., 2010), it is important to have the child complete screening measures for current symptoms and reactions to traumatic events. The Youth Self-Report (Achenbach, 2013; Achenbach & Rescorla, 2001b) for children ages 11–18 allows the child to report a range of problem behaviors the child may be experiencing. For reactions to traumatic events, the UCLA PTSD Reaction Index (Pynoos et al., 1998) has a child version for ages 7–12 years and adolescent version for youth over 13 years old. The CPSS (Foa et al., 2001) also has a child version for ages 8–18 years. In addition, it may be helpful to get a more subjective measure of the child's experience. Maladaptive responses and poor coping skills can be assessed in children ages 6 to 18 with the Roberts Apperception Test for Children (Roberts–2; Roberts & Gruber, 2005).

It may also be important to obtain information from the school about the child's academic progress and interactions with others. An interview with the teacher and/or school counselor may be helpful to determine whether the child is having academic difficulties and possibly exhibiting symptoms in the classroom or in other settings, such as the lunchroom and at recess. It would be particularly helpful if the teacher has seen changes in behavior since the trauma and is able to describe specifics of this change in the child. For example, in one case, an interview with the teacher of a 12-year-old helped to elucidate how the child's grades had gone down significantly over several months. However, the teacher did not realize that the change in grades was related to the child's reactions after witnessing domestic violence between her parents that resulted in her mother going to the emergency room with severe injuries. A description of peer interactions may also be helpful to ascertain whether the child plays primarily alone, is passive with peers, and/or is aggressive during interactions in different environments. The teacher could also complete the CBCL Teacher Report Form (Achenbach, 2013; Achenbach & Rescorla, 2001a, 2001b) to obtain information on a range of possible problem child behaviors. If possible, a school observation could enable the clinician to actually observe the child's behaviors across different academic settings and with different adults and peers.

Step 5: Collaboration with Other Health Care Professionals

Depending on the type of trauma the child has experienced, it may be important for the child to have a complete medical examination. If a medical examination has not already been done in the case of physical or sexual abuse or other traumas that have caused physical harm to the child, it is important to make a referral to the most appropriate physician.

Step 6: Communication of Findings and Treatment Recommendations

Before the findings of the evaluation can be communicated to parents and other professionals, the data gathered during the assessment must be evaluated. Organizing the background information collected according to the risk factors shown in Table 15.1 is helpful in discussing difficulties the child may be experiencing, as well as treatment recommendations. In a case in which the family has many risk factors or if CPS is involved with the family, recommendations regarding treatment or continued monitoring by CPS may be indicated. Communication of recommendations is a very important part of the process. Parents should receive information about symptoms, diagnoses, and discussion of intervention recommendations. In addition, if families have particular needs, especially for families that have been displaced by disasters or experienced decreased financial resources due to changes in family circumstances (e.g., the offending parent leaves the household), possible case management and/or resources should be recommended. Parents should be given general information about the impact of trauma on children's development and children's typical reactions to trauma, so that they have some idea of what to expect. Ways of handling inappropriate behaviors, such as sexual acting out or increased irritability or fears, should also be discussed. It is often important to have a written report to share with outside entities, particularly if the assessment is court ordered. The report should contain information on particular symptoms and diagnoses, so that the reasons why specific recommendations were made are clear.

Specialty Assessment of Maltreatment

A referral to determine whether maltreatment has occurred is very different from the assessment of the effects of maltreatment on children. To do it adequately, the clinician must have knowledge of typical child development, be familiar with recent research on memory and suggestibility, and be able to apply this knowledge to individual cases. In addition, the clinician needs to have experience working with CPS, police investigations, and the court system. For further resources in this area, consult the American Psychological Association Guidelines for Psychological Evaluations in Child Protection Matters (American Psychological Association, 2013), comprehensive assessment of different types of maltreatment (Bernet, 1997; Giardino & Alexander, 2005), and psychological assessment of maltreatment competencies (Damashek, Balachova, & Bonner, 2011). More communities have developed Child Advocacy Centers (CACs), which are best practice settings for these evaluations and include: (1) a multidisciplinary team approach for investigations; (2) specially trained child forensic interviewers; (3) victim advocacy and court education; and (4) developmentally friendly and safe, child-friendly environments (Cronch, Viljoen, & Hansen, 2006; Jones, Cross, Walsh, & Simone, 2005; Lamb, La Rooy, Malloy, & Katz, 2011). These types of settings can assist in gathering the necessary information to address questions of maltreatment.

Table 15.3 summarizes the type of information gathered during these evaluations.

TABLE 15.3. Framework for Organizing Assessment Data and Evaluating Alternative Explanations for Abuse Allegations

Nature and context of the behavior

- What is the physical/sexual/neglectful behavior described?
- What were the conditions under which the behavior occurred?
- How long ago did the reported event(s) occur?
- What was the motivation or intent of the behavior?

Characteristics of the initial disclosure

- Under what conditions was the disclosure made?
- Was the initial report spontaneous or prompted?
- What motivated reporting to authorities?
- What was the response of the parent(s), especially the mother?
- To what extent have parents questioned the child?
- What factors might have influenced the child's report?

Subsequent interviews

- How many times was the child interviewed and by whom?
- Were the interviews recorded? If so, are transcripts available?
- What factors might have influenced the child's responses to these interviews?
- Did the interviewer(s) consider alternative explanations for the child's responses?

Characteristics of the child

- What is the child's age or developmental level (language and cognitive skills, sexual knowledge)?
- Are there preexisting emotional, behavioral, or developmental problems?
- Does the child show symptoms of distress or sexualized behavior?
- What are the child's life circumstances?

Characteristics of the alleged perpetrator

- Is there evidence of psychopathology?

- Is there a history of alcohol or drug abuse?
- Is there evidence of significant life stress?
- What skills are used to cope with stress?
- Is there an appropriate sexual outlet?
- Is there a history of antisocial behavior?

Characteristics of the family

- Are there divorce and/or custody issues?
- Is the nonabusing parent able to protect the child?
- Does the family have the necessary resources?
- Is the family socially isolated?
- Is there a history of inadequate parenting?
- What are the family's attitudes/values about sexuality/punishment?
- Is there significant stress or instability?

TREATMENT OF TRAUMATIC EVENTS

Because children who have experienced traumatic events are a heterogeneous group, no single treatment protocol is appropriate for all of them. A developmental approach is essential in treating such children, however. Developmental factors influence all aspects of treatment, including the effects of trauma and prognosis for treatment, treatment issues and approaches, possible placement and protection decisions, and expectations for a child as a witness in legal proceedings. Because children understand the world differently at different ages, their understanding of experiences is a function of their developmental level and will change as they gain new cognitive abilities. Thus, a child who has experienced trauma will probably "reprocess" this event as cognitive capacity increases. Furthermore, developmental issues interact with treatment issues. Trust, for example, is a critical developmental issue for preschoolers and is likely to be a focus of treatment for this age group, whereas issues involving interpersonal and intimate relationships are more important for adolescents.

Intervention Strategies Soon after Trauma

Most children have some type of reaction directly following a traumatic event. However, less research has been done about what may be the best intervention for children soon after the event. Generally, interventions for children should be brief and present-focused, and help to screen children with more severe reactions in order to prevent an increase in problematic symptoms (La Greca & Silverman, 2009). In addition, it is important for adult caregivers of the child (including parents, teachers, other health professionals) to be able to reassure and monitor children to identify any major symptom reactions. For example, following a natural disaster, clinicians should provide children with information about the disaster, listen to their reactions, and help caregivers set up a safe environment and structure the day so that children can get back to a more normal routine.

Some programs have been formed to intervene in the early weeks after a trauma. Psychological first aid (PFA) was developed as an immediate response service to children, adults, and families, after a disaster or terrorist event (Vernberg et al., 2008). It uses five basic principles that have received empirical support for adapting to a trauma: (1) promoting a sense of safety, (2) promoting calmness, (3) promoting a sense of self and community efficacy, (4) promoting connectedness, and (5) instilling hope. Each of the intervention strategies provides specific recommendations for working with children and families. This approach also helps clinicians identify children and families that are having more severe reactions to connect them with further treatment services. In addition, psychoeducational materials and factsheets have been shown to help normalize reactions posttrauma for children and their families (La Greca & Silverman, 2009). These materials have been developed and are readily accessible on the Internet through organizations such as the National Child Traumatic Stress Network (*www.nctsn.org*), American Psychological Association (*www.apa.org*), and the American Red Cross (*www.redcross.org*). Another program, critical incident stress debriefing (CISD), was devised as a group intervention often delivered in field settings to address trauma symptoms by providing ways for victims to express their feelings and normalize responses in a supportive context (Chemtob, Tomas, Law, & Cremniter, 1997). However, this program does not have empirical support, and there have been reports of possible negative effects, such as retraumatizing children. In addition, due to negative effects of the debriefing, families did not seek additional services (La Greca & Silverman, 2009; McNally, Bryant, & Ehlers, 2003). One of the main differences between this approach and the others we have discussed is that it may not individualize the intervention to different reactions, and the structure within the group format may compel people to participate when they may not be ready, which may cause more problems for families.

Interventions after Symptoms Develop

Trauma-focused cognitive-behavioral therapy (TF-CBT) has been used effectively for a range of symptoms that children may evidence after a traumatic event (for a Web-based learning course, see *www.tfcbt.musc.edu*). TF-CBT combines aspects of CBT to build skills, so that children are then able to work on the main trauma component, the *trauma narrative*. Cohen and Mannarino (2008) outline the different components of TF-CBT that can be used flexibly with children and parents who have experienced trauma, depending on the different symptoms and difficulties shown: (1) psychoeducation about the treatment approach and the particular trauma; (2) parenting component for parents to learn skills on how to deal with difficult behavior; (3) relaxation skills; (4) affective expression and modulation skills; (5) cognitive coping skills; (6) the trauma narrative and cognitive processing of the trauma experience; (7) *in vivo* mastery of trauma reminders; (8) conjoint child–parent sessions; and (9) enhancement of future safety and development. The components are expressed in the acronym PRACTICE to remind the family to work on skills outside of treatment sessions. Although there is a format suggested by the program that builds coping skills to address traumatic symptoms, the therapist has flexibility regarding when each of the components is introduced and how long it may take to go through each one of them. For example, if a child is not showing disruptive behavior, the therapist may not need to go through the "parenting component."

TF-CBT has shown the strongest empirical evidence for treatment across different traumatic experiences, with many of the studies conducted in real-world or hospital settings (Silverman, Ortiz, et al., 2008). Although most studies have shown that TF-CBT lessens symptoms of PTSD in older children, it has also been shown to work with children ages 3–6 years (Scheeringa, Weems, Cohen, Amaya-Jackson, & Guthrie, 2011). For younger children, ages 3–4 years, some changes may need to be made in the protocol, so that some of the verbal tasks are more feasible, with visual aids and drawing rather than writing (Sheeringa et al., 2011). Not only has TF-CBT lessened children's traumatic reactions, it has also been shown to decrease parent's levels of depression and distress related to abuse, as well as increase their support of their child and appropriate parenting practices (Cohen, Deblinger, Mannarino, & Steer, 2004). However, if the parents are experiencing significant symptoms of trauma, PTSD, or other psychiatric symptoms that impair their own functioning, it is important for them to seek their own therapy (Cohen, Mannarino, & Deblinger, 2017).

Intervention with the Child

In general, behavioral and cognitive-behavioral interventions have been found to be more effective than other approaches in treating children who have experienced trauma, across different types of traumatic experiences (Silverman, Ortiz, et al., 2008). The focus of these interventions is on alleviating specific trauma-related symptoms by monitoring and modifying problematic thought processes and/or behaviors, and by increasing such skills as assertion, socialization, anxiety management, anger control, problem solving, and communication. It is also stressed that abuse prevention training should be part of any treatment program for children who have been maltreated—not only to decrease revictimization but also to provide secondary benefits in other areas (e.g., increasing self-esteem and decreasing fears) (O'Donohue & Elliott, 1992).

Helping the child feel important and in control is a primary goal for the first treatment session, so the clinician should take considerable time to talk about the child's interests and activities, play games, draw, and have fun. Using reflective comments and praise, instead of asking many questions, is essential to making the child feel comfortable. One way of communicating to the child that he or she is an important, valued person is for the clinician to keep all contracts and appointments consistently and on time. For example, if the child is told that he or she can choose a prize out of the prize box at the end of the session, or that next time the clinician will remember to bring drawing material, the clinician must be sure to keep these promises. If the child wishes, the parent is invited to stay in the room, but the clinician must be careful not to let the focus be on the adult during the session. Before the child and parent leave, they should be told what to expect in the next session, and both should be given the clinician's business card in the event that either needs to call before the next session.

Feelings and Coping Skills

Children's knowledge of feelings and their ability to cope with them are dependent on their developmental status, so assessment of what they currently understand is essential prior to attempting to process feelings about a trauma. We often begin by making a "feelings book," in which various feelings are described and illustrated. Older children enjoy making lists of things that make them happy, sad, angry, and so on, as well as ways to cope with these feelings. Younger children can cut out pictures depicting various feelings and paste them on each page. They can then develop and be reinforced for more appropriate strategies to use when they feel different ways (e.g., angry, sad, or afraid). Children can also draw pictures of themselves with different feelings represented by different colors, then talk about situations that give them those feelings and ways to cope with the feelings. Various techniques are effective in helping a child deal with feelings about a perpetrator of trauma such as abuse. As an example, a 6-year-old girl who was not able to talk about her feelings was still able to act out her feelings each week in her play with dolls in the dollhouse.

In the case of abuse or other violence, an older child may find it helpful to dictate or write a letter to the perpetrator (which can be sent or remain unsent, depending on the circumstances). A child often wants to know, and should be told, what has happened to the perpetrator. The clinician should not appear surprised to hear concern or affection expressed by the child for the perpetrator. Especially in a case of incest, the child should be supported in understanding that he or she can have both negative and positive feelings toward the perpetrator, but that the behavior of the perpetrator was wrong and not the child's fault.

The Trauma Narrative

The trauma narrative is a key aspect of TF-CBT that is used with children to lessen symptoms of trauma. The main goal of the trauma narrative is to lessen the negative emotions surrounding the event, and help the child to gain more control and efficacy and find ways to move forward in his or her life. This is achieved by exposing the child to aspects of the trauma, and over time, lessening his or her reactions to the stressor. Although the trauma narrative is essential, it is usually started after the child has built other coping strategies to support the difficult work of the narrative (Cohen & Mannarino, 2008; Cohen et al., 2017). A metaphor that has been used with children and families to introduce the trauma narrative is falling and skinning one's knee. It may be introduced to the child and parent this way: "When you skin your knee, you could just put a Band-Aid on it and hope it gets better. However, doing this may cause an infection in your knee. What works better is to clean the skinned knee and put medicine on it. Talking about the trauma is just that: cleaning out the wound so that it can heal." Trauma narratives can be used with multiple types of traumas the child has experienced.

If the child has difficulties talking about the trauma, it may help to read books about other children's experience of trauma in difference situations, particularly traumas that are similar to the one the child experienced (Cohen et al., 2017). Some clinicians may feel uncomfortable having children talk about their trauma and may feel this will retraumatize them. However, the child has been referred for treatment because the memories of the trauma are affecting emotional and/or behavioral functioning. Helping children discuss their traumatic experience assists in normalizing the experience and healing the emotional wounds (Cohen & Mannarino, 2008). Discussing these experiences can also be very difficult for clinicians, so it is recommended that the clinician practice appropriate self-care strategies and be ready to respond to different situations the child may report.

Personal Safety Skills

Teaching self-protection skills to children who have experienced trauma is essential to restoring a sense of personal control and power. Children should be provided with the opportunity to practice skills in role-play situations. Especially with maltreatment, the importance of the child telling someone if there are any further incidents should be recognized, and a list should be made of people the child would feel safe telling. Children should also be told that it is not their fault if they cannot get away or make someone stop hurting them. The important thing is to tell someone, so that person can intervene to protect them. Those children who have experienced natural disasters can have a role in setting up their families' First Aid and Emergency Preparedness kit, and help plan for safety if there is another fire/tornado/hurricane while they are at home or school.

Sexuality Education

The importance of sexuality education cannot be overemphasized. Children today are bombarded with sexual messages from films, advertising, television situation comedies and soap operas, the Internet, and even the nightly news report (Gil & Shaw, 2013). Education about sexuality can help to put it into proper perspective, assist children in making sense out of confusing messages, and increase the chances that they will behave responsibly with regard to their own sexuality. Contrary to some beliefs, provision of sexual information is actually associated with postponement of sexual activity by teenagers and more responsible sexual behavior when they do become sexually active (Coley & Chase-Lansdale, 1998).

By understanding normal sexual development, parents and clinicians can more easily determine what information is needed by children as they grow and develop, and understand how best to respond to children's sexual behavior. One must keep in mind that it is not sufficient to teach the facts about sex; attitudes and values should also be taught. Ryan (1997, 2000) suggests that all sexual behaviors exhibited by children, especially behaviors that appear deviant, require some adult response. Because children inevitably look to adults for guidance, failure to respond to sexual behaviors can easily be interpreted by the children as acceptance or approval. Ryan proposes that goals for sexuality education should include teaching children to (1) communicate openly about sex, (2) recognize and respond empathically to the needs of others, and (3) take responsibility for their own behavior. This can be done by nonjudgmentally describing behaviors as children engage in them, telling children how those behaviors make others feel, and encouraging children to manage their behavior in the future.

Giving children information about sexuality helps them to protect themselves and results in a sense of empowerment. We typically begin by assessing what a child already knows about normal sexuality (body parts and functions, private parts, sexual behaviors) and the terms the family uses for sexual parts and functions. We then provide the child with appropriate information, keeping in mind that children who have been abused have often had precocious sexual experiences and may need information that would ordinarily be more appropriate for older children. Reading a book about sexuality often elicits further questions and comments from a child, and allows the clinician to provide reassurance and information directly related to the child's experience of sexual abuse. Sharing the sexual material with a parent before the session is important, so that the clinician can clarify any concerns the adult may have about the information. It is equally important for the clinician and child to briefly review the material covered with the parent(s) at the end of the session. This confirms for the child that it is acceptable to talk about these topics. Any concerns that the parent(s) may have about the child's sexual behavior can be discussed at this time, and plans may be made to handle any inappropriate sexual behavior. It is also helpful to send the sexuality education materials home with the family.

Group Treatment

TF-CBT has been adapted to work in a group setting in schools with children exposed to community violence. Group cognitive-behavioral intervention for trauma in schools (CBITS) has shown to be effective for children by targeting particular posttrauma, anxiety, and depression symptoms (Silverman et al., 2008; Stein et al., 2003). The group focuses on psychoeducation about the trauma, graded exposures with writing and/or drawing, cognitive and coping skills training, and social skills interventions. After a group intervention, it was found that not only did children's trauma symptoms decrease, but also depression, psychosocial dysfunction, and classroom behaviors, including reduced acting-out behaviors, shyness, and learning issues (Stein et al., 2003).

Intervention with the Parents

Time should be set aside at each session to talk with parents about the gains that have been made in session. It is most useful if the child can discuss or demonstrate to parents what he or she has learned in the session and ways to apply the skills at home. In addition, TF-CBT has a parenting component for the clinician's work with parents who are having difficulties managing their child's disruptive behavior. The parents are given instruction in parenting skills, such as increasing positive time with their child, giving clear instructions, and setting appropriate rewards and consequences. For younger children, parent–child interaction therapy (PCIT) has been shown to improve outcomes for children and families, particularly those for children who have been exposed to interparental violence (Timmer, Ware, Urquiza, & Zebell, 2010), and/or abused by their parents (Chaffin et al., 2004). A core aspect of PCIT that often makes its outcomes more effective for families is that the program not only teaches parents new skills but it also has parents and children practice and hone new skills in session. The clinician then directly coaches parents, either in person or through a "bug-in-the-ear technique," on how to improve skills they are practicing (see Chapter 10). This aspect of change and the resulting positive changes in the parent–child relationship has been shown to reduce behavior problems in families (Chaffin et al., 2004).

It is also important that parents are involved as children develop their trauma narrative. Parents need to support the skills the child has learned in developing his or her narrative. Working closely with parents on their own concerns about the trauma narrative technique and the outcome of the trauma will help prepare them to discuss these difficult situations with their child. Often families have dealt with the trauma by not discussing it, and hoping the fear and pain will go away. The trauma narrative helps the family to face the trauma and build resilience to its effects. Parents who are extremely upset, to the extent that they are temporarily unable to meet the child's needs, may need separate sessions to express and work through their feelings about the trauma and receive support. The parents may learn coping skills as the child is learning them so that they develop ways to handle the trauma and also support the child. If available, one-way mirrors allow parents to observe their child's sessions, which can also help them come to terms with the trauma and be able to talk more appropriately with their child about it. They can also model coping statements the clinician uses about the trauma. As treatment progresses, a main goal is for the child to be able to share the trauma narrative with parents as a part of the change process. This may be done in phases: (1) The child writes the trauma narrative down, (2) the therapist reads it aloud to the child, (3) the child reads it aloud to the therapist, (4) the therapist reads it aloud to the parent, and (5) the child reads it aloud to the parent.

Working with Children Who Have Been Sexually Abused

Sexual abuse is fundamentally a relationship problem. Thus, a major focus in treatment of sexual abuse involves correcting failed adult–child relationships and, in instances of incest, failed relationships that may span generations. Parent work in cases of incest is necessarily different from that in cases involving extrafamilial abuse, and we give a brief overview of the important issues to consider in planning treatment for these two types of cases.

In a case of incest, the nonabusing parent (usually the mother) is often either overtly or covertly blamed for collusion with the perpetrator. This view can set the stage for the clinician to take a negative attitude toward the mother and, consequently, to decrease her involvement in the therapeutic process. It is more helpful to the process for the clinician to take a neutral attitude toward mothers. A clinician should be willing to understand the abuse from the mother's perspective in order to help her cope with the situation. Factors that have been found to help mothers cope with stress include social support, access to financial resources, problem-solving skills, and a realistic nondistorted belief system.

TF-CBT has been shown to work effectively for children who have been sexually abused, exhibiting better outcomes than play therapy, nondirective supportive therapy, and supportive child-centered therapy, and to have results similar to those in CBT family therapy (Cohen, Mannarino, & Knudsen, 2005). In addition to parenting skills targeted in this program, work with parents should include helping them provide a safe, consistent, and predictable environment for their child. In instances in which a child has ongoing contact with a perpetrator as approved by CPS, a series of family meetings (including the perpetrator) should be held to set some ground rules for appropriate and inappropriate touching, to provide ongoing support for the child, and to monitor the situation over an extended period of time.

In a case of extrafamilial abuse, the clinician is still working with an adult–child relationship problem, but the parent or parents are not likely to be dealing with the stress of the disintegration of the family (and therefore are usually more available to support the child). Friedrich (1990) points out, however, that sexual abuse usually is not a random event; therefore, even in cases not involving incest, something sets the stage for the abuse to occur. It may be that the mother has also been abused, or that the parents were not involved enough in making child care arrangements or monitoring the child's safety and well-being. Parents may need help in dealing with their guilt regarding the child sexual abuse, particularly if they have been abused themselves or have inadvertently contributed to the abuse in some way.

In the hope of encouraging more clinicians to work with sexually abused children, we have developed a protocol to provide immediate and potentially time-limited treatment for children. The protocol is based on Finkelhor and Browne's (1986) model that uses four factors to help explain how children cognitively process the diverse features of sexual abuse and therefore show a range of emotional and behavioral responses. The four factors are *betrayal, stigmatization, traumatic sexualization,* and *powerlessness.* There is empirical support for this model (Mannarino & Cohen, 1996a, 1996b; Mannarino, Cohen, Deblinger, Runyon, & Steer, 2012), and we have found it to be particularly helpful in understanding the child's perceptions of the abuse experience and the resulting symptoms.

The protocol covers many of the critical treatment issues and helps the clinician determine the need for long-term treatment. This approach is summarized in Table 15.4. Although we have found all the components to be essential, the order in which they are included in treatment (with the exception of the first two components) is not fixed. Furthermore, the number of treatment sessions may vary, depending on the needs of the individual child. It often takes six to eight sessions, but we have done it all in one marathon session when we had only one opportunity to see a child. It is important to note that this treatment format is recommended for children whose sexual abuse has been substantiated.

TABLE 15.4. Treatment Issues and Intervention Strategies for Sexually Abused Children

Age	Traumatic sexualization	Stigmatization	Betrayal of trust	Powerlessness
0–6 years	• Sexuality education • Limits on sexual acting out • Reinforcement of appropriate interaction • Role plays	• Reinforcement of positive characteristics • Group treatment	• Setting and keeping routines • Reinforcing independence • Providing a safe environment	• Treatment of nightmares and sleep problems • Prevention skills • "What if" exercises • Role plays • Identifying feelings
7–11 years	• Sexuality education • Cognitive-behavioral techniques for assertiveness training and gaining control • Reinforcement of age-appropriate sexual behavior • Social skills training	• Group treatment • Age-appropriate activities	• Making a book—"Whom Can I Trust?" • Cognitive restructuring for depression • Teaching problem-solving skills regarding trust issues	• Prevention skills • Assertiveness training • Letter to abuser • Channeling aggression • Support success in school activities
12–18 years	• Sexuality education • Cognitive-behavioral techniques for assertiveness training and gaining control • Role plays of relationship skills • Social skills training • Relaxation training	• Group treatment • Age-appropriate activities	• Cognitive restructuring for depression • Group trust exercises • Using problem-solving skills regarding trust issues • Listing of people who can be trusted and why	• Prevention skills • Assertiveness training • Letter to abuser • Role plays of relationship skills • Support success in school activities • Support independence

Intervention in the Environment

Intervention in a child's environment in a case of trauma can involve collaboration with social services professionals to ensure the child's safety and well-being. In addition, it can be very helpful for mental health professionals at the school to be aware of difficulties the child is experiencing so that a plan can be set up to address academic difficulties. Sometimes it is important for children who have experienced trauma to have a "safe place" they can go in the school or someone to talk to if they are feeling sad or upset, especially if the traumatic event occurred in the school setting. At times, children may need more formal services to be placed in smaller classrooms for one-on-one interactions in a calmer or therapeutic environment.

Intervention in Medical/Health Aspects/Medication

A physical examination by the pediatrician should indicate whether intervention is needed in this area. The child should receive treatment for any sexually transmitted diseases he or she may have contracted or for the effects of physical abuse. In an article in the *American Academy of Child and Adolescent Psychiatry*, Cohen et al. (2010) reported research findings regarding medications for trauma symptoms in children, stating that selective serotonin reuptake inhibitors (SSRIs) may be beneficial to reduce child PTSD symptoms; however, they recommend that the medication should not be used alone but after psychotherapy is started (e.g., TF-CBT) and only if the child's symptoms suggest a need for additional interventions. In addition, SSRI treatment may be helpful for comorbid conditions such as major depressive disorder, general anxiety disorder, and obsessive–compulsive disorder. There is also limited evidence to suggest possible treatment of children using alpha-and beta-adrenergic blocking agents, novel antipsychotic agents, non-SSRI antidepressants, mood-stabilizing agents, and opiates (Cohen et al., 2010).

Preparation for Court

Since traumatic experiences often involve threatened or actual violence to children, there is a higher likelihood of legal intervention and court involvement. Both adults and children need to know what to expect from a court appearance. Depending on the case and the resources in the community, this can be done by the legal team, a victim advocate, CAC, or other professionals with this specialty experience (Lamb et al., 2011). A visit to the courtroom should be arranged shortly before the start of a trial; the child should be told who will be there, where these people will sit, what will happen and in what order, and what is expected of him or her. Children could also make "homemade" books with simple line drawings that are specific to a child's experience and understanding of going to court; it can also be individualized to the court system in the child's area. In addition, a person who is well known and liked by the child (a teacher, family friend, neighbor, social worker, or guardian ad litem) could be designated as a support person to sit in the front of the courtroom where the child can see him or her during the court process.

CASE EXAMPLE: SEXUAL ABUSE

Step 1: Initial Contact

Mrs. Comfort called to request treatment for her two grandsons, ages 9 and 5. A few months prior to this contact, the 9-year-old, John, had told Mrs. Comfort, his maternal grandmother, that his father had been sexually abusing him and his little brother, Jimmy. John described oral and anal sex, as well as mutual masturbation, and reported that his father had said he would kill him, his brother, and his grandmother if he told. This child had recently returned home from a 6-month inpatient stay for severe depression. During hospitalization, no one had asked him about the sexual abuse, nor did he tell anyone. He told his grandmother that he "got better" so he could come home to protect his little brother from his father. Mrs. Comfort took the child to CPS, and an investigation substantiated the abuse.

The two boys had been living with their father, who was a local magistrate, and their stepmother. The boys' mother had died 2 years previously. Given the father's position in the community and the lack of evidence for abuse of Jimmy, the younger boy remained in the home while John was placed in the custody of Mrs. Comfort. CPS asked that the 5-year-old be brought to the local CAC for a forensic evaluation. The stepmother brought Jimmy, who was found to have anal lacerations and venereal disease. During the course of this evaluation, the stepmother admitted that the father had indeed abused the children and had been doing so over a long period of time. Both children were then placed in the custody of Mrs. Comfort. The father was charged with sexual abuse, tried, found guilty, and sentenced to two consecutive life terms.

The purpose of the referral was to determine the emotional status of both children and provide the children and the grandmother treatment due to their current level of impairment.

Step 2: Initial Intake Interview

Parent Interview

Mrs. Comfort, the CPS worker, and both boys were present for the initial interview. The CPS worker, at Mrs. Comfort's request, related what had been done and what was known about the abuse. They also discussed the court preparation the boys had received from the CAC and also the stress they experienced during this process. The boys were given some toys to play with during the interview. As they were playing, they often added information to the CPS worker's report. Both boys expressed a great deal of anger at their father, but they were also quite fearful that he would come to the grandmother's house and kill all of them. Mrs. Comfort assured them that the house was secure and that she was quite capable of protecting them, especially since their father was now in prison. She transported the children to and from school, and outside of school they rarely left her side. Because they were both having nightmares, she also allowed them to sleep with her. Mrs. Comfort presented as a warm, supportive person who had struggled, against the father's wishes, to keep contact with her grandchildren since the death of her daughter.

Child Interview

The boys were seen separately for their initial interviews. John was able to share difficult information easily. He described with great sadness the death of his mother, who had been rushed to the hospital in a diabetic coma. John felt she had protected him from his father. It was after her death that the father began to abuse him. Until he was hospitalized, John did not feel that his younger brother had been abused. He found it difficult to discuss the specifics of the abuse, and he was not pressured to do so. Although John was afraid of what his father might do, he said he felt safe both at school and when he was with his grandmother. He appeared relieved by having told about the abuse and was able to express his anger toward his father, despite his fear of him. Although he admitted it was "scary," John stated that he was glad he testified in court so that his father would never be able to do this again.

Assessment of John's knowledge of sexuality revealed that he used slang terms for sexual body parts and was very knowledgeable about adult sexual behavior. He also knew about private parts and was forceful in stating that he would tell his grandmother or teacher if anyone tried to touch his private parts.

Five-year-old Jimmy refused to separate from his grandmother; as a result, she was included in this session. Jimmy was active and easily distracted by any noise or sudden movement on the part of the clinician. He was reluctant to talk about his father but stated that he missed being at home and playing with his toys. In playing with the dollhouse, Jimmy carefully avoided including the father doll in his play. When the clinician introduced the father doll, he turned away and refused to continue his play. Attempts to get him to play with family dolls resulted in his hiding behind a chair and refusing to come out until the father doll was put away.

Assessment of knowledge of sexuality indicated that Jimmy had slang terms for sexual body parts and did not know about private parts or what to do if someone tried to touch them. He also did not have any knowledge of adult sexual behavior, pregnancy, or birth. It was significant that he became very quiet or left the table when he saw pictures of nude adult males or males engaging in child care activities (bathing, putting a child in bed, etc.).

Step 3: Observation of Behavior

This case included only observations during clinic sessions. The boys appeared to have positive and warm interactions with their grandmother.

Step 4: Further Assessment

Additional assessment of the children's present emotional status was part of the treatment process. Their teachers were asked to complete the CBCL. Both boys had significantly high scores on the Internalizing scale of the CBCL, with significant fears and physical complaints. In addition, phone calls were also made to each of the boys' teachers to determine their academic and social functioning within the school setting. They were reported to be well liked by their peers and "no problem" to their teachers. However, the teachers indicated that the boys often came to school very tired, appeared sad, and on many days did not want to join in academic tasks or social activities. They had noticed a dramatic improvement in the boys' affect, alertness, and willingness to participate in activities in the short time since they had begun living with their grandmother.

Step 5: Collaboration with Other Health Care Professionals

The boys had already had a medical evaluation, and Jimmy was being treated for venereal disease.

Step 6: Communication of Findings and Treatment Recommendations

Prior to beginning treatment, the clinician met with Mrs. Comfort and the CPS worker to summarize the assessment findings. They were told that John appeared to be resilient and was using a lot of good skills to cope with a very difficult situation. He reported feeling well-loved and protected by his grandmother, and was clearly very attached to his brother. Jimmy, on the other hand, was seen as emotionally vulnerable, with few coping skills available with which to deal with the trauma. Unlike John, he needed a great deal of support from his grandmother. Mrs. Comfort was described as having a good grasp of the children's needs and interacted with them in a very appropriate manner. The boys obviously cared for her, were affectionate with her, and responded well to her requests and discipline.

Course of Treatment

John and Jimmy were seen together for treatment, and Mrs. Comfort participated in the last 15 minutes of each 1-hour session. The course of six sessions followed the sexual abuse treatment program outlined earlier in this chapter. The children made "feelings books" to identify and talk about feelings, and to learn appropriate ways to express their feelings. They also were engaged in a sexuality education program that taught them the correct names for body parts and functions, who may touch their private parts and when, and personal safety skills. During this time, both boys were able to talk more openly about the abuse and to give details of what had happened to them, how they felt, and what they would do in the future if anyone tried to abuse them.

Mrs. Comfort had a good support system in the community and was handling the situation well. She needed little help from the clinician. She was given books on sexuality education and abuse prevention, as well as the children's "feelings" exercises to take home, so that she could talk with the boys about them throughout the week. She was also given information on sexual abuse and its effects on children. The clinician supported her appropriate parenting skills. The children's problem behaviors steadily lessened over the weeks, and Mrs. Comfort reported they continued to discuss positive and negative emotions they were experiencing with her. In addition, the school social worker checked in with them at least once a week to help them in using their new coping skills in the classroom. Mrs. Comfort and the clinician decided to discontinue treatment at this time due to the boys' improvement. However, the clinician discussed with her the need to continue to monitor their symptoms and if they had increased symptoms related to their mother's death, their sexual abuse, relationship with their father, or during developmental transitions (e.g. adolescence), to seek out treatment again.

RESOURCES FOR CLINICIANS

Cohen, J. A., Mannarino, A. P., & Deblinger, E. (2017). *Treating trauma and traumatic grief in children and adolescents* (2nd ed.). New York: Guilford Press.

National Child Traumatic Stress Network
www.nctsn.org

Trauma-Focused Cognitive-Behavioral Training
http://tfcbt.musc.edu

RESOURCES FOR PARENTS

Holmes, M. (2000). *A terrible thing happened: A story for children who have witnessed violence or trauma.* Washington, DC: Magination Press.

Koocher, G. P., & La Greca, A. M. (2011). *The parents' guide to psychological first aid: Helping children and adolescents cope with predictable life crises.* New York: Oxford University Press.

Mark, B. S., Layton, A., & Chesworth, M. (1997). *I'll know what to do: A kid's guide to natural disasters.* Washington, DC: American Psychological Association.

Straus, S. F. (2013). *Healing days: A guide for kids who have experienced trauma*. Washington, DC: Magination Press.

National Child Traumatic Stress Network: Resources for Parents and Caregivers
www.nctsn.org/resources/audiences/parents-caregivers#q8

Trauma-Focused Cognitive Behavioral Therapy app
Search for “TF-CBT Triangle of Life” in the Apple iTunes store or Google Playapp

APPENDIX A

Description of Assessment Instruments

PARENT RATING SCALES

Behavior Assessment System for Children, Third Edition—Parent Rating Scale (BASC-3-PRS; Reynolds & Kamphaus, 2015)

The BASC-3-PRS is a norm-referenced, broad-based measure of child functioning. It has three forms composed of similar items and scales for preschoolers (ages 2–5 years), children (ages 6–11 years), and adolescents (ages 12–21 years), which take a broad sampling of a youngster's adaptive and problem behavior in home and community settings. It takes about 10–20 minutes to complete. There are four factors: (1) Externalizing (Aggression, Hyperactivity, and Conduct subscales), (2) Internalizing (Anxiety, Depression, and Somatization subscales); (3) Behavioral Symptoms Index (Attention Problems, Atypicality, and Withdrawal); and (3) Adaptive (Adaptability, Social Skills, Leadership, Functional Communications, and Activities of Daily Living subscales). It also includes indicators of clinical and executive functioning difficulties. The BASC-3-PRS is available from Pearson, Inc., P.O. Box 599700, San Antonio, TX 78259; 800-627-7271; *www.pearsonclinical.com.*

Child Behavior Checklist (CBCL; Achenbach, 2013; Achenbach & Rescorla, 2001a, 2001b)

The CBCL is a broad-based, norm-referenced measure of child functioning across a range of problem behaviors. The parent CBCL has two versions, one for preschoolers (ages 1½–5 years) and another for children and adolescents (ages 6–18 years). The CBCL takes about 10–20 minutes to complete. Eight syndrome scales make up three global scales: Externalizing (Rule-Breaking Behavior, Aggressive Behavior), Internalizing (Withdrawn/Depressed, Somatic Complaints, Anxious/Depressed), and Total Problems (uses other scales plus Social Problems, Thought Problems, Attention Problems). The CBCL also includes DSM-oriented scales that map onto diagnostic categories. The CBCL can be obtained from the Achenbach System of Empirically Based Assessment, 1 South Prospect Street, St. Joseph's Wing (3rd Floor, Room 3207), Burlington, VT 05401; 802-656-5130; *www.aseba.org.*

Child and Adolescent Symptom Inventory–5 (CASI-5; Gadow & Sprafkin, 2013)

The CASI-5 is a behavior rating scale that is modeled on symptom items for the DSM-5 for children ages 5–18 years. There are parent and teacher rating forms, with items grouped by description for diagnoses, which can be completed in about 10–15 minutes. There are Symptom Count, Impairment, and Clinical Cutoff scores, as well as Symptom Severity and Impairment questions to assist in making a possible diagnosis and identify symptoms for treatment planning. It may be used to help screen for certain diagnostic symptoms that can then be followed up with a semistructured interview. The CASI-5 can be obtained from Checkmate Plus, P.O. Box 696, Stonybrook, NY 11790-0696; 800-779-4292; *www.checkmateplu.com.*

Eyberg Child Behavior Inventory (ECBI; Eyberg & Pincus, 1999)

The ECBI consists of 36 common behavior problems for children ages 2–18 years and can be completed in 5–10 minutes. Parents rate each behavior on a 7-point Intensity scale, and also indicate whether the behavior is a problem for them. Clinical significance across all ages is usually determined by Intensity scores of 132 or higher and Problem score of 15 or more. The ECBI is available from Psychological Assessment Resources, Inc., 16130 North Florida Avenue, Lutz, FL, 33549; 800-727-9329; *www.parinc.com.*

Parenting Stress Index, Fourth Edition (PSI-4; Abidin, 2012)

The PSI-4 provides a measure of the degree of stress in the parent–child relationship as rated by parents of children 12 years or younger. The PSI-4 takes about 20 minutes to complete, and items are summed to form 13 subscale scores in two main domains describing the sources of the stress: Child domain (Distractibility/Hyperactivity, Adaptability, Reinforces Parent, Demandingness, Mood, Acceptability), and Parent Domain (Competence, Isolation, Attachment, Health, Role Restriction, Depression, Spouse/Parenting Partner Relationship). The Life Stress scale is optional and measures stress experienced by parents outside the parent–child relationship. There is also a composite Total Score and a defensive responding check. A short form is also available. The PSI-4 identifies children at risk for emotional and behavioral problems, as well as parents in need of parent education or professional assistance, and is sensitive to changes with treatment, so can be used as an outcome measure. The PSI-4 is available from Psychological Assessment Resources, Inc., 16204 North Florida Avenue, Lutz, FL 33549; 800-727-9329; *www.parinc.com.*

Stress Index for Parents of Adolescents (SIPA; Sheras, Abidin, & Konold, 1998)

The SIPA was developed as an upward extension of the PSI-4 that takes into account central issues faced by parents in dealing with adolescents (ages 11–19 years). It can be completed in about 20 minutes. The SIPA yields scores in three domains: (1) the Adolescent domain, with four subscales (Moodiness/Emotional Lability, Social Isolation/Withdrawal, Delinquency/Antisocial, and Failure to Achieve/Persevere); (2) the Parent domain, with four subscales (Life Restrictions, Relationship with Spouse/Partner, Social Alienation, and Incompetence/Guilt); and (3) the Adolescent–Parent Relationship domain, which measures the perceived quality of the relationship the parent has with the adolescent, such as the degree of communication and affection between them. There is also a Life Stressors scale, which indicates the number of stressors the parent has experienced in the past year. A Total Parenting Stress Index score is a composite of all items across the domains. The SIPA is available from Psychological Assessment Resources, Inc., 16204 North Florida Avenue, Lutz, FL 33549; 800-727-9329; *www.parinc.com.*

TEACHER RATING SCALES

Behavior Assessment System for Children, Second Edition— Teacher Rating Scale (BASC-3-TRS; Reynolds & Kamphaus, 2015)

The BASC-3-TRS is similar to the BASC-PRS (Parent Rating Scale) covering a broad range of problem and adaptive behaviors seen in the school setting. It also screens for learning problems that can accompany emotional and behavioral problems in children. The BASC-3-TRS has three forms composed of similar items and scales for preschoolers (ages 2–5 years), children (ages 6–11 years), and adolescents (ages 12–21 years). It takes about 20 minutes to complete. It has the same four composite scores as the BASC-PRS but also includes a School Problems factor. The BASC-3-TRS is available from Pearson, Inc., P.O. Box 599700, San Antonio, TX 78259; 800-627-7271; *www.pearsonclinical.com.*

Child Behavior Checklist—Teacher's Report Form (CBCL-TRF; Achenbach, 2013; Achenbach & Rescorla, 2001a, 2001b)

The CBCL-TRF is a broad-based, norm-reference rating scale to assess a range of adaptive and problem behaviors in the school setting, for ages 5–18 years and takes about 10 minutes to complete. Similar to the CBCL, it has three global scales: Externalizing, Internalizing and Total Scores, along with syndrome and DSM-oriented scales. The CBCL-TRF can be obtained from the Achenbach System of Empirically Based Assessment, 1 South Prospect Street, St. Joseph's Wing (3rd Floor, Room 3207), Burlington, VT 05401; 802-656-5130; *www.aseba.org.*

Child and Adolescent Symptom Inventory–5 (CASI-5; Gadow & Sprafkin, 2013)

The CASI-5 is a behavior rating scale that is modeled on DSM-5 symptom items for children ages 5–18 years, and can be completed by teachers in 10–15 minutes. There are Symptom Count, Impairment, and Clinical Cutoff scores, as well as Symptom Severity and Impairment questions to assist in identifying problem symptoms on the school setting. The CASI-5 can be obtained from Checkmate Plus, P.O. Box 696, Stony Brook, NY 11790-0696; 800-779-4292; *www.checkmateplu.com.*

Sutter–Eyberg Student Behavior Inventory—Revised (SESBI-R; Eyberg & Pincus, 1999)

The teacher version of the SESBI-R is similar to the parent form. It consists of 38 behaviors that are problematic for teachers of children ages 2–16 years. Teachers rate each behavior on a 7-point Intensity scale (how often it occurs) and also indicate whether the behavior is a problem for them. The SESBI-R can be completed in 5–10 minutes and, in general, an Intensity score of 153 or above and a Problem score of 19 or above are considered clinically significant. The SESBI-R has been used to screen for disruptive behavior problems and evaluate the effects of treatment. The SESBI is available from Psychological Assessment Resources, Inc., 16130 North Florida Avenue, Lutz, FL, 33549; 800-727-9329; *www.parinc.com.*

Social Skills Improvement System Rating Scales (SSIS; Gresham & Elliott, 2008)

The SSIS is a comprehensive measure of social skills, problem behaviors, and academic competence for children from preschool through high school (ages 3–18 years) with ratings from parents, teachers, and children (ages 8-18 years). The frequency of behavior is rated, as well as the importance of the behavior to help clinicians prioritize behaviors for intervention, and the forms take 15–20 minutes to complete. Areas that are assessed include Social Skills (Communication, Cooperation, Assertion, Responsibility, Empathy, Engagement, Self-Control), Competing Problem Behaviors (Externalizing, Bullying, Hyperactivity/Inattention, Internalizing, Autism Spectrum) and Academic Competence (Reading Achievement, Math Achievement, Motivation to Learn). The scored tests give standard scores, percentile ranks, and behavioral levels to assist in treatment recommendations. The SSIS is available from Pearson, Inc., P.O. Box 599700, San Antonio, TX, 78259; 800-627-7271; *www.pearsonclinical.com.*

CHILD SELF-REPORT MEASURES

Behavior Assessment System for Children, Third Edition— Self-Report of Personality (BASC-3-SRP; Reynolds & Kamphaus, 2015)

The BASC-3-SRP assesses a child's or adolescent's perceptions about school, parents, peers, and behavior problems. It takes about 20–30 minutes to complete. There are two forms, one for children, ages 8–11 years and the other for adolescent to adult, ages 12–21 years. There are five main factors (School Problems, Internalizing Problems, Inattention/Hyperactivity, Personal Adjustment, and Emotional Symptoms Index) and validity scales to judge the quality of the ratings. The BASC-3-SRP is available from Pearson, Inc., P.O. Box 599700, San Antonio, TX 78259; 800-627-7271; *www.pearsonclinical.com.*

Child Behavior Checklist—Youth Self Report (CBCL-YSR; Achenbach & Rescorla, 2001a, 2001b)

The CBCL-YSR is designed to enable youth ages 11–18 years to report on their competencies and problems, and it takes about 15 minutes to complete. Its content and format are similar to those of the parent and teacher forms. Results are for Externalizing and Internalizing scores and a Total Score, as well as the syndrome and DSM-oriented scales. The CBCL-YSR can be obtained from the Achenbach System of Empirically Based Assessment, 1 South Prospect Street, St. Joseph's Wing (3rd Floor, Room 3207), Burlington, VT 05401; 802-656-5130; *www.aseba.org.*

Roberts–2 (Roberts & Gruber, 2005)

The Roberts–2 is a projective technique that involves having a child tell a story about a moderately ambiguous picture. It is unique among projective tests in its use of an explicit and standardized scoring system. The Roberts–2 is designed for use with children ages 6–18 years with stimulus cards depicting Common Situations, Conflicts, and Stresses in children's lives. Children are instructed to tell a story about each picture; then each story is scored across categories to help determine consistent themes across stories. The Roberts–2 is used to get clinical impressions of children's relationships and views of others, and it can be helpful if children are uncomfortable with interviewing or questionnaires. The Roberts–2 is available from Western Psychological Services, 625 Alaska Avenue, Torrance, CA 90503-5124; 800-648-8857; *www.wpspublish.com.*

PARENT CHARACTERISTICS MEASURES

Dyadic Adjustment Scale (DAS; Busby, Christensen, Crane, & Larson, 1995; Spanier, 1976)

The DAS consists of 32-items that assess the quality of a marriage (there is also a shorter, 14-item version). It takes 5–10 minutes to complete and has four subscales (Dyadic Consensus, Dyadic Satisfaction, Affectional Expression, and Dyadic Cohesion) and a Total Score. Means and standard deviations on the factors and Total Score are provided for divorced and married couples. The DAS is available from Multi-Health Systems (MHS), P.O. Box 950, North Tonawanda, NY 14120-0950; 800-456-3003; *www.mhs.com.* The Revised Dyadic Adjustment Scale (Busby, Christensen, Crane, & Larson, 1995) has also been used for research purposes, and permission can be requested from MHS for use.

Beck Depression Inventory–II (BDI-II; Beck, Steer, & Brown, 1996)

The BDI-II is a 21-item measurement of depression in adults. For each item, the person chooses one of four statements that are arranged according to increasing levels of depression. The BDI-II takes approximately 10 minutes to complete, and the Total Score can help assess clinical levels of depression. The BDI-II is available from Pearson, Inc., P.O. Box 599700, San Antonio, TX 78259; 800-627-7271; *www.pearsonclinical.com.*

Parenting Alliance Measure (PAM; Abidin & Brunner, 1995; Abidin & Konold, 1999)

The PAM is a 20-item, self-report measure that assesses the degree to which parents of children ages 1–19 years believe they have a cooperative working relationship in meeting their children's needs. The PAM can be completed in less than 10 minutes, and gives a Total Score. The PAM discriminates among married, separated, and divorced couples, and focuses on issues of parenting separate from the marital relationship. The PAM is available from Psychological Assessment Resources, Inc., 16130 North Florida Avenue, Lutz, FL 33549; 800-727-9329; *www.parinc.com.*

BEHAVIORAL OBSERVATION SYSTEMS

Behavior Assessment System for Children, Third Edition— Student Observation System (BASC-3-SOS; Reynolds & Kamphaus, 2015)

The BASC-3-SOS, a 15-minute school observation procedure, is divided into 30-second intervals; at the end of each interval, the child's behavior across a wide range of possible adaptive and maladaptive behaviors is observed for 3 seconds. At the end of the observation period, the observer makes a narrative recording of the teacher and child interactions. The BASC-SOS is available from Pearson, Inc., P.O. Box 599700, San Antonio, TX 78259; 800-627-7271; *www.pearsonclinical.com.*

Child Behavior Checklist—Direct Observation Form (CBCL-DOF; Achenbach, 2013)

The CBCL-DOF, direct observational procedure for children ages 6–11 years, involves observing a child for 10 minutes on three to six separate occasions across several possible settings (classroom, recess, group setting). The observer performs three tasks during the 10-minute observation period: (1) A narrative description is written throughout the 10 minutes, noting the occurrence, duration, and intensity of specific problems; (2) at the end of every minute, the child's behavior is coded as being on or off task for 5 seconds; and (3) at the end of the 10-minute period, the observer rates the child on 96 behaviors that may have been observed. The CBCL-DOF can be obtained from the Achenbach System of Empirically Based Assessment, 1 South Prospect Street, St. Joseph's Wing (3rd Floor, Room 3207), Burlington, VT 05401; 802-656-5130; *www.aseba.org.*

Dyadic Parent–Child Interaction Coding System, Fourth Edition (DPICS-4; Eyberg, Nelson, Ginn, Bhuiyan, & Boggs, 2013)

The DPICS-4 is an observation system for coding parent–child interactions in the clinic during three 10-minute periods (Child-Directed Interaction, Parent-Directed Interaction and Cleanup), with the last 5 minutes of each 10-minute period used for recording observations. It provides an assessment of the current level of parenting skills, the child's responsiveness to the parent, and qualitative aspects of their interaction. In addition to behaviors during the time period, sequences of behavior are also coded: parental responses (e.g., ignores or responds) to the child's defiant behavior, and child responses (e.g., complies, noncomplies, or no opportunity) to parental commands. The coding system is a continuous frequency count of all behaviors observed during the 5-minute interaction periods. The DPICS-4 manual is available from PCIT International, 6814 NW 81 Boulevard, Gainesville, FL 32635; *www.pcit.org.*

MEASURES PARTICULAR TO BEHAVIORS

Attention-Deficit/Hyperactivity Disorder and Disruptive Behavior Measures

ADHD Rating Scale–5 for Children and Adolescents (DuPaul, Power, Anastopoulos, & Reid, 2016)

The ADHD Rating Scale–5, an 18-item screen for ADHD symptoms and impairment in children (ages 5–10 years) and adolescents (ages 11–17 years), has parent and teacher report forms, and can be completed in 5 minutes. It is helpful in assessing baseline symptoms and may also be used to assess treatment changes in symptoms. The ADHD Rating Scale–5 is available from The Guilford Press, 370 Seventh Avenue, Suite 1200, New York, NY 10001-1020; 800-365-7006; *www.guilford.com.*

Conners 3rd Edition (Conners 3; Conners, 2008)

The Conners 3, a normed measure to assess ADHD and other comorbid conditions, includes self-report (for ages 8–18 years), parent, and teacher report forms (for youth ages 6–18 years) and can be completed in 10 minutes (short form) or 20 minutes (long form). The measure obtains detailed information on externalizing behaviors (e.g., Defiance/Aggression, Oppositional Defiant Disorder, Conduct Disorder) and also includes a Global Index of general psychopathology and an ADHD Index that screens to determine whether further assessment of ADHD is necessary. The Conners Global Index is available from Multi-Health Systems, P.O. Box 950, North Tonawanda, NY 14120-0950; 800-456-3003; *www.mhs.com.*

Inventory of Callous–Unemotional Traits (ICU; Frick, 2004)

The ICU, a 24-item measure to help distinguish a particular subgroup of children who exhibit conduct symptoms and "limited prosocial emotions," includes a youth self-report, and parent and teacher report forms, and can be completed in about 10 minutes. The measure has three subscales, including Callousness, Uncaring, and Unemotional, with resources that can assist with interpretations (Kimonis, Fanti, & Singh, 2014; Kimonis et al., 2015). The ICU is available from Dr. Paul Frick at *http://sites01.lsu.edu/faculty/pfricklab.*

Anxiety Measures

Fear Survey Schedule for Children—Revised (FSSC-R; Muris, Ollendick, Roelofs, & Austin, 2014; Ollendick, 1983)

The FSSC-R, a self-report measure that can be completed in about 10 minutes, is for children ages 7–16 years (there is also a short form). It provides information on the number, severity, and types of fears that a child experiences, and gives a rating of the child's fears in relation to other children the same age. There are five fear factors: (1) Failure and Criticism; (2) The Unknown (e.g., dark places); (3) Minor Injury and Small Animals; (4) Danger and Death; and (5) Medical Fears, and a Total Score. The FSSC-R is available from *www.therapyadvisor.com/localcontent/child/fssc-r.pdf* or from Dr. Thomas H. Ollendick, Child Study Center, Department of Psychology, Virginia Polytechnic Institute and State University, Blacksburg, VA 24061; *tho@vt.edu.*

Multidimensional Anxiety Scale for Children, Second Edition (MASC-2; March, 2013)

The MASC-2 is a 50-item self-report measure that assesses the major dimensions of anxiety in children and adolescents ages 8–19 years. Items are read to younger children. The MASC-2 takes about 15 minutes to complete (fourth-grade reading level). There are seven scales: (1) Separation Anxiety/Phobias; (2) GAD Index; (3) Social Anxiety; (4) Obsessions and Compulsions; (5) Physical Symptoms; (6) Harm Avoidance; and (7) Inconsistency Index to check response style. There is also a parent version, and concordance between reporters is greatest for easily observable symptom clusters. The MASC-2 has been shown to discriminate children with and without anxiety disorders (and, to a lesser degree, children with depression). The MASC-2 is available from Multi-Health Systems, P.O. Box 950, North Tonawanda, NY 14120-0950; 800-456-3003; *www.mhs.com.*

Revised Children's Manifest Anxiety Scale—Second Edition (RCMAS-2; Reynolds & Richmond, 2008)

The RCMAS-2, also called "What I Think and Feel," is a 49-item self-report that measures a range of symptoms related to anxiety for children and adolescents ages 6–19 years; it can be completed in 10–15 minutes. Reading is at the third-grade level, and directions are read aloud to younger children. The subscales include Physiological Anxiety, Worry, Social Anxiety, Defensiveness, an Inconsistent Responding Index, and a Total Score. The RCMAS-2 was not designed to discriminate between children with anxiety disorders, but it is good measure of the variety of anxiety symptoms that children can experience. The RCMAS-2 is available from Western Psychological Services, 12031 Wilshire Boulevard, Los Angeles, CA 90025; 800-222-2670; *www.wps.publish.com.*

School Refusal Assessment Scale—Revised (SRAS-R; Kearney & Albano, 2007)

The SRAS-R, an assessment instrument based on a functional classification system of school refusal in K–12 children, takes about 10 minutes for parents or children to complete. The items measure four motivating conditions for school refusal: (1) avoidance of negative-affect-provoking objects or situations related to school settings (e.g., fire alarm, bus, tests); (2) escape from aversive social or evaluative situations (e.g., those leading to unsatisfying peer relationships or severe social anxiety); (3) attention getting (e.g., having tantrums in order to stay home); and (4) positive tangible reinforcement (e.g., pursuit of more rewarding experiences outside of school, such as watching television or visiting friends). The assessment including the SRAS-R scales and treatment of school refusal using this approach is published in *When Children Refuse School: A Cognitive-Behavioral Therapy Approach* (2nd ed.; Kearney & Albano, 2007), which includes both a parent workbook and a therapist guide. These are available from Oxford University Press, 198 Madison Avenue, New York, NY 10016; 800-4445-9714; *www.global.oup.com.*

Screen for Child Anxiety-Related Emotional Disorders (SCARED; Birmaher et al., 1997, 1999)

The SCARED, a 41-item self-report or parent-report measure, can be completed in about 10 minutes by children ages 8–18 years (there is also a parent rating form). There are five factors: (1) Panic/Somatic; (2) Generalized Anxiety; (3) Separation Anxiety; (4) Social Phobia; and (5) School Phobia. The SCARED has been shown to discriminate between anxiety disorders. The SCARED is available from *www.performwell.org* or *www.pediatricbipolar.pitt.edu.*

Depression Measures

Children's Depression Inventory, Second Edition (CDI-2; Kovacs, 2011)

The CDI-2, a self-report measure, assesses the cognitive, affective, and behavioral signs of depression in children ages 7–17 years. It has two forms: a 27-item long form that takes about 15 minutes to complete, and a 10-item short form that takes 5–10 minutes to complete (there are also parent and teacher forms). For each item, children select one of three alternatives that best describes them in the past 2 weeks. There are two main scales, Emotional Problems and Functional Problems, and four subscales: (1) Negative Mood; (2) Negative Self-Esteem; (3) Ineffectiveness; and (4) Interpersonal Problems. The CDI-2 is available from Multi-Health Systems, P.O. Box 950, North Tonawanda, NY 14120-0950; 800-456-3003; *www.mhs.com.*

Center for Epidemiologic Studies Depression Scale for Children (CES-DC; Weissman, Orvaschel, & Padian, 1980)

The CES-DC is a 20 item self-report that measures depressive symptoms in children ages 6–17 years. It takes about 5 minutes to complete. A higher total score indicates higher levels of depression, with scores over 15 suggesting significant symptoms and a need for further evaluation. The CES-DC is available for clinical use from *www.brightfutures.org* or *www.outcometracker.org.*

Hopelessness Scale for Children (HSC; Kazdin, Rodgers, & Colbus, 1986)

The HSC is a 17-item self-report measure of a children's expectations of their future. The reading level is first to second grade, and is for children ages 7–17 years. There is a Total Score, with higher scores indicating a higher degree of hopelessness. Hopelessness is related to depression and suicidality. The HSC is available from Dr. Alan E. Kazdin, Department of Psychology, Yale University, P.O. Box 208205, New Haven, CT 06520-8205; 203-432-9993; *alan.kazdin@yale.edu.*

Suicide Probability Scale (SPS; Cull & Gill, 1988)

The SPS, is a 36-item self-report screening measure of suicide risk for children over age 13 years, takes about 5–10 minutes to complete. The SPS has three summary scores including a Total Score, a *T*-Score, and a Suicide Probability Score. It also has four subscales: (1) Hopelessness; (2) Suicide Ideation; (3) Negative Self-Evaluation; and (4) Hostility. The SPS has been useful in predicting a range of suicidality and is available from Western

Psychological Services, 625 Alaska Avenue, Torrance, CA 90503-5124; 800-648-8857; *www.wpspublish. com.*

Young Mania Rating Scale (YMRS; Young, Biggs, Ziegler, & Meyers, 1978)

The YMRS, an 11-item clinician-rated scale of possible symptoms of mania, was originally for adults but it has also been used for children ages 4–17 to discriminate between children with bipolar disorder and other disorders (Yee et al., 2015). The child (parents may also be interviewed) is asked to describe level of behaviors in different areas over the past 48 hours and up to the past 2 weeks (Yee et al., 2015). The clinician rates areas based on an interview and behavior observations, and it takes about 15–30 minutes to complete. Severity ratings are given for the items for scoring. The YMRS can be accessed at *www.outcometracker.org.*

Developmental Disabilities Measures

Aberrant Behavior Checklist (ABC; Aman, Singh, Stewart, & Field, 1985)

The ABC is a symptom checklist that assesses problem behaviors of children and adults with intellectual disabilities. The 58-item checklist can be completed by someone with knowledge of the person assessed, including parents, teachers, and caregivers. Answers to the items then gives results in five subscales: (1) Irritability/Agitation; (2) Lethargy/Social Withdrawal; (3) Stereotypic Behavior; (4) Hyperactivity/Noncompliance, and (5) Inappropriate Speech. The ABC is available from Slosson Educational Publications, Inc., 538 Buffalo Road, East Aurora, New York, NY 14052; 800-655-3840; *www.slosson.com.*

Autism Diagnostic Interview, Revised (ADI-R; Rutter, Le Couteur, & Lord, 2003)

The ADI-R, a comprehensive, standardized interview for diagnosing autism and planning treatment areas for intervention, is for children and adults with a mental age above age 2 years. The interview can take 90–150 minutes to complete, including scoring. Answers to the items then provide results in three domains: Language/Communication, Reciprocal Social Interactions, and Repetitive Behaviors/Interests. The ADI-R has become the “gold standard” in the field for assessing autism spectrum disorders. The ADI-R requires specialty training for its use. It is available from Western Psychological Services, 12031 Wilshire Boulevard, Los Angeles, CA 90025; 800-222-2670; *www.wps.publish.com.*

Autism Diagnostic Observation Schedule, Second Edition (ADOS-2; Lord, Rutter, DiLavore, Risi, Gotham, & Bishop, 2012)

The ADOS-2, a comprehensive, standardized observation to assist in assessing and diagnosing autism spectrum disorders (ASD) across a range of developmental levels, including individuals age 12 months through adulthood. For children, the observation includes standard activities in a play setting to observe behaviors identified for a diagnosis of ASD. The observation can take 40–60 minutes to complete. The ADOS-2 has become the “gold standard” in the field for assessing ASD. The ADOS-2 requires specialty training for its use. It is available from Western Psychological Services, 12031 Wilshire Boulevard, Los Angeles, CA 90025; 800-222-2670; *www.wps.publish.com.*

Baby and Infant Screen for Children with Autism Traits—Parts 1, 2, 3 (BISCUIT; Matson & Tureck, 2012)

The BISCUIT is a parent-report measure that assesses for ASD in children ages 17–37 months. It has three parts: Part 1 assesses core symptoms of autism; Part 2 assesses comorbid disorders (e.g., attention-deficit/hyperactivity disorder, conduct disorder, specific phobia); and Part 3 includes specific questions about aggressive/disruptive, self-injurious, and stereotypic behaviors. There are 175 items total across all sections, so the measure may take 20–30 minutes to complete. The BISCUIT is available from Disability Consultants, LLC, 17211 North Lakeway Avenue, Baton Rouge, LA 70810; *www.disabilityconsultants.org.*

Childhood Autism Rating Scale, Second Edition (CARS-2; Schopler & Van Bourgondien, 2010)

The CARS-2, an observation and rating scale, screens for symptoms of autism for age 2 years and up. There is a 15-item rating scale completed by the clinician based on observations and an unscored Parent/Caregiver Questionnaire to aid in making ratings. The CARS-2 takes about 5–10 minutes to complete after information has been collected. It is available from Western Psychological Services, 12031 Wilshire Boulevard, Los Angeles, CA 90025; 800-222-2670; *www.wps.publish.com.*

Behavior Problems Inventory (BPI-01; Rojahn, Matson, Lott, Esbensen, & Smalls, 2001)

The BPI-01 is a 49-item questionnaire completed by parents to assess behavior problems in young children with developmental disabilities. It includes questions from areas including self-injurious behavior, stereotypic behavior, aggressive/destructive behavior, and a total score. Each of the items are rated on a frequency scale and severity scale. The BPI-01 is available from Rojahn et al. (2001) or Rojahn et al. (2012) for a 30-item, short form version.

Parental Concerns Questionnaire (PCQ; Schroeder et al., 2013)

The PCQ is a screening instrument for infants and toddlers at-risk for developmental concerns that may also have severe behavior problems. The parent interview includes 15 items that cover three main areas: Developmental/Social, Biomedical, and Behavior Problems. If parents respond yes to one of the items, more information is gathered about the nature and severity of the behaviors. The PCQ is available from Schroeder et al. (2013).

Social Communication Questionnaire (SCQ; Rutter, Bailey, & Lord, 2003)

The SCQ screens for ASD, which parents complete for children over age 4 (with mental age over age 2 years) to adults, can be completed in less than 10 minutes. It has 40 items for parents to complete (Current and Lifetime forms) which then yield a Total Score and cutoff points for the possibility of autism. The SCQ is highly correlated with the ADI-R (Ozonoff, Goodlin-Jones, & Solomon, 2005), which is the standard in the field for autism assessment, but the SCQ is a quicker screen. The SCQ is available from Western Psychological Services, 12031 Wilshire Boulevard, Los Angeles, CA 90025; 800-222-2670; *www.wps.publish.com.*

Vineland Adaptive Behavior Scales, Third Edition (Vineland-3; Sparrow, Cicchetti, & Saulnier, 2016)

The Vineland-3 measures the social and adaptive behavior of children, adolescents, and adults from birth to age 90 years and is commonly used to assess development disabilities. There are three versions: Interview Form, Parent/Giver Form, and Teacher Form. The Interview takes 25–60 minutes, and the forms take 10–20 minutes to complete; brief forms are also available. The open-ended interview technique is unique and requires organizing the interview topically, yet items are placed on the response form by difficulty level. The forms cover the domains of Communication, Daily Living Skills, Socialization, and Motor Skills (Motor Domain is optional). There is also a Maladaptive domain that assesses for severe behavior problems. The Vineland-3 is available from Pearson, Inc., P.O. Box 599700, San Antonio, TX 78259; 800-627-7271; *www.pearsonclinical.com.*

Divorce Measure

Child Risk Index for Divorced or Separated Families (CRI-DS; Tein, Sandler, Braver, & Wolchik, 2013)

The CRI-DS is a brief, 15-item, parent report to assess problems children may experience after parental divorce. The scale has a mix of child behaviors and risk factors for difficult reactions. The items are summed for a Total Score, and a score of 6 or greater predicts more problematic behavior problems. The CRI-DS is available from Tein et al. (2013).

Eating Measure

Children's Eating Behavior Inventory (CEBI; Archer, Rosenbaum, & Streiner, 1991)

The CEBI is a 40-item, parent report of eating behavior in children ages 2–12 years. It takes approximately 15 minutes to complete and covers items focusing on the child (i.e., food preferences, motor skills, and behavioral compliance) and on the parent and family system (i.e., parental child behavior controls, cognitions and feelings about feeding the child, and interactions between family members). The items are summed for a Total Score, with a higher score reflecting more difficulties. The CEBI is available from Archer et al. (1991).

Habits, Obsessive–Compulsive Disorder, and Tics Measures

Children's Yale–Brown Obsessive–Compulsive Scale (CY-BOCS; Goodman et al., 1989)

The CY-BOCS is a clinician-administered scale that measures the severity of obsessive–compulsive symptoms in children. It includes sections on Contamination, Hoarding, Symmetry, Counting, Religion, and Aggression. It can be completed by the child/adolescent and parent separately or together. The CY-BOCS is available from Goodman et al. (1989).

Hopkins Motor and Vocal Tic Scale (Hopkins Scale; Walkup, Rosenberg, Brown, & Singer,

1992)

The Hopkins Scale is a way for clinicians and parents to record simple or complex tic symptoms, taking into account frequency, intensity, interference, and impairment. Parents rate symptoms over the past week, and clinician rates tics seen in a clinical interview. Each type of tic (e.g., motor, vocal) is listed and the severity is rated. Three final subjective scores, the overall rating by parents, the clinician, and a combination of the two, can be obtained, with higher scores reflecting more severe tics. The Hopkins Scale can be obtained from Walkup et al. (1992).

Massachusetts General Hospital Hair Pulling Scale (MGH-HPS; Keuthen et al., 1995)

The MGH-HPS is a 7-item self-report measure of hair pulling over the past week. It asks about urges to pull, actual hair pulling, and consequences of hair pulling. A Total Score is the sum of each item, with higher scores suggesting more severe symptoms. The MGH-HPS can be obtained for clinical use from *www.outcometracker.org.*

Nailbiting Severity Scale (Leonard, Lenane, Swedo, Rettew, & Rapoport, 1991)

The Nailbiting Severity Scale assesses the extent of severe nailbiting behaviors and was adapted from measures used to assess Tourette's disorder. It consists of five items: the amount of time spent each day biting nails, intensity of the urge to bite nails, resistance exerted against nailbiting, amount of distress caused by nailbiting, and the extent to which nailbiting interferes with the child's functioning. The scale can be obtained from Leonard et al. (1991).

Psychiatric Institute Trichotillomania Scale (PITS; Winchel et al., 1992)

The PITS, a clinician-rated measure used in a semistructured interview, addresses the history and current status of hair-pulling behaviors (sites, severity, duration, resistance, interference, and distress). It can also be used to monitor the progress of treatment. The PITS is available from Winchel et al. (1992).

Yale Global Tic Severity Scale (YGTSS; Leckman et al., 1989; Woods et al., 2008)

The YGTSS, a semistructured interview, allows for multiple informants about current tics. A checklist format is used, in which the child and the parent record whether a particular motor or vocal tic has ever occurred or is currently occurring; the age of onset; the number, frequency and intensity; the level of interference with daily functioning; and impairment. There is also a column in which the clinician records tics that he or she observed during the interview. The YGTSS is available from Leckman et al. (1989).

Toileting Measure

Parental Opinions of Pediatric Constipation Questionnaire (POOPC; Silverman et al., 2015)

The POOPC is a 24-item parent-report measure of how the parents felt in the previous week regarding their child's constipation. It takes about 10 minutes to complete and consists of a Total Score and four subscales: (1) Burden/Worry; (2) Family (e.g., causing difficulties in family relationship); (3) Treatment (e.g., relationship with treatment team); and (4) Social (e.g., difficulties in social relationships due to constipation). The POOPC, which includes supplemental online files with scoring, is available from Silverman et al. (2015).

Sleep Measures

Brief Infant Sleep Questionnaire (BISQ; Sadeh, 2004)

The BISQ, a 13 item parent-rated scale of sleep for infants/toddlers ages 0–29 months, asks about sleep over the previous week (there is also an extended Web-based questionnaire for infants/toddlers from birth to age 36 months). There are three main categories: Nocturnal Sleep Duration, Night Wakings, and Method of Falling Asleep. The BISQ can be accessed by contacting the developer, Dr. Avi Sadeh, Director of the Sleep Laboratory, Department of Psychology, Tel Aviv University, Ramat Aviv, Israel 69978; *sadeh@post.tau.ac.il.*

Children's Sleep Habits Questionnaire (CSHQ; Owens, Spirto, & McGuinn, 2000)

The CSHQ, a 35-item parent-rated scale of sleep problems for children ages 4–10 years, asks about sleep over the previous week. There are eight main categories: (1) Bedtime Resistance, (2) Sleep Onset Delay, (3) Sleep Duration, (4) Sleep Anxiety, (5) Night Wakings, (6) Parasomnias, (7) Sleep Disordered Breathing, and (8) Daytime Sleepiness. The CSHQ can be accessed by contacting the developer, Dr. Judith A. Owens, Department of Pediatric Ambulatory Medicine, Rhode Island Hospital, 593 Eddy Street, Potter Building, Suite 200, Providence, RI 02903; 401-444-8280; *jowens@lifespan.org.*

Pediatric Sleep Questionnaire (PSQ; Chervin, Hedger, Dillon, & Pituch, 2000)

The PSQ is a 22-item parent-rated scale of sleep problems for children ages 2–18 years. It has three subscales: Sleepiness Scale, Snoring Scale, and Attention/Hyperactivity Scale. The PSQ can be accessed by contacting the developer, Dr. Ronald D. Chervin, Department of Neurology, University of Michigan, Ann Arbor, MI 48109; *chervin@med.umich.edu* through license *http://inventions.umich.edu/technologies/3766_pediatric-sleep-questionnaire-designed-as-research-screen-for-symptoms-of-obstructive-sleep-apnea-and-other-sleep-disorders-in-children.*

Trauma Measures

Child PTSD Symptom Scale (CPSS; Foa, Johnson, Feeny, & Treadwell, 2001)

The CPSS is a self-report measure that assesses the severity of trauma symptoms in children and adolescents ages 8–18 years. There are 24 items and two parts: The first part measures the type and frequency of PTSD symptoms, and the second measures functional impairment from these symptoms. It takes about 10 minutes for a child to complete, and if used as an interview by the clinician, then it takes about 20 minutes. The CPSS is available from *www.performwell.org* or from Dr. Edna Foa, Department of Psychiatry, University of Pennsylvania, 3535 Market Street, 6th Floor, Philadelphia, PA 19104; 215-746-3327; *foa@mail.med.upenn.edu.*

Child Sexual Behavior Inventory (CSBI; Friedrich, 1997; Friedrich et al., 2001)

The CSBI is a parent report measure of sexual behavior in children ages 2–12 years. It is designed for use with children who have been or who may have been sexually abused; however, it is not a test of sexual abuse. The CBSI does provide valuable information on a child's sexual behavior and identifies children who should be evaluated further. The CSBI takes 10–13 minutes to administer and score, and requires a fifth-grade reading level. A wide range of sexual behaviors are covered in nine major content domains: Boundary Issues, Exhibitionism, Gender Role Behavior, Self-Stimulation, Sexual Anxiety, Sexual Interest, Sexual Intrusiveness, Sexual Knowledge, and Voyeuristic Behavior. The CSBI has three clinical scales: (1) the CSBI-R Total Scale (overall level of sexual behavior exhibited); (2) the Developmentally Related Sexual Behavior Scale (sexual behaviors considered normative for the child's age and gender); and (3) the Sexual Abuse Specific Items scale (sexual behaviors that are atypical for the child's age and gender). The CSBI is available from Psychological Assessment Resources, Inc., 16204 North Florida Avenue, Lutz, FL 33549; 800-331-8378; *www4.parinc.com.*

Screen for Child Anxiety-Related Emotional Disorders (SCARED; Birmaher et al., 1999)

The SCARED is a child and parent report to screen for child anxiety disorders, and also has a scale to assess trauma symptoms (Muris et al., 2000a). It has 41 items, is for children and adolescents ages 8–18 years, and takes about 10 minutes to complete. The SCARED is available from *www.pediatricbipolar.pitt.edu* or from the developer, Dr. Boris Birmaher at 412-246-5235; *birmaherb@upmc.edu.*

Pediatric Emotional Distress Scale (PEDS; Saylor, Swenson, Reynolds, & Taylor, 1999; Spilsbury et al., 2005)

The PEDS detects symptoms after a traumatic event for children as young as age 2 years and as old as age 10 years, as reported by parents; it can be completed in 7 minutes. It has 21 items for general behavior that load into scales for Anxious/Withdrawn, Fearful, and Acting Out, and four trauma-specific items. The PEDS is available from the author at *conway.saylor@citadel.edu*; *www.nctsnet.org.*

UCLA PTSD Reaction Index (Pynoos, Rodriguez, Steinberg, Stuber, & Frederick, 1998)

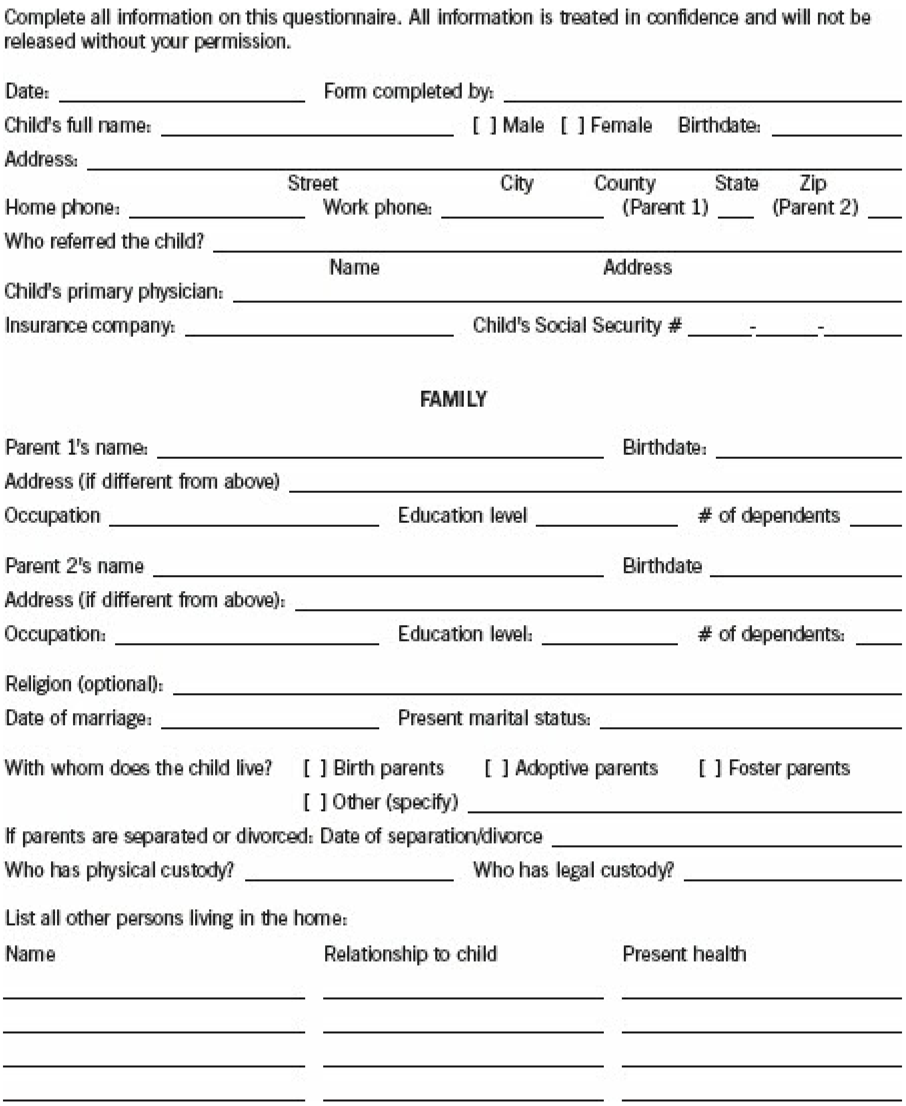
The UCLA PTSD Reaction Index, updated for DSM-5, is a semistructured interview that assesses history and diagnostic criteria for school-age children and adolescents. The Regents of the University of California requires a licensing agreement for use of the UCLA PTSD Reaction Index; go to *http://oip.ucla.edu/marketplace*, or contact Preston Finely at *hfinley@mednet.ucla.edu.*

APPENDIX B

Assessment Instruments

APPENDIX B.1

General Parent Questionnaire



Complete all information on this questionnaire. All information is treated in confidence and will not be released without your permission.

Date: ____________________ Form completed by: ______________________________

Child's full name: ________________________ [ ] Male [ ] Female Birthdate: __________

Address: ____

Street City County State Zip

Home phone: ______________ Work phone: _____________ (Parent 1) ___ (Parent 2) ___

Who referred the child? ____

Name Address

Child's primary physician: ____

Insurance company: ______________________ Child's Social Security # _____-_____-______

FAMILY

Parent 1's name: ____________________________________ Birthdate: ______________

Address (if different from above) ____

Occupation ______________________ Education level ___________ # of dependents ____

Parent 2's name ____________________________________ Birthdate ______________

Address (if different from above): ____

Occupation: _____________________ Education level: ___________ # of dependents: ____

Religion (optional): ____

Date of marriage: __________________ Present marital status: ____________________

With whom does the child live? [ ] Birth parents [ ] Adoptive parents [ ] Foster parents

[ ] Other (specify) ___________________________________

If parents are separated or divorced: Date of separation/divorce ____________________

Who has physical custody? ________________ Who has legal custody? ________________

List all other persons living in the home:

Name	Relationship to child	Present health
________________________	______________________	______________________
________________________	______________________	______________________
________________________	______________________	______________________
________________________	______________________	______________________

List any other people who care for the child a significant amount of time:

Name	Relationship to child (grandmother, neighbor, etc.)
____________________	____________________
____________________	____________________
____________________	____________________

CHILD

Pregnancy and birth: Any complications? [ ] Yes [ ] No; if yes, briefly explain: ____________________

____

____

____

Developmental milestones: (Ages) Sitting: ___ Walking: ___ Talking: ___ Toilet-trained: ________

Medical problems: [ ] Yes [ ] No; if yes, briefly explain: ____________________

____

Child's last physical exam (date): ____________________ Any concerns? [ ] Yes [ ] No; if yes, briefly explain: ____________________

List all prescribed and over-the-counter medications: ____________________

____

Sleep problems? [ ] Yes [ ] No; if yes, briefly explain: ____________________

____

Please list any jobs or chores your child has at home or at school—for example, feeding the dog, making the bed, safety patrol. [ ] None	How well does your child do these jobs/chores? Poorly		Average		Great
____________________	1	2	3	4	5
____________________	1	2	3	4	5
____________________	1	2	3	4	5

What are your child's strengths? ____________________

____

____

How many close friends does your child have?	[ ] None	[ ] 1	[ ] 2 or 3	[ ] 4 or more
How many close friends in the neighborhood does your child have?	[ ] None	[ ] 1	[ ] 2 or 3	[ ] 4 or more
How many times a week does your child do things with them?	[ ] None	[ ] 1	[ ] 2 or 3	[ ] 4 or more

	Poorly		Average		Great
Compared to other children his/her age, how does your child get along with other children?	1	2	3	4	5

What are your child's favorite recreational or extracurricular activities? ______________________________

____

____

Comments: ____

____

____

Who generally disciplines the child? ___________________________________

What methods are used? ____

____

Do parents agree on methods of discipline? [ ] Yes [ ] No; if no, please elaborate: ______________

____

____

FAMILY RECORD

Check condition and relationship of any blood relative who has or has had any of the conditions listed below:	Yes	No	Being treated	Father	Mother	Grandfather	Grandmother	Brother	Sister	Son	Daughter	Other	Indicate other relative
Alcoholism/substance abuse													
Allergies													
Birth defects													
Cancer													
Colitis													
Depression													
Heart attack													
High blood pressure													
Kidney disease													
Liver disease													
Migraines													
Mental illness													
Seizure disorder													
Intellectual Disability													
Learning disorder													
Attention problems													
Suicide/suicide attempt													
Other													

Family member	Living?	Age	Current health			If deceased, reason for death
			Good	Fair	Poor	
Father						
Mother						
Brothers						
Sisters						

SCHOOL HISTORY

Has child been enrolled in a nursery or day care? [ ] Yes [ ] No At what age? ____________

Has child attended kindergarten? [ ] Yes [ ] No At what age? ____________

Has child begun elementary school? [ ] Yes [ ] No

At what age did he/she enter first grade? ________ What is present grade placement? ________

If your child has ever been to school (including nursery, kindergarten, and grade school), complete the following for all grades beginning with nursery and ending with current placement. Please indicate if your child repeated a grade or is in a special class (gifted/talented, learning disabled, behavior disordered, emotionally disabled, etc.).

Grade	School	Comments

Current school performance (for children ages 6 and older): [ ] Does not go to school

	Failing	Below average	Average	Above average
a. Reading				
b. Writing				
c. Arithmetic/math				
d. Spelling				
Other academic subjects (history, science, foreign language, geography, etc.				
e.				
f.				
g.				
h.				

PARENTAL CONCERNS

What do you feel is your child's main problem? ____________________

What do you feel caused your child's problem? ____________________

What have you been told by doctors, teachers, and/or others about your child's problems? ____________________

Has your child had any other mental health evaluations or treatment? ____________________

What have you done to try to manage your child's problem? ____________________

Has any other member of your child's immediate family had mental health treatment? ____________________

Other comments: ____________________

May we contact the child's primary physician? [ ] To receive information [ ] To give information

____
(Signed) Parent or guardian

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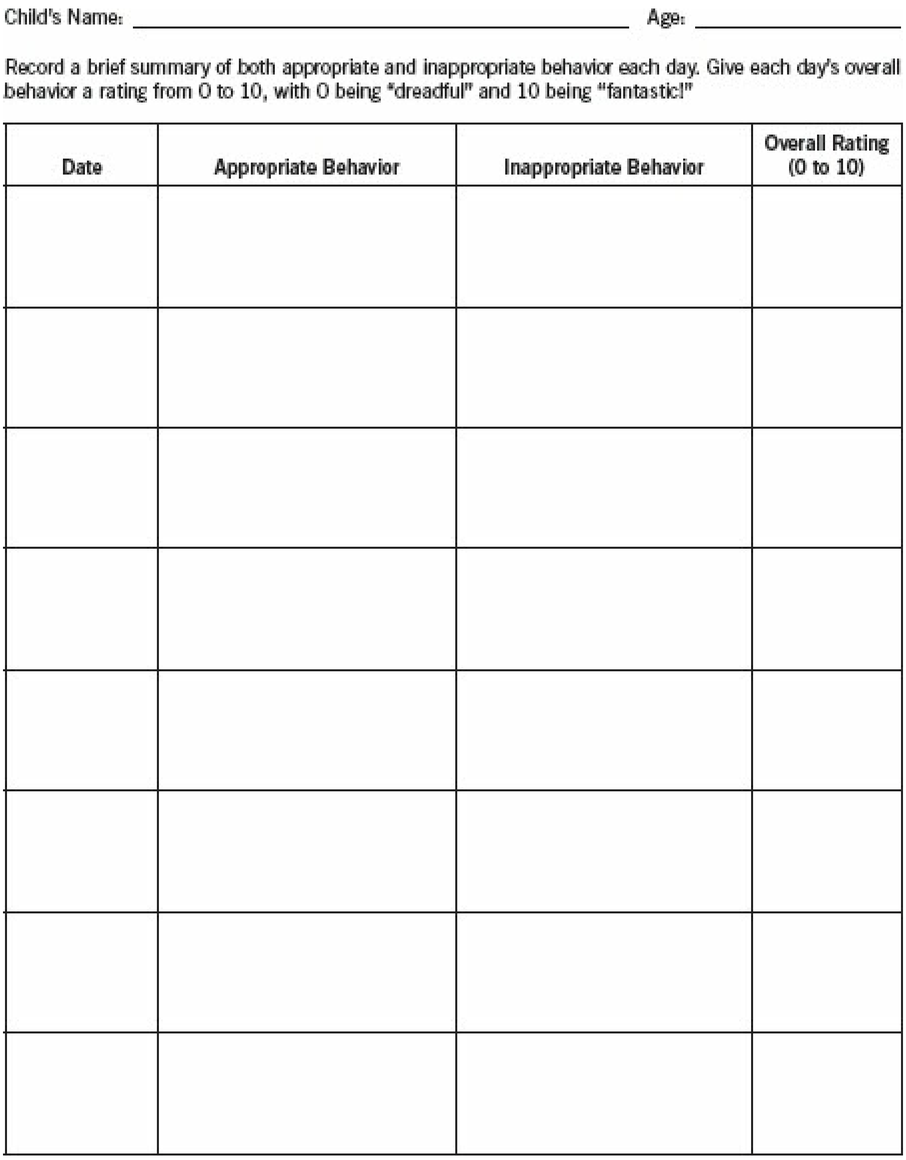
APPENDIX B.2

Daily Log



Child's Name: ______________________________ Age: ____________

Record a brief summary of both appropriate and inappropriate behavior each day. Give each day's overall behavior a rating from 0 to 10, with 0 being "dreadful" and 10 being "fantastic!"

Date	Appropriate Behavior	Inappropriate Behavior	Overall Rating (0 to 10)

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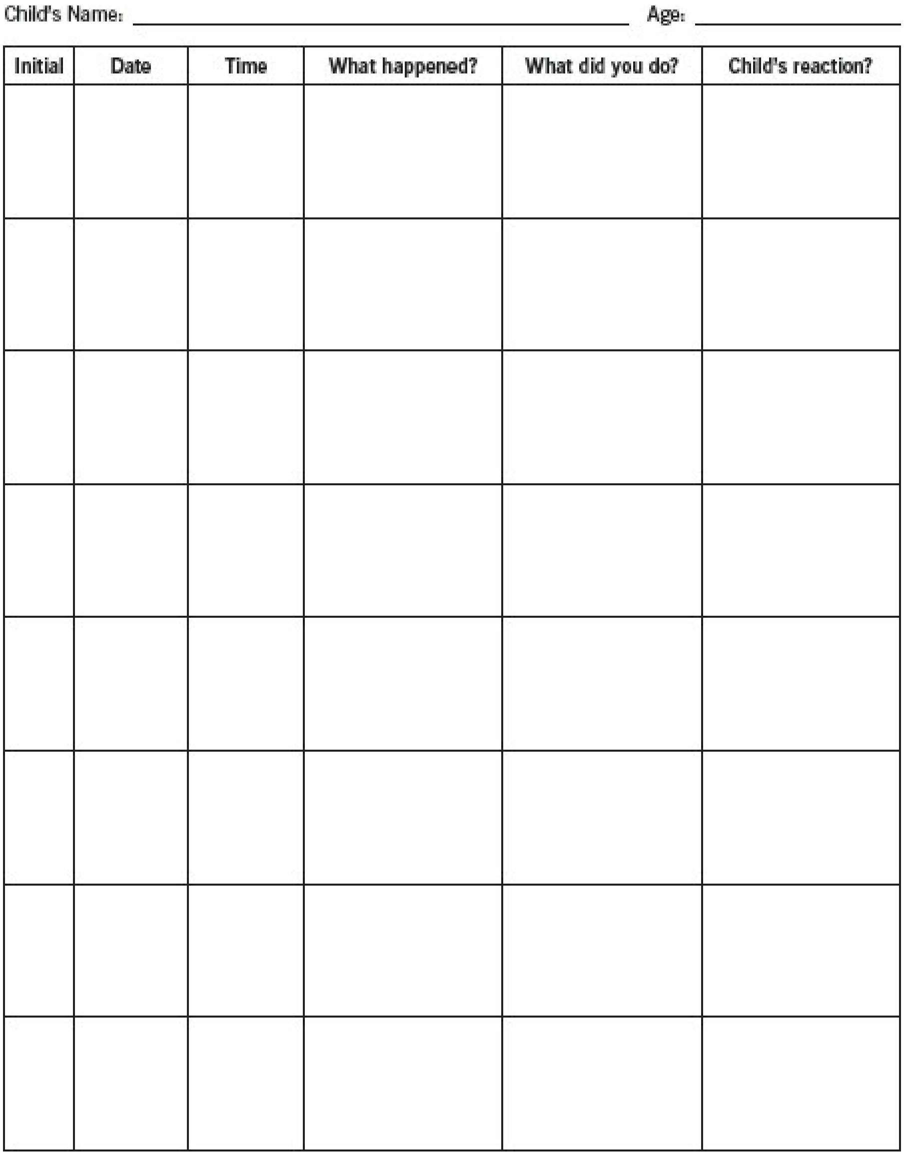
APPENDIX B.3

Specific Events Causing Concern



Child's Name: ______________________________ Age: __________

Initial	Date	Time	What happened?	What did you do?	Child's reaction?

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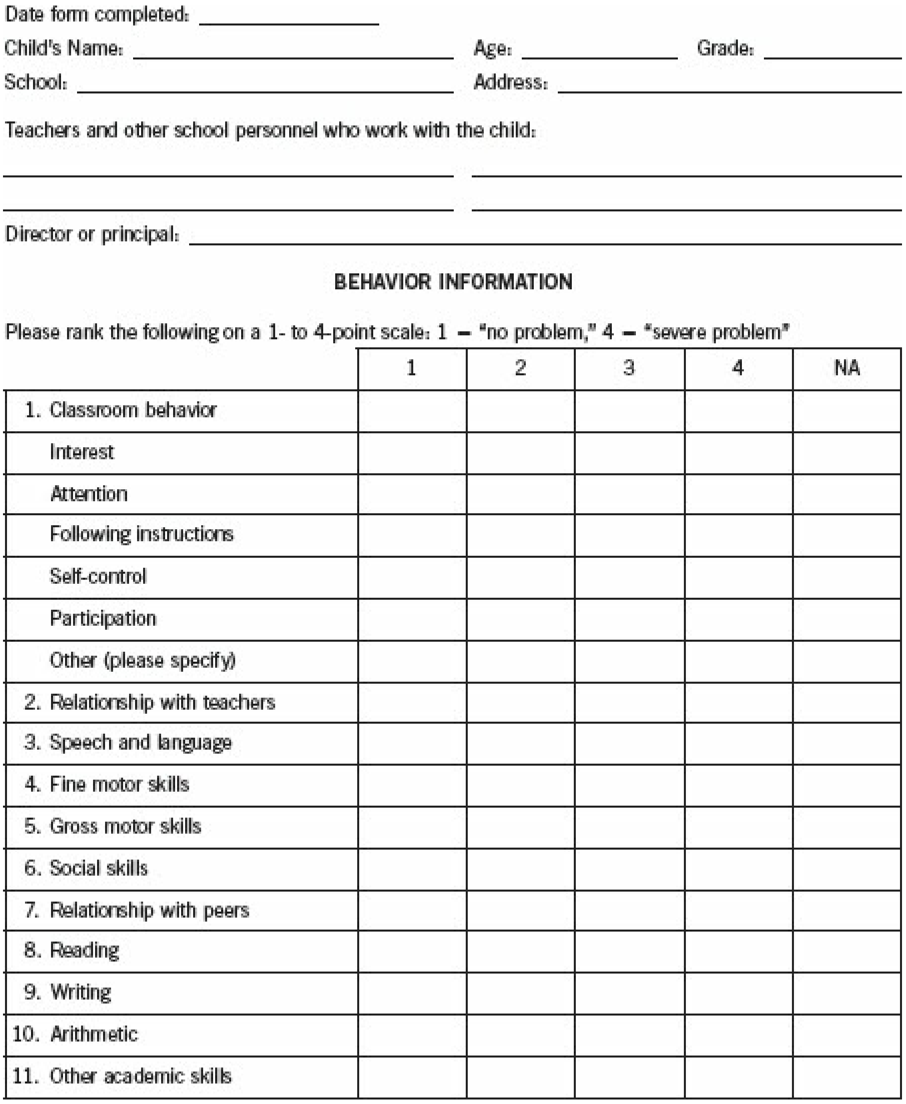
APPENDIX B.4

Teacher Questionnaire



Date form completed: ______________

Child's Name: ______________________ Age: __________ Grade: __________

School: ______________________ Address: ______________________

Teachers and other school personnel who work with the child:

______________________ ______________________

______________________ ______________________

Director or principal: ______________________

BEHAVIOR INFORMATION

Please rank the following on a 1- to 4-point scale: 1 = "no problem," 4 = "severe problem"

	1	2	3	4	NA
1. Classroom behavior					
Interest					
Attention					
Following instructions					
Self-control					
Participation					
Other (please specify)					
2. Relationship with teachers					
3. Speech and language					
4. Fine motor skills					
5. Gross motor skills					
6. Social skills					
7. Relationship with peers					
8. Reading					
9. Writing					
10. Arithmetic					
11. Other academic skills					

	1	2	3	4	NA
12. Homework completion/organization					
13. Test performance					
14. Home background					
15. Intelligence level					
16. Physical problem (please specify)					
17. Other problems (please specify)					

Do you think the child is functioning at his or her age level in:

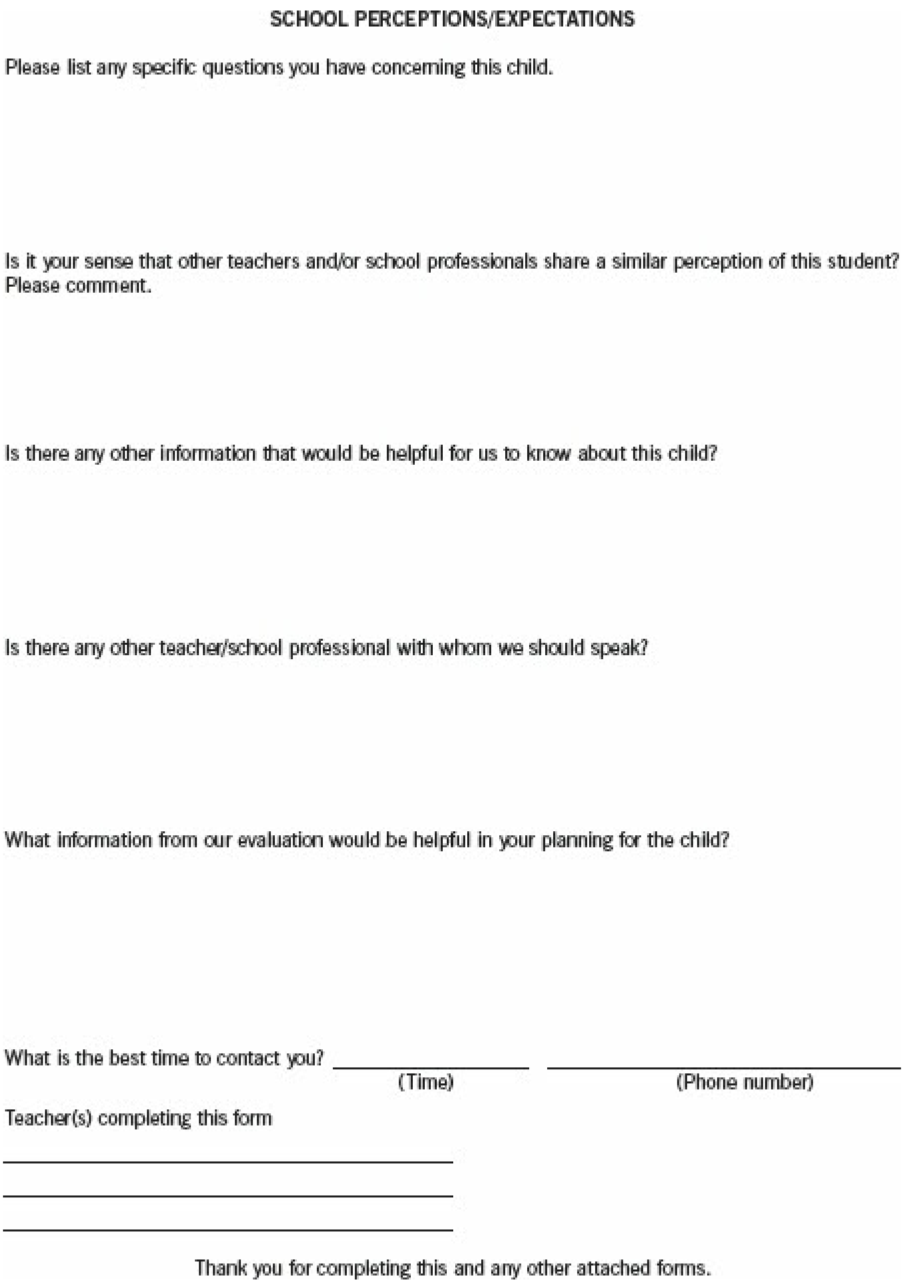
	Yes	No	Comments
Behavior			
Social adjustment with peers			
Social adjustment with adults			
Academics			

Please list the child's strengths and weaknesses as you see them in the classroom.

Strengths	Weaknesses

What academic and/or behavioral techniques have been attempted with the child? Have any been helpful? (Please be as specific as possible.)

Have you had to make any special accommodations for this child? If so, please describe.



SCHOOL PERCEPTIONS/EXPECTATIONS

Please list any specific questions you have concerning this child.

Is it your sense that other teachers and/or school professionals share a similar perception of this student? Please comment.

Is there any other information that would be helpful for us to know about this child?

Is there any other teacher/school professional with whom we should speak?

What information from our evaluation would be helpful in your planning for the child?

What is the best time to contact you? ____________________ ______________________________
(Time) (Phone number)

Teacher(s) completing this form

____
____
____

Thank you for completing this and any other attached forms.

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