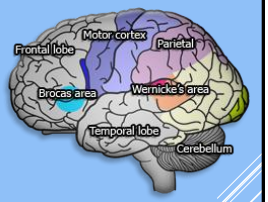
THE NEUROPSYCHOLOGY OF STRESS & TRAUMA:
"HOW TO DEVELOP A TRAUMA-INFORMED SCHOOL"



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PRESENTATION GOALS

1. Define **trauma**, and discuss the prevalence rate of trauma and stress for school aged children.
2. Discuss the impact of the **COVID-19** pandemic, and steps taken to return children and staff back to school safely.
3. Discuss key **brain regions** impacted when students experience trauma, and the subsequent effect on academic and social skills' development.
4. Discuss **five** essential features toward the development of a *"trauma-informed"* school.
5. Present an **assessment algorithm** for psychologists to craft a *"trauma-sensitive"* assessment.

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Dr. Feifer's Journey 1992 – present

- School psychologist 20+ years
- Diplomate in school neuropsychology (ABSNP) & faculty instructor in SNP training program.
- 2008 **Maryland School Psychologist of the Year**
- 2009 **National School Psychologist of the Year**
- Author: **8 books** on learning and emotional disorders
- Test Author: **FAR & FAM & FAW & PASS-12**
- Currently in private practice at Monocacy Neurodevelopmental Center in Frederick, Maryland

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PRESENTATION OUTLINE

- Defining Trauma
- Symptoms of Trauma
- The Impact of COVID-19
- ACES Study
- Trauma and the Brain
- Hope and Resiliency
- 5 Pillars of a Trauma Informed School
- Trauma Informed Assessment

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PREVALENCE OF TRAUMA

* **26%** of children will have experienced or witnessed a traumatic event by their **4th** birthday (Briggs-Cowan et al, 2010).

* A traumatic event is defined by APA as a direct or **perceived** threat rendering a child feeling overwhelmed and fearful of their safety.

* Traumatic stress reactions in children often lead to difficulty self-regulating emotions, heightened aggression, lack of trust, and poor school performance (Diamanduros et al, 2018).

Washington DC: *" March for our lives"* March 24th, 2018

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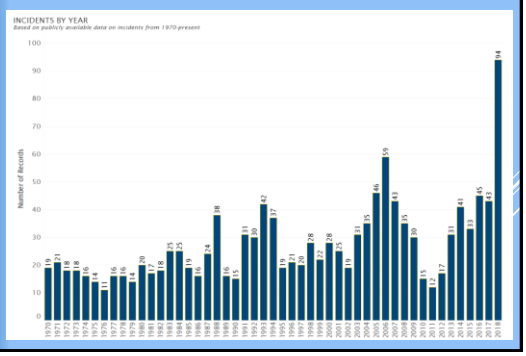
PREVALENCE OF TRAUMA: SCHOOL SHOOTINGS



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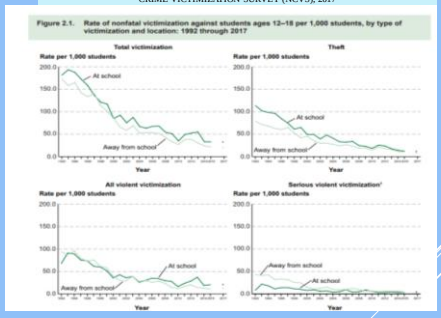
SCHOOL SAFETY TRENDS

SOURCE: U.S. DEPARTMENT OF JUSTICE, BUREAU OF JUSTICE STATISTICS, NATIONAL CRIME VICTIMIZATION SURVEY (NCVS), 2017



***Nonfatal victimization includes rape, sexual assault, robbery, and aggravated assault.**

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DEFINING TRAUMA

- **Trauma:**
- Childhood maltreatment
- Violence exposure
- Depriving care environments
- Adverse community trauma *(i.e. crime, gangs, poverty etc..)*
- Natural disasters or **pandemic**

- According to SAMSHA (2020), **2/3rd's** of children report one traumatic event by age 16.
- **1 in 5** students report bullying…**1 in 6** cyberbullying.
- Approximately **8.7** percent of all adults—1 of 13 people in this country—will develop PTSD during their lifetime. Women twice as likely as men (Sidran Institute, 2018).

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SUBTYPES OF TRAUMA

(NCTSN, 2021)

Bullying (peer victimization) - a deliberate attempt to inflict social, emotional, physical, and/or psychological harm to someone perceived as being less powerful. Bullying can be physical (hitting, tripping, kicking, etc.), verbal (teasing, taunting, threatening, sexual comments), social (spreading rumors, embarrassing someone in public) or include cyberbullying through social media.

Community Trauma - exposure to intentional acts of interpersonal violence committed in public areas by individuals not necessarily related to the victim. Includes homicides, sexual assaults, robberies, shootings, gang related violence and weapons attacks.

Complex trauma - exposure to multiple traumatic events often of an invasive and interpersonal nature, such as abuse, sexual abuse, or profound neglect. The trauma often occurs early and often in life, and can disrupt many aspects of the child's development and ability to form secure attachments.

Early childhood trauma - traumatic experiences that occur in children aged 0-6. These types of traumas can be the result of intentional violence, such as child physical or sexual abuse, or the result of natural disaster, accidents, or war. Young children also may experience traumatic stress in response to painful medical procedures or the sudden loss of a parent/caregiver

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SUBTYPES OF TRAUMA
(NCTSN, 2021)

Intimate Partner Violence (IPV) - occurs when an individual purposely causes harm or threatens the risk of harm to a partner or spouse. Tactics used in IPV can be physical, sexual, financial, verbal, or emotional in nature and can also include stalking, terrorizing, humiliation, and intentional isolation from social supports and family. Children are silent victims of IPV, and some are directly injured, while others are frightened witnesses.

Pediatric medical trauma - refers to a set of psychological and physiological responses of children and their families to pain, injury, serious illness, medical procedures, and invasive or frightening treatment experiences. Medical trauma can occur as a response to a single or multiple medical events

Physical abuse - one of the most common forms of child maltreatment. Legal definitions vary occurs when a parent or caregiver commits an act that results in physical injury to a child or adolescent, such as red marks, cuts, welts, bruises, muscle sprains, or broken bones, even if the injury was unintentional

Sexual abuse -any interaction between a child and an adult in which the child is used for the sexual stimulation of the perpetrator or an observer. Non-touching behaviors can include voyeurism (trying to look at a child's naked body), exhibitionism, or exposing the child to pornography.

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SYMPTOMS OF TRAUMA

- Anger
- Persistent feelings of sadness and despair
- Flashbacks
- Unpredictable emotions
- Physical symptoms, such as nausea and headaches
- Intense feelings of guilt, as if they are somehow responsible for the event
- An altered sense of shame
- Feelings of isolation and hopelessness
- Academic failure

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SYMPTOMS OF TRAUMA

Physiological Symptoms (anxiety disorder?)	Behavioral Symptoms (depression?)	Psychological/Cognitive Symptoms (ADHD?)
Shallow Breathing	Work Refusal	Inconsistent attention
Facial Flushing	School Refusal	Irritability
Excessive Sweating	Avoiding unstructured areas	Mind goes blank during tests
Hand Tremors	Sensitivity to loud sounds	Loses train of thought
Dizziness	Rarely volunteers in class	Poor organization
Dilated Pupils	Speaks in a hushed voice	Easily angered
Fatigue	Does not initiate peers	Poor emotional self-regulation
Muscle Tension	Avoids cafeteria	Distrusts authority figures
Chest pains	Often visits school nurse	Irrational fears

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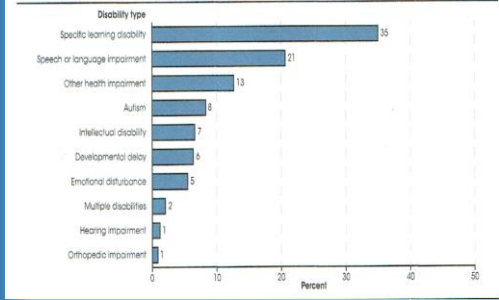
PERCENTAGE OF CHILDREN WITH DISABILITIES

Figure 1. Percentage distribution of children ages 3–21 served under the Individuals with Disabilities Education Act (IDEA), Part B, by disability type: School year 2013–14



- **13-14% receive services…..where do you slot trauma?**

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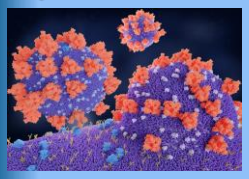
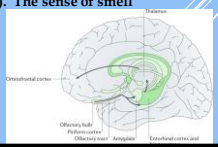
COVID-19



- 7 strains of coronavirus found in humans.
- Spike proteins of SARS-COV-2 (red) bind to ACE2 proteins (blue), and that is the entry to the target cell.
- ACE2 proteins are found on the surfaces of many cells, tissues, and organs throughout the body.

- The virus can invade the central nervous system and enter the brain through the 1st cranial nerve (olfactory). The sense of smell bypasses thalamus and enters brain at piriform cortex and also hippocampus.
- Loss of smell (Anosmia)
- Loss of taste (Aguesea)
- 1/3rd of cases in Wuhon had neurological symptoms.
- Follow up neuropsych may be needed.



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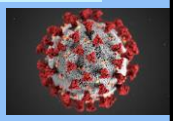
EVIDENCE THAT COVID19 CAUSES NEUROLOGICAL DYSFUNCTION

- Brains of deceased patients show evidence of partial neuronal degeneration (Xu et al., 2020)
- Recent study in France revealed **43%** of patients had signal abnormalities in medial temporal lobe, a key memory center (Kramer et al., 2020)



- Neurological abnormalities were documented in up to **50%** of the most severely ill patients in the UK including impaired consciousness and neuromuscular disease (Roberts et al., 2020).
- Of 841 patients hospitalized with COVID-19 (mean age 66.4 years) in Spain, nearly **58%** developed neurological symptoms (Romero-Sanchez, et al., 2020).
- Headaches are the most common neurological symptom followed by olfactory and gustatory dysfunction in over **80%** of patients in a large European sample (Lechien et al., 2020).
- Scientists believe the virus either enters the brain either hematogenous (blood-brain barrier) or transsynaptic through cranial nerves.
- Should the true name by **NEUROCOVID-19**?

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COGNITIVE DEFICITS AND COVID-19

- **Adam Hampshire** and colleagues (2020) examined over 84,000 patients suspected or biologically confirmed COVID patients using an on-line intelligence questionnaire called the Great British Intelligence Test (UK Dementia Research Institute)
- Tasks included **9 measures** of processing including spatial span, mental rotation, semantic reasoning, vocabulary definitions, digit span, Tower of London, and block designs.
- Preliminary results were as follows:

  - .57 SD lower scores for patients on ventilator
  - .50 SD lower scores for patients hospitalized (no ventilator)
  - .25 SD lower scores for patients with respiratory problems.
  - .25 SD lower scores for patients with general symptoms.

  ❖ Spatial working memory, attention, and semantic problem solving were lowest scores
  ❖ Nets out to 8.5 point drop in IQ for most severe patients.

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COGNITIVE DEFICITS AND COVID-19: EXECUTIVE DYSFUNCTION AND BRAIN FOG

- Executive functioning deficits and brain fog symptoms persisting months after recovery from COVID-19 (Goldberg et al., 2021)
- 33% of patients reported dysexecutive syndrome including inattention, disorganization, and disorientation. Bilateral frontotemporal hypo-fusion was common MRI finding. **Helms, J. (2020). Neurological features in severe SARS-COV-2 Infection. New England Journal of Medicine.**
- Large **megakaryocytes-** which are bone marrow cells responsible for blood clotting- crossing blood-brain barrier in COVID-19 patients. This may be leading to brain fog and cluttering neural connections. **Nauen et al (2021). Assessing brain capillaries in COVID-19. JAMA Neurology.**

EF Traits Particularly Impaired:

- Lexical Fluency
- Attention
- Processing Speed
- Working Memory

Beaud et al. (2020). Pattern of cognitive deficits in severe COVID-19. Journal of Neurology, Neurosurgery, Psychiatry.

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COVID-19: HOW DO WE RETURN TO SCHOOL?

- Nearly **1.6 billion** students in **190** countries out of school.
- **NASP** advocates *universal screening* of social-emotional needs within a MTSS framework.
- Allow students and teachers to feel safe and comfortable in the building. **Celebrate** being back in school!!
- Educators will need to be patient with academic skills as there may be **gaps in learning** *(i.e. math and foreign language).*
- Social distancing may need to continue so expect schedule adjustments and/or hybrid distance models.
- Masks, gloves, thermal temperature checks, sanitizer stations, etc. may be needed.
- Limitations on extra-curricular activities and sports.
- Work with parents to discuss coronavirus myths and best practices moving forward.

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Pandemic Anxiety Screening for Students™–12

Learn more...

- **Purpose:** Assesses the impact of the pandemic on a student's everyday functioning.
- **Format:** Online administration and score report with specific recommendations via PARiConnect.
- **Age range:** 4 years to 18 years
- **Time:** 3 - 5 minutes to administer and score

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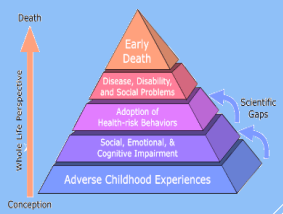
ADVERSE CHILDHOOD EXPERIENCES

- The *Adverse Childhood Experiences Study* (ACE Study) conducted by both Kaiser Permanente and the Centers for Disease Control and Prevention, examined the long term impact of childhood trauma from participants recruited more than 20 years ago from 1995-1997.



- **Conclusion 1:** Adverse childhood experiences are common. For example, 28% participants reported physical abuse and 21% reported sexual abuse.
- **Conclusion 2:** Adverse childhood experiences often occur together. Almost 40% of the original sample of 17,000 participants reported two or more ACEs and 12.5% experienced four or more.
- **Conclusion 3:** The cumulative impact of adverse childhood experiences leads health, social, and behavioral problems throughout the lifespan.

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ACES CRITICISM!

1. Sample – non randomized as all 17,000 participants were members of Kaiser Permanente and therefore had access to **excellent health care**, resided in **southern California**, and were mostly **white** and **college educated** with an average age of **57 years old**.
2. The use of a binary or "yes-no" scoring system to a set of heterogeneous questions lacks psychometric sophistication and assumes each ACE carries an equivalent weight (McLennan et al., 2020).
3. Numerous questions omitted such as peer victimization, exposure to community violence, and lower socio-economic status (Finkelhor et al., 2015).

Number of Adverse Childhood Experiences (ACE Score)	Women	Men	Total
0	34.5	38.0	36.1
1	24.5	27.9	26.0
2	15.5	16.4	15.9
3	10.3	8.6	9.5
4 or more	15.2	9.2	12.5

- The brain does not care about the source of an ACE and cannot distinguish one type of toxic stress from another.

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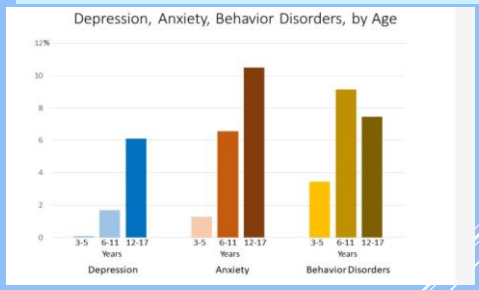
FAST FACTS ABOUT MENTAL HEALTH DISORDERS
(CENTERS FOR DISEASE CONTROL AND PREVENTION, 2020)



- Among children aged 2-8 years, **boys** were more likely than girls to have a mental, behavioral, or developmental disorder.
- Among **children in poverty**, more than **1 in 5 (22%)** had a mental, behavioral, or developmental disorder. Perhaps poverty is the true trigger leading to the development of many ACEs?

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SCHOOL MENTAL HEALTH SERVICES

- NASP recommends 1 psychologist for every 500-700 students. Reality is 1 for every 1,381.
- American School Counselor Association recommends 1 counselor for every 250 students. Reality is 1 for every 482 students.
- The Every Student Succeeds Act (ESSA) authorizes various funding streams for schools to improve access to coordinated school mental health services including:
  - * Positive behavior interventions and supports (PBIS).
  - * Social emotional learning
  - * Conflict resolution
  - * Trauma informed practices

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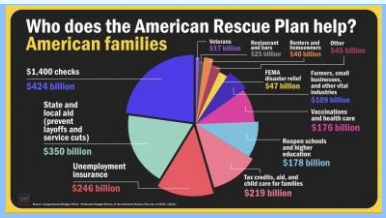
AMERICAN RESCUE PLAN (MARCH, 2021)



- **$170 billion** for the Department of Education, with **$122.8 billion,** going to the Elementary and Secondary School Emergency Relief Fund.
- The Individuals with Disabilities Education Act (IDEA) will receive **$3 billion.**
- The American Rescue Plan Act also includes **$1.5 billion** for services and programs that address mental health and substance use disorders.
- **$30 million** will go toward Project AWARE, which builds mental health awareness and violence prevention, and **$20 million** in funding to youth suicide prevention, and **$100 million** for mental and behavioral health training.

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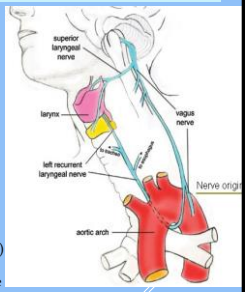
POLYVAGAL THEORY: HOW THE NERVOUS SYSTEM BECOMES SENSITIZED TO FEAR?

Vagus Nerve – 10th cranial nerve and longest in body. Literally "wanders" from brain to the digestive system. Arranged in a hierarchical fashion and functions to calm the body through homeostasis.



Polyvagal Theory- Stephen Porges (2009)

- **Dorsal Vagus –** older pathway that triggers "freeze" response, immobilization, or dissociation (parasympathetic)
- **Fight-Flight –** dominated by physiological responses of sympathetic nervous system. Takes body 15-20 min to self-calm (sympathetic)
- **Ventral Vagus –** newer pathway that inhibits older pathways and triggers calming influence of parasympathetic nervous system through **social engagement and trust**. Provides **brakes** to behavior!

* Primitive systems activated when more evolved system fails*

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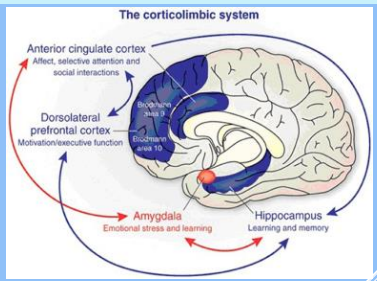
CORTICOLIMBIC SYSTEM AND TRAUMA



1. Amygdala – responds to **unfamiliar** and **unexpected** events (Kagan, 2007). …Trauma alters our **threat perceptions,** and interprets benign situations as dangerous.

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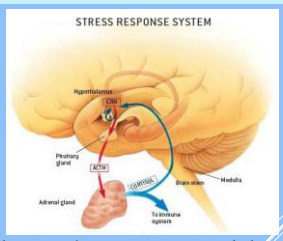
STRESS RESPONSE SYSTEM

Cortisol – a glucocorticoid (glucose-cortex-steroid) that regulates the metabolism of glucose in the brain. A homeostasis of cortisol is needed for optimal brain functioning and efficient mobilization. Too much *(Cushing's Syndrome)*…too little *(Addison's Disease)*.



- Stress impacts body by lowering **immune system**, and also by reducing sleep.
- Stress alters amygdala to PFC connections leading to impairments in **executive functioning** (Berens et al., 2017).
- Anxiety impacts cognition and learning by way of **working memory** (Dowker et al., 2015).

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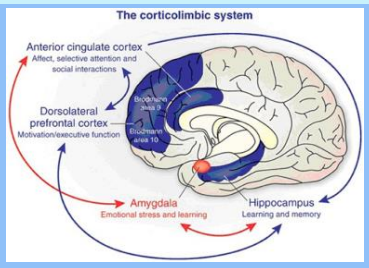
CORTICOLIMBIC SYSTEM AND TRAUMA



2. Hippocampus - A key **memory center** and more sensitive to cognitive than emotional memories. Helps to inhibit amygdala. **Chronic stress** from abuse or neglect releases cortisol which can reduce hippocampal volume. (Johnston & Olson, 2015).
* Neurogenesis can occur in dentate gyrus.

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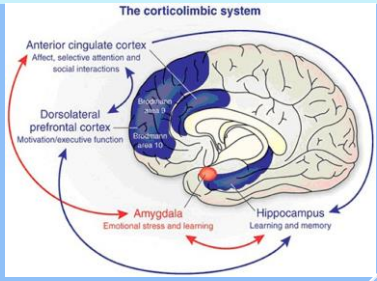
CORTICOLIMBIC SYSTEM AND TRAUMA



3. Anterior Cingulate Cortex - Directs our **attention inward** toward becoming overly aware of nervous system fluctuations and visceral responses *(i.e. heart rate increases, breathing rate, perspiration, etc.)*. ***Trauma is felt in the body!**

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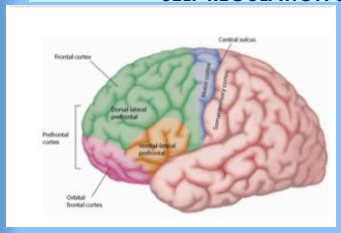
ORBITAL FRONTAL CORTEX AND TRAUMA: SELF REGULATION SKILLS



*** Self-regulation of social skills functioning –** children who have been abused or neglected often experience tremendous challenges developing **trust with others** and establishing stable interpersonal relationships.

4. Orbital-frontal Cortex - children who have experienced have difficulty accurately identifying their own emotions, as well as comprehending the emotional states of others. **Emotional EF DEFICITS!**

- **Social Dyslexia –** misread social cues and highly reactive to misperceived slights and inability to comprehend how behavior may disrupt the learning environment. **Emotionally egocentric**. 34

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SUMMARY OF TRAUMA ON THE BRAIN

(BERENS ET AL., 2017)

Brain Alterations	Functional Implication
* Global gray matter changes * Decreased volume in PFC and hippocampus.	* Impairments in executive functions, working memory, and cognitive control.
*Aberrant amygdala activity *Alterations in amygdala-PFC connectivity.	*Emotional dysregulation *Poor stress regulation
*Systemic immune suppression *Impaired glucose regulation	* Increased risk of disease & sickness * Heightened risk for diabetes
*Elevated cortisol levels leading to hyper and hypo-stress system responses.	*Dysregulation of sympathetic and parasympathetic pathways

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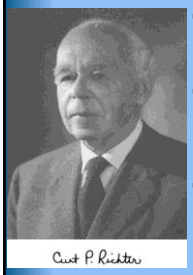
THE IMPACT OF HOPE



- 1957- Curt Richter, a geneticist and psycho-biologist at Johns Hopkins University was studying the physiology of survival for the navy.
- He first took a dozen domesticated rats, put them into jars half-filled with turbulent water, and watched them drown. 9 of 12 rats did not give up and swam for up to 48 hours before perishing.
- He had his graduate students capture 12 more rats from the streets of Baltimore. They were much more fierce and aggressive. Yet virtually all drowned within the first few minutes.
- He then tweaked the experiment…took wild rats and before they drowned…picked them up and coddled them. Afterwards, he put them back in the jar, and they survived much longer.

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THE IMPACT OF HOPE

Complex Trauma - multiple traumatic experiences which occur in childhood and adolescence, including multiple occurrences of emotional abuse and neglect, sexual abuse, and physical abuse.

- Meta-analysis of 80 studies containing **12,252** survivors of child sexual abuse found the mean prevalence of sexual revictimization across studies was **47.9%,** suggesting that almost half of child sexual abuse survivors are sexually victimized in the future **(Walker et al., 2019)**
- Complex trauma recovery involves both **external factors** *(i.e. access to mental health care, financial assistance, education, family support, etc…)* and **internal protective factors** such as emotional competence, feelings of optimism, external attribution of blame, and hope.

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MODIFIERS OF TRAUMA ON THE BRAIN

(BERENS ET AL., 2017; TRAUB & BOYNTON-JARRETT, 2017)

- Pre-existing health conditions
- Family structure, stability and supports
- Timing of stress (early critical periods are worst)
- Type of traumatic event *(i.e. sexual, emotional, physical, etc.)*
- Cumulative occurrences
- Access to mental health services
- Mental health of caregivers *(maternal)*
- Positive temperament
- Get back into a routine

Developing Resiliency?

* **Epigenetics** is the study of gene expression in the wake of environmental circumstances.

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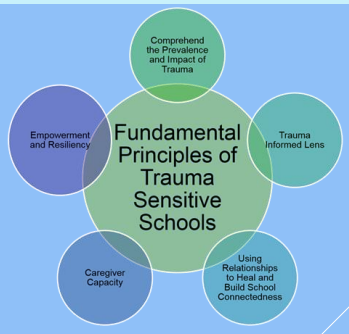
5 PILLARS OF A *"TRAUMA INFORMED"* SCHOOL



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1. UNDERSTANDING CHILDREN'S TRAUMATIC STRESS RESPONSES

(NCTSN, 2012)

1. Traumatic experiences are inherently complex: (*There is no signature emotional reaction that all children exhibit.)*
2. Danger and safety are core concerns in the lives of traumatized children.
3. Traumatic experiences affect the family and broader caregiving systems.
4. Developmental neurobiology underlies children's reactions to traumatic experiences.

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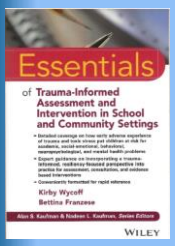
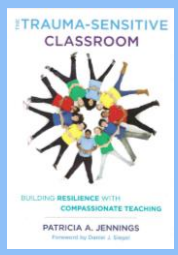
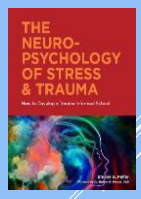
1. TRAUMA BOOK CLUB







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2. TRAUMA SCALES

(1) Measure Name	(2) Measure Type	(3) Audience	(4) ACEs	(5) Strengths	(6) Limitations	(7) Other Considerations
Childhood Trauma Questionnaire®	Self-reported survey	12 years +	-emotional abuse -physical abuse -sexual abuse -emotional neglect -physical neglect	Satisfactory validity and reliability when compared with other methods such as staff observations.	Multiple primary studies report differing results for the appropriate structuring/sequencing of the questions.	Time: 5 minutes Fee: None Qualifications: Master's degree or equivalent
Juvenile Victimization Questionnaire-second revision (JVQ-R2)[1]	Structured interview and child self-reported survey	8-17 years	-emotional abuse -physical abuse -sexual abuse -emotional neglect -physical neglect -mother treated violently -household substance abuse	Demonstrated reliability with community and child welfare samples in the U.S. and wider populations.	None reported.	Time: 20-30 minutes Fee: None Qualifications: Experienced test examiner, qualified professional for interpretation
Trauma Symptom Checklist for Children (TSCC-C; TSCC-A)[2]	Self-reported survey	8-16 years	-emotional abuse -physical abuse -sexual abuse -emotional neglect -physical neglect -mother treated violently	Several studies report that TSCC-C is a statistically reliable and valid tool that has been studied for large samples of racially and socio-economically diverse populations.	TSCC-C requires additional studies on reliability and validity in children under age 7. Studies evaluating TSCC-A may not be representative of the nationwide population due to their small and geographically limited sample population.	Time: 10 minutes Fee: $178 for introductory kit Qualifications: Undergraduate degree with clinical training or license/certification in use of psychological tests
Adolescent Dissociative Experiences Scale (A-DES)[3]	Self-reported survey	11-16 years	-emotional abuse -physical abuse -sexual abuse -emotional neglect -physical neglect	Strong reliability and validity as reported by several studies.	Mean scores of the results have varied greatly and no validated cut-off score has been established.	Time: Unknown Fee: Minimal Qualifications: Undergraduate degree, clinical training

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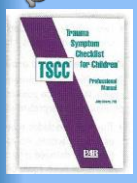
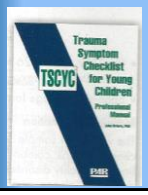
2. TRAUMA SCALES



- **Trauma Symptom Checklist for Children**
  - 54 item self report checklist (15-20min)
  - Ages 8-16
  - Scoring software on PAR iconnect
  - Anxiety, Depression, Anger, PTSD, Dissociation, and Sexual Concerns
  - Gender appropriate norms



- **Trauma Symptom Checklist for Young Children**
  - 3- 12 years old
  - Caretakers rate 90 symptoms on a 4 point scale (20 min)
  - Eight clinical scales
  - Focus on child abuse, peer assault, community violence.

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FEIFER ASSESSMENT OF CHILDHOOD TRAUMA (SEPT 29TH, 2021 RELEASE)

- Teacher edition for students ages 4-18.
- Digitally administered and scored on PIC
- 79 questions (*never, rarely, often, always*)
- Approximately 10 minutes to complete
- Gender and age-based norms
- Total Trauma Score
  - a) 4 Clinical Scale Scores (Physiological, Emotional, Behavioral, and Academic)
  - b) Supplemental Scales (Resiliency, Critical Items, Infrequency)
- Ideal to generate 504 recommendations

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FEIFER ASSESSMENT OF CHILDHOOD TRAUMA

4 CLINICAL SCALES

1) Physiological Scale: Children who have experienced physical trauma may have sensory disabilities and/or bodily sensitivities and have difficulty with physical boundaries, touch, and regulating their sympathetic nervous system.

2) Behavior Scale: Children who have been abused or neglected often experience tremendous challenges developing trust with others and establishing stable interpersonal relationships with others. A measure of flight-fight responses.

3) Emotional Scale: Children who have experienced early trauma, particularly interpersonal trauma such as abuse or neglect, have difficulty accurately identifying their own emotions as well as comprehending the emotional states of others.

4) Academic Scale: Traumatized children often experience significant academic problems, often due to deficits with various aspects of attention, memory, and executive functioning skills.

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FEIFER ASSESSMENT OF CHILDHOOD TRAUMA

I. **Resiliency Scale** - designed to help clinicians determine current levels of adaptive functioning and coping skill behaviors. Low scores on the Resiliency scale can indicate a greater propensity for being retraumatized as well as the need for increased mental health and community support services.

II. **Critical Items** - The FACT includes seven critical items *(e.g., self-harm, feelings of hopelessness)* to determine whether immediate follow-up by a mental health professional is warranted.

III. **Infrequency Scale** – consists of three targeted items designed to measure whether the rater has remained attentive to the content of each question or endorsed items in an atypical fashion.

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3. CAREGIVER CAPACITY AND RESILIENCY
(TRAUB AND BOYNTON-JARRETT, 2017)

1. Positive appraisal style impacts executive functioning skills and facilitates cognitive restructuring.
2. Following trauma exposure, caregivers play a critical role influencing a child's overall social-emotional response and adaptation (McLeod et al., 2007).
   a) Neglectful
   b) Democratic
   c) Authoritative
   d) Authoritarian
3. Maternal mental health most influences coping
   *(*16 million children live with a depressed parent)*
4. Family routines foster resilience.

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3. MEASURING CAREGIVER CAPACITY AND RESILIENCY

- **Parenting Stress Index: 4th Edition**
  *Ages 1-12
  * 120 item inventory focusing on child characteristics, parent characteristics, and situational life stressors.
  * 20 minutes
  * On-line administration and scoring

- **Stress Index for Parents of Adolescents**
  *11-19 years old
  *112 items identifying parent-adolescent interactions.
  * On-line administration and scoring

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4. CLASSROOM ACCOMMODATIONS

- Extended time on tests and quizzes.
- Structure and routine (schedules and emotive responses)
- Preferential seating in class (by door if needed).
- Access to lecture notes when needed.
- Agenda/organization notebooks.
- Frequent breaks when needed.
- Use of a crisis pass.
- Alternative ways to demonstrate mastery
  (*i.e. projects instead of tests)*
- Allow for test re-takes to demonstrate subject mastery.
- Use of technology for note-taking and written language assignments (*Avoid grading in red pen!).
- Scheduling more challenging subjects in morning.
- Allow for partial school days.
- **Awareness of trauma triggers.**
- Create *"Calm Corners"*
- Provide access to on-line learning if needed.

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5. TEACHING RESILIENCY: MINDFULNESS

Mindfulness – focus on breathing from the diaphragm, not the chest, and exhaling on longer slower breaths.

- Strive for 6 -8 breaths per minute.
- Practice breathing techniques when visualizing an anxiety provoking situation.
- Enhances parasympathetic nervous system.

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5. TEACHING RESILIENCY: YOGA

Yoga – assumes the footprint of trauma is in the body and tissues.

- We cannot talk it out, and fear our own bodily sensations (Van Der Kolk, 2012).
- Pain, headaches, muscle tension, tics, panic attacks
- Some research (Albracht-Schulte & Robert-McComb, 2018) suggests Yoga can reduce anxiety and heart rate variability following a stressor, though the induced calmness wears off after 30-40 minutes. More research needed!

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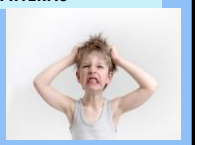
5. USING CBIT AND COGNITIVE RESTRUCTURING TO CHANGE THINKING PATTERNS

- **Extremist-** all or none thinking. Everyone is either great or bad, or my emotions are either positive or negative and there is no nuance of in-between.
- **Inflator –** always over-exaggerating anything bad that may happen and undervalue what is good.
- **Mind Reader** – convinced that others have a bad opinion of you.
- **Predictor** – always focused on the future and not the present, and convinced the future has negative outcomes.
- **Blamer** – always blames others for our own misgivings and never accept responsibility.
- **Perfectionist** – highly critical of others and constantly demeaning and pointing out faults in others.



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5. TAKE TARGETED APP BREAKS

Stop, Breathe & Think

Take a Chill

THE ZONES OF REGULATION

Breethe

Calm

HEADSPACE

Headspace

Square Breathing :
https://www.youtube.com/watch?v=YFdZXwE6fRE

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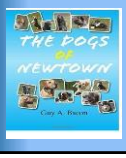
5. CANINE ASSISTED THERAPY

- Provide unconditional warmth and positive emotions.
- Animals do not try to give sage advice, but provide an emotional pathway to heal.
- Presence of a therapeutic animal promotes oxytocin secretion (bond), lower heart rate and blood pressure, and calmness (Beetz et al., 2012).
- Reduces social isolation and promotes sense of connectedness (O'Haire et al., 2015).



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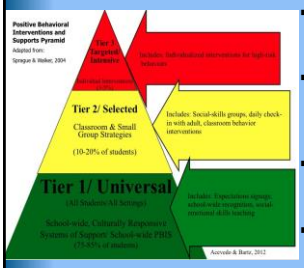
5. PBIS: CHANGE THE SCHOOL CULTURE



- Focus on prevention and not punishment.
- Establish universal rules, consequences, and school climate.
- Gather data to make decisions on children.
- Teach social-emotional academic learning.

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SOCIAL EMOTIONAL ACADEMIC LEARNING

Is this the future of school psychology?

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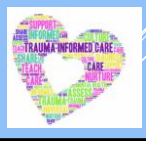
SUMMARY: 5 PILLARS OF TRAUMA INFORMED SCHOOLS

1. Promote **awareness** of the impact of trauma:
   a) In-service presentations
   b) Brochures and pamphlets (NASP & NCTSN)
   c) Parent workshops
2. Develop a school wide **trauma screenings.**
3. **Empower parents**….do not blame them.
4. **De-escalate Stress –** mindfulness, visualize, stay in present, CBIT.
   a) Structure and routine
   b) Recognize trauma triggers
   c) Design "safe" zones
5. Academic **accommodations.**



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PRESENTATION OUTLINE

- Defining Trauma
- Symptoms of Trauma
- The Impact of COVID-19
- ACES Study
- Hope and Resiliency
- Trauma and the Brain
- 5 Pillars of a Trauma Informed School
- Trauma Informed Assessment

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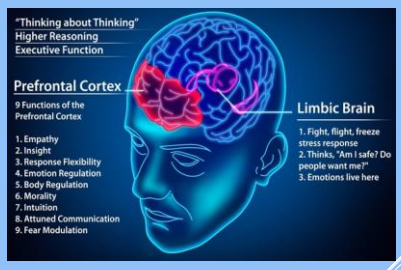
TRAUMA MEASURES



- Executive Functioning
- Memory
- Attention
- Social-Emotional Regulation

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BEHAVIOR RATING INVENTORY OF EXECUTIVE FUNCTIONING (BRIEF2)

- **Behavior Regulation Index (BRI)**
  - Evaluates a child's ability to modulate behavior via appropriate inhibitory control. It is comprised of the **Inhibit** and **Self Monitor** scales.
- **Emotional Regulation Index (ERI)**
  - Evaluates a child's ability to regulate emotional responses and adjust to changes in the environment. It is comprised of the **Shift** and **Emotional Control** scales.
- **Cognitive Regulation Index (CRI)**
  - Evaluates a child's ability to manage cognitive processes and problem solve effectively. Includes **Initiate, Working Memory, Planning, Task-Monitor,** and **Organization** scales.

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MEMORY TESTS

WIDE RANGE ASSESSMENT OF MEMORY AND LEARNING : 3rd Edition (WRAML-3)

- Visual and Verbal Memory Tasks
- Memorize information in context and isolation.
- Attention-Concentration Index
- Immediate Memory
- Delayed Memory
- Recognition Memory
- Ages 5-90

CHILD AND ADOLESCENT MEMORY PROFILE (CHAMP)

- 35 minutes
- Visual and Verbal Memory Tasks
- Immediate and Delayed Memory
- Memorize information in context and isolation.
- Ages 5-21
- Screening Index

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TEST OF EVERYDAY ATTENTION FOR CHILDREN; 2ND EDITION (TEA-CH2)

- 5-7 years old. Normed on 394 children in UK.
- 8-16 years old. Normed on 621 children in UK.
- Measures the cognitive components of attention:
  - **Selective attention**
  - **Sustained attention**
  - **Switching attention**
- Both paper and pencil and computerized tasks.
- Measures reaction time and also auditory vs. visual attention.
- 40-45 minutes

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SOCIAL-EMOTIONAL AND BEHAVIORAL ASSESSMENTS

TEST	AGE RANGE	AUTHORS
BASC-3 Teacher Rating Scale BASC-3 Parent Rating Scale BASC-3 Self-Report Scale BASC-3 Behavioral and Emotional Screen System	2-21 2-21 6-college 3-18	Randy Kamphouse & Cecil Reynolds
Conners Comprehensive Behavior Rating Scales	6-18	Keith Conners
Achenbach System of Empirically Based Assessment (ASEBA)	6-18	Thomas Achenbach & Leslie Rescorla
Devereux Behavior Rating Scale	5-18	Jack Naglieri, Paul LeBuffe, Steven Pfeiffer
Beck Youth Inventory II- (anxiety, depression, anger, disruptive behavior, self concept)	7-18	Judith & Aaron Beck
Children's Depression Inventory	7-17	Maria Kovacs
Revised Children's Manifest Anxiety Scale – 2 Multidimensional Anxiety Scale for Children-2	6-19 8-19	Cecil Reynolds & Bert Richmond John S. March
RCDS-2/RADS-2	7-13/11-20	William Reynolds
Personality Inventory for Children-2nd Edition (caregiver observations)	5-19	David Lachar & Christian Gruber
***Millon Adolescent Clinical Inventory**	13-19	Theodore Millon
***MMPI-A**	14-18	Butcher et al.
***Personality Assessment Inventory**	11-18	Lesley Morey

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PERSONALITY ASSESSMENT INVENTORY (PAI)

- PAI-A & PAI use the same scales and subscales
- Adolescent item set is a derivative of the adult, with fewer items
- Anxiety subtypes (i.e. cognitive, affective, physiological) anxiety related-disorders (i.e. PTSD), depression, thought disorders, social detachment, borderline personality, antisocial behaviors, aggression, and substance abuse,
- 264 items on PAI-A
- 12-18 years
- Treatment recommendations included with computerized scoring system.
- Published in 2007…Lesley Moray

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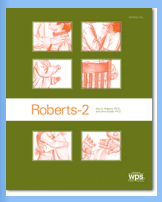
ROBERTS APPERCEPTION TEST-2ND EDITION



- Projective measure assessing maladaptive or atypical social perception.
- Record student responses for scoring.
- 11 picture cards depicting common experiences.
- Scoring involves problem identification, resolution, emotion, outcome, atypical responses.
- Roberts 2 computer scoring program and clinical casebook.

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TRAUMA AND INTELLECTUAL DEVELOPMENT

- An 8 year longitudinal study of children who experienced interpersonal trauma by their primary caregiver, Enlow and colleagues (2012) found these children scored one-half of a standard deviation ***(i.e. 6-8 points)*** lower on IQ tests even after controlling for maternal IQ, birth-weight, and the home environment.
- Earlier studies (Delaney-Black et al., 2002) that found trauma related distress and violence exposure lead to a **7.5 point** decrement in IQ, and approximately a 10 point drop in reading scores on standardized achievement tests.

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KEYS TO A "TRAUMA INFORMED" ASSESSMENT

1. Aggressively measure the **frontal lobes** by selecting tests of attention, memory, and executive functions.
2. Balance **rating scales** with **direct observations.**
   a) **Classroom observations** should focus on time on task, work production, and social interactions.
   b) **Testing observations** should focus on fatigue, attention drift, blunted affect, and trust.
3. **Do not** rely on just one data source *(i.e. projectives)*.
4. **Developmental history** may be the most essential component of the report.
5. Consider all current **stressors** *(i.e. grades, friendships, poverty, teacher, physical, environment, etc..)*
6. Use **DSM5** criteria to establish a condition, **IDEA** to establish eligibility for special education.
7. Avoid using simple **correlations** to explain complex emotional and behavioral problems.

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LET'S STAY CONNECTED

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Books: www.schoolneuropsychpress.com

Trauma Links:
- https://www.nasponline.org/
- https://www.parentcenterhub.org/national-child-traumatic-stress-network/
- https://newsisst-d.org/animal-assisted-therapy-for-trauma/
- https://www.mindful.org/the-science-of-trauma-mindfulness-ptsd/
- https://www.wiley.com/enus/Essentials+of+Trauma+Informed+Assessment+and+Intervention+in+School+and+Community+Settings-p-9781119274612
- https://www.amazon.com/Trauma-Sensitive-Classroom-Building-Resilience-Compassionate/dp/0393711862

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