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ABSTRACT

This paper provides an introduction to Posttraumatic Stress Disorder (PTSD) in a manner that facilitates the interested learner's further exploration. It presents theoretical references and reviews the social factors and epidemiology of PTSD in children and adolescents. The psychobiology of PTSD is described in relation to the types of memory it affects. Symptomatic presentations are outlined by developmental periods in children and adolescents. Treatment for PTSD can be described in four stages: (1) safety; (2) remembrance; (3) mourning; and (4) reconnection. Safety encompasses the healing relationship; naming the problem; restoring control; and medication use. Remembrance involves reconstructing the story; re-experiencing it; and integrating the trauma. Mourning includes the emotions of revenge; forgiveness; compensation; and grief. Reconnection involves taking power; creating boundaries; and reconnecting with self. Formation and implementation of a school reintegration safety plan requires informed and committed school personnel, parents, and students. A school integration safety plan is presented as an effective external support system to help student resiliency. (Contains 81 references and a listing of recommended readings.) (JDM)

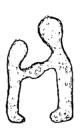


<u>Connection and Recovery:</u> Posttraumatic Stress Disorder and School Reintegration

Catherine Cook-Cottone, Ph.D.

National Association of School Psychologists

Spring 2000



Outline of Presentation*:

*This presentation should provide an introduction to PTSD material in a manner that facilitates the interested learner's further exploration by providing theoretical references, introduction to therapeutic techniques, review of a school reintegration plan, and a bibliography for further reading.

- I. Explicate current social factors related to the incidence of PTSD:
 - A. Prevalence,
 - B. Social stressors.
- II. Review etiological/neurobiological theory related to PTSD.
- III. Symptomatic presentation:
 - A. General symptoms,
 - B. Younger children,
 - C. School-age children,
 - D. Pre-adolescents and adolescents,
 - E. Other signs,
 - F. Dialectic of trauma.
- IV. Describe treatment:
 - A. Treatment structure and stages,
 - B. Stage description,
 - C. Other therapeutic tools,
- V. School Reintegration Plan

A Children's Song Middle Ages

"A ring, a ring, a rosy, A pocket full of posies, Achoo, Achoo, We all fall down."

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TO THE EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

Social Factors and Epidemiology of PTSD in Children
(Christoffel, 1990; Deblinger et al., 1989; Kiser et al., 1991; U.S. Department of Health and Human
Services, 1988)

I. Recent studies have documented that children's exposure to trauma is more prevalent than has been previously expected and epidemic in scope (Saigh, Green, & Korol, 1996)

A. Still, a dearth of reliable studies regarding prevalence of PTSD in youth:

- 1. Berton and Stabb (1996) found 29% of urban adolescents present with PTSD symptoms
- 2. Such studies typically have methodological flaws, such as small sample size and poor sampling techniques
- B. Current knowledge relies on surveys reporting the exposure of children and adolescents to various extreme stressors
- II. Long-term increase in rate of violence in the United States:
 - A. Risk for traumatic stress has been rapidly rising
 - B. Children 2.5 X more likely to be victims of violent crimes than adults
 - C. Current societal manifestations of violence are reflected in the experience of children and youth (Johnson, 1998; Perry, 1997)
 - D. Osofsky (1993) suggested that 90% of elementary school children have witnessed a violent event
- III. Violence and trauma exposure:
 - A. Center for Disease Control (CDC) reports 20% of high-school students had carried a knife or gun in month preceding their survey
 - B. Urban area survey reported 25% of adolescents had witnessed a murder (Shakoor, 1991)
 - C. November, 1998 NASP Communique:
 - 1. one of every 1,500 2,000 students die or is killed each year (incidence highest for high school)
 - 2. CDC (1994) listed causes of death for those under age 20: 4,000 motor vehicle deaths, 4,000 homicides, 3,800 suicides
 - 3. CDC stats indicate 50 homicides happened on school grounds or on the way to school in 1995
 - E. Sexual abuse survivors present with PTSD rates ranging from 20.7% to 90% (Deblinger et al., 1989; Kiser et al., 1991)
 - 1. National study estimated incidence of sexual abuse in this country was 2.5 per 1,000 children which represents 155,900 cases (U.S. D. of H. H. S., 1988)
 - 2. Finkelhor has documented similar rates in several studies in the 1990s

Philip A. Saigh City University of New York Graduate Center

Table: Current Estimates (Saigh et al., 1996)

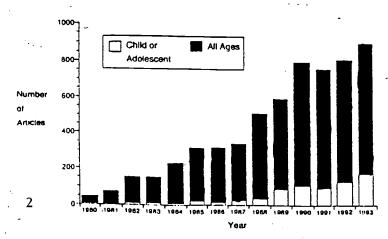


Figure 1. Number of PTSD articles by year.



The Psychobiology of Posttraumatic Stress Disorder (Bremner, Southwick, & Charney, 1991; Katz et al., 1996; Perry, 1996; Siegel, 1999; Squire & Zola-Morgan, 1991; Telner & Singhal, 1984; van der Kolk, 1996)

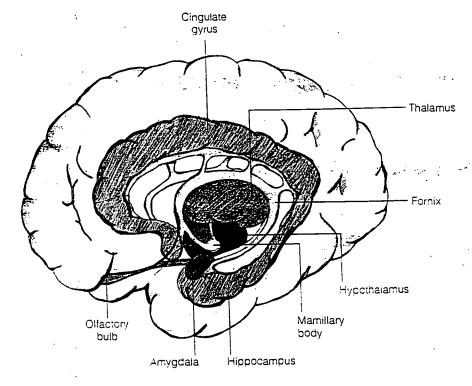
I. Non-declarative Memory:

stimuli/info --> sensory organs --> thalamus --> amygdala --> subcortical storage

- Step 1: Non-declarative memory is mediated by the thalamus, amygdala, and other subcortical organs
- Step 2: In the amygdala levels of emotional significance are attached. Next, info and emotions are stored subcortically

Note: In normal development, non-declarative memory occurs until the hippocampus allows for more cognitive forms of memory

The limbic system, a set of subcortical structures that forms a border (or limbus) around the brain stem



II. Declarative Memory:

stimuli/info --> sensory organs --> thalamus --> amygdala --> hippocampus --> cortex

- Step 1: Info is initially processed in the same form as non-declarative
- Step 2: In advanced processing symbolic and verbal meaning is attached in the context of past experiences (hippocampus)
- Step 3: Responses are generated and more advanced processing and connections are completed



III. Trauma Memory*:

stimuli/info --> sensory organs -->

thalamus --> amygdala --> *NOT(hippocampus) --> subcortical storage

Step 1: For some, the stress of trauma, depending on levels of stress responsive neurohormones* hippocampal functioning is impaired, declarative memory may break down, and there may be a return to non-declarative memory

Step 2: The result is emotionally charged memories that are not cognitively modulated

Step 3: Indelible memories are stored

*For those with PTSD, there is an ineffectiveness of the stress response system.
Response to trauma alters levels of epinephrine, norepinephrine, opiates, dopamine, serotonin, and cortisol:

- 1. Levels of norepinephrine and other catecholamines are increased which serves to chronically increase the sympathetic nervous system activity (van der Kolk, 1996)
- 2. The sympathetic nervous system activation causes preparation for fight or flight:
 - a. increases heart rate and breathing
 - b. decreases digestive activity
- 3. Levels of gluococorticoids (such as cortisol) and serotonin, which typically act to shut off stress reactions that have been initiated by the stress response, are decreased (Perry, 1996; van der Kolk, 1996)
- 4. This results in an inability to modulate the fight or flight response (Pynoos et al., 1995)
- 5. Endogenous opiod response to stimuli reminiscent of trauma increases causing pain analgesia, memory impairment, and emotional numbing (van der Kolk, 1996)
- 6. Various hormones act together to affect consolidation of traumatic memories (norepinephrine and vasopressin) and amnesias (oxytocin and endogenous opiods; van der Kolk, 1996)
- 7. May account for the learning problems frequently reported in traumatized children as they are due to actual changes in brain structures that are involved in learning such as the: temporal lobe, hippocampus, and amygdala (Squire & Zola-Morgan, 1991)
- 8. See Miller (1998) or Johnson (1998) for detailed descriptions of PTSD in children and neurochemical and neuroanatomical responses and effects

"The mind emerges from the activity of the brain, whose structure and function are directly shaped by interpersonal experience."

Daniel J. Siegel, 1999 The Developing Mind: Toward a Neurobiology of Interpersonal Experience



General Symptomatic Presentation (Johnson, 1998; Katz et al., 1996; Perry, 1996)

- I. General Symptoms: (Symptoms resemble severe chronic stress and expression of these symptoms may not necessarily reflect psychopathology)
 - A. The traumatic event (direct personal experience with actual or threatened death or serious injury; witnessing such in an event for other; learning about unexpected violent death, injury or harm of someone interpersonally close) must be reexperienced:
 - 1. Intrusive and recurrent recollections
 - 2. Dreams and dissociative states
 - 3. Repetitive trauma reminiscent play
 - B. Emotional Anesthesia
 - 1. Diminished affect or inability to feel emotion
 - 2. Loss of interest in previously significant activities or people
 - C. Excessive Autonomic Arousal
 - 1. Exaggerated startle response or hyper-alertness
 - 2. Difficulty sleeping
 - 3. Memory impairment
 - 4. Disorganized and agitated behavior
 - 5. Intense fear, helplessness, horror
 - 6. Difficulty concentrating on or completing tasks
 - D. Avoidance of reminders of the traumatic event

Symptomatic Presentation in Children and Adolescents by Developmental Period

- I. Symptoms in young children
 - A. Younger children have a smaller repertoire of coping responses, less affective differentiation, less developed cognitive skills and are affected more
 - 1. Erikson:
 - a. Birth-2 years: Trust vs. Mistrust
 - b. Preschool years: Initiative vs. Shame and Doubt
 - 2. Piaget
 - a: Birth 2 years: sensory -motor
 - b. Preschool Years: Preoperational
 - 3. Young children are not capable of sophisticated sequential memory formation and contextual understanding of events
 - a. Symptomatic expression will reflect developmental tasks (i.e. anxious attachment)
 - b. Symptomatic expression will reflect immature cognitive structures (regression and iconic/early symbolic memory formation)
 - 4. Development of death concepts:
 - a. Death is reversible
 - b. Death is a temporary restriction, departure, or sleep
 - B. Regression to a previous level of functioning (loss of acquired skills; Johnson, 1998; Terr, 1979)
 - 1. Lose bowel and bladder control
 - 2. Become irritable and cry
 - 3. Develop stranger anxiety



- 4. Sucking thumb or fingers
- 5. Development of fears and eating problems
- 6. Exhibit increased motor activity and trembling
- C. Because preschoolers do not have fully developed verbal skills, their symptoms are often expressed in nonverbal channels (Cohen, 1998; Gaensbauer et al., 1995; Johnson, 1998)
 - 1. May reenact through play (see below)
 - 2. Severe behavioral expression (internalizing vs. externalizing; Gaensbauer et al; Terr, 1988)
 - 3. Memories represented implicitly rather than explicitly (Amir, McNally, & Wiegartz, in press)
 - 4. Nightmares and disturbed sleep patterns
 - 5. A distressing dream of the event may change into generalized nightmares of monsters, rescuing others, or threats to self or others (APA, 1994).
 - 5. Clinging behavior and/or anxious attachment
- D. Posttraumatic play:

Chowchilla school bus kidnapping-- children did not report flashbacks, but they did re-experience the event through stereotyped, repetitive posttraumatic play (kidnapping games) that failed to diminish their anxiety concerning abduction.

- 1. Lenore Terr (1979) one of the first to document as a symptom of PTSD in children
- 2. Symptom unique to children with this disorder
 - a. Themes of play link to the traumatic event
 - b. Play is compulsive and repetitive in nature
 - c. Play often involves others
 - d. Fails to relieve any of the accompanying anxiety

II. Symptoms in school-age children

- A. School-age children have developed a somewhat larger repertoire of coping skills, yet lack a full mastery of operational thought and abstract conceptualization
 - 1. Piaget: Concrete Operations
 - a. Have mastered symbolic representation (labelling their world experience)
 - b. Are capable of linguistic descriptions of experience in concrete terms (can lead adults to overestimate cognitive capacity)
 - c. Are working to build operational thought as they develop
 - d. Emerging sense of sequence and order, developing ability to utilize the working memory to manipulate ideas and symbols, and a developing sense of associations and connection between concepts
 - 2. Without full ability to sequence or conceptualize, understanding of events is limited
 - a. Cannot fully grasp concepts of death, cause and effect, personal control and participation in an experience
 - b. Remain sensitive to adult response and protection
 - c. Tend to regress or experience event in a concrete manner
 - 3. Development of death concepts:
 - a. Death is irreversible
 - b. Death is capricious
 - c. External-internal physiological explanations for death
- B. Fears and anxieties have been reported to be the predominant symptoms
- C. School age children often indicate that they are aware of their physical symptoms, they



may develop psychosomatic complaints such as visual and hearing problems and headaches

- D. Problems often present in school
 - 1. Fighting with peers
 - 2. Withdrawal from friends
 - 3. School refusal
 - 4. Poor attention.....declining performance
- E. Sleep disturbances
 - 1. Difficulty falling to sleep
 - 2. Midnight awakenings
 - 3. Nightmares
 - a. Distressing dreams of the event might change in a few weeks to more generalized nightmares
 - b. Rescuing others, threats to self or others, monsters
 - 4. Bed wetting
- F. Elaborate enactment of the traumatic events
 - 1. Play is still repetitive and lacks the ability to relieve anxiety, yet is much more sophisticated than preschool play
 - 2. Play often involves specific themes and becomes script governed (Johnson, 1998)
 - 3. Play is perseverative and absent of appropriate affective expression
- G. May not experience psychogenic amnesia (inability to recall events)
- H. Omen Formation: belief in an ability to foresee untoward events or retrospective identification of harbingers of the traumatic event
- I. May present with Time Skew or mis-sequencing of events in recall
- J. Example of time skew and omen formation: children who claim they had prophetically dreamed about abduction before it occurred (Terr, 1979)
 - 1. the overwhelming anxiety associated with trauma distorts time, creating compressions or expansions

III. Symptoms in preadolescent and adolescent children

- A. Many have reached Formal Operations
 - 1. By the dawning of adolescence, children no longer use play as a primary way of working through their problems
 - 2. They have newly developing and emerging ideas or abstract conceptualizations of: identity, future, safety, and connection
 - 3. They are fully able to operationally consider time sequences, cause and effect, and manipulate ideas in their working memory
 - 4. Concepts such as death and permanent injury have full impact
 - 5. Adolescents are less reliant on the response of adults and begin to assess experience through their own perceptual systems
 - 6. Development of death concepts:
 - a. Death is irreversible
 - b. Death is universal and personal
 - c. Death is distant
 - d. Natural, physiological, and theological explanations of death
- B. Premature entrance into adulthood or foreclosure of the identity formation process (Eth & Pynoos, 1985; Johnson, 1998)
 - 1. The formation of the identity process is accelerated to meet the demands of the environment
- C. Actions can become self-destructive (Johnson, 1998)



- 1. Exhibit aggression
- 2. Suicidal ideation
- D. Develop physical complaints
- E. Withdraw
- F. Affected sleep and appetite
- G. School performance is disrupted (Barnett, 1997; Cunningham, 1991; Johnson, 1998; Pynoos et al., 1996; Terr, 1979)
- H. Sense of foreshortened future (Terr, 1979)
 - 1. diminished expectations of getting married
 - 2. diminished expectations of establishing a career
 - 3. disbelief they will experience a normal life-span

Key Variables in Symptomatic Presentation in Children and Adolescents (Burgess, 1985; Davidson, 1990; Herman, 1992; Katz, et al., 1996; Osofsky et al., 1995: Pelcovitz, 1993; Terr, 1979; van der Kolk, 1985)

- I. Overall, children and adolescents are particularly vulnerable to the impact of trauma (Perry, 1997; Pynoos and Nader, 1993):
 - A. Research has found PTSD is 3X more likely in victims under age 11 years than those over the age 11 years (Davidson, 1990)
 - B. Preschoolers are particularly vulnerable to the effects of trauma with more long-term effects if trauma occurred before age 4 years (Pelcovitz, 1993)
 - C. Studies of those fighting in Vietnam (van der Kolk, 1985):
 - 1. If fighting during adolescence, increased risk for PTSD,
 - 2. Less risk if fighting as an adult.
 - D. Rape (Burgess, 1985):
 - 1. If raped during adolescence, more symptomatology
 - 2. Adults, less symptomatology
- II. General implications for children (developmental role factor)
 - A. Children may not be upset by events that cannot be immediately perceived as harmful.
 - B. Perry (1996) suggested that one of the most important factors is the availability of a healthy and responsive caregiver
 - 1. In the face of trauma children seek protection and support
 - 2. the best outcomes follow quick, stable, calm responsiveness to the child.
 - B. Children may not be bothered directly by threats that are remote or abstract, but may be influenced by the anxiety their parents experience
 - C. Children are most adversely affected by circumstances separating them from their primary care-giver
 - 1. For children, coping is dependent, in large part, on the ability to demand compensatory care from their care-givers
 - 2. Even a brief separation may have a negative affect
 - 3. During a separation a stressful event is amplified, more frightening and more stressful
 - D. Children are more afraid of immediate and concrete events.
 - E. Infants are more traumatized by separation from their primary caregiver, while adolescents will be more affected by a brandished weapon (Perry, 1996)
- III. Gender Specific Factors:
 - A. Though adult women appear more affected than men, it is reversed for children. Boys appear to be more adversely affected by hospitalization, divorce and parental discord



B. With disasters results are mixed

- IV. Look for "foot prints" (Hindman, Jan)
 - A. Traumatic events may occur in secret
 - B. No witnesses, no self-advocacy, no record
 - C. Only emotional and behavioral foot prints which suggest the previous path of the trauma
 - D. The implicit versus explicit coding of memories
- V. Type I Versus Type II PTSD (Terr, 1991)

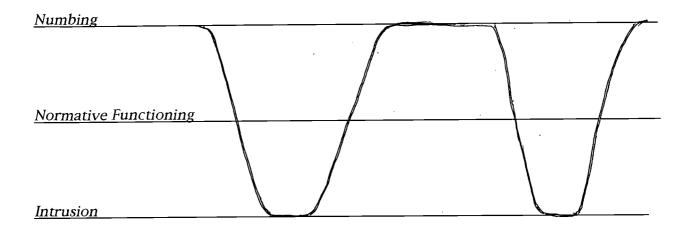
Terr (1991) has proposed that PTSD takes on two forms: Type I and Type II

- A. Type I results from a single traumatic event and is characterized by classic reexperiencing phenomena (i.e. car accident)
- B. Type II results from either a series of traumatic events or from exposure to a prolonged stressor and is characterized by dissociation, denial and numbing (i.e. incest)
 - 1. Adaptation to Type II stressor may give rise to more severe psychopathology (including: PTSD, Dissociative Disorders, Conduct Disorder, and Borderline Personality Disorders)
 - 2. Chronic abuse appears to result in greater incidence of PTSD in the abuse population (41%) when compared to intermittent or isolated experiences (26%; McClellan et al., 1995)
- VI. Level of Trauma and Reaction (Osofsky, et al., 1995)
 - A. Mild Reactions
 - 1. General apprehension
 - 2. Anxiety
 - **B.** Moderate Reactions
 - 1. More intrusive phenomena
 - 2. A wish to avoid feelings
 - C. Severe reactions
 - 1. Avoidance
 - 2. Re-experiencing traumatic events
 - 3. Re-enactment behavior
 - 4. Traumatic images in play and drawing
 - 5. Psychological numbing
 - 6. Memory disturbances
 - 7. Interference with learning
 - 8. Arousal (physical and psychological)
 - 9. Regression in language and toileting
 - 10. Difficulties with emotional regulation
 - 11. Generalized fears of being alone
 - D. Most severe
 - 1. Estrangement and interference in the child's ability to learn become prominent
 - 2. Dissociation
 - 3. Auto-hypnotic phenomena
 - 4. Massive denial
 - 5. Aggression turned against the self



VII. The Dialectic of Trauma (Herman, 1992)

- A. The contradictory responses of intrusion and numbing constriction establish an oscillating rhythm.
- B. Neither the intrusive or numbing symptoms allow for integration of the traumatic event
- C. The oscillation may be an attempt to find a balance between the two
- D. Since neither extreme is tolerable, the oscillation is self-perpetuating



The Courage to Heal

Trauma Survivors

"Don't run away from it.
Don't bury it.

Don't try to produce a different reality getting all strung out on something, or eating your way through your feelings.

Don't slash your wrists.

Just deal with it,

Because it's going to keep coming back

if you continue living anyway.

It's painful,

but you just have to keep going..."

"There's more than anger, more than sadness, more than terror...

There's hope."



Treatment in Stages:

Conceptual Structure Based on Herman (1992)

At the core of PTSD is vulnerability and disconnection.

*

Recovery depends upon empowerment and the creation of new connections.

While research has documented the brain's ability to internalize and process trauma, it has also accepted that therapeutic experiences can alter the mind as well (Perry, 1996; Siegel, 1996). As Siegel suggests in The Developing Mind, "Human connections create neural connections."

Stage 1: Safety

I. The healing relationship

II. Naming the Problem

III. Restoring Control

IV. Considering Medication

Stage 2: Remembrance

I. Reconstructing the Story

II. Re-experiencing and Integrating the Trauma

A. Cognitive Behavioral Therapy

B. Less Structured Individual Therapy

C. Co-constructing a Narrative

D. Play Therapy

E. Other Therapeutic Techniques

Stage 3: Mourning

I. Revenge

II. Forgiveness

III. Compensation

IV. Grief

Stage 4: Reconnection

I. Taking Power

II. Boundaries

III. Reconnection with Self

Stage 1: Safety:

I. The Healing Relationship (Herman, 1992)

- A. The core experiences of psychological trauma are vulnerability and disconnection from others
- B. Recovery is based on the empowerment of the survivor and the creation of new connections
- C. This must occur in the context of a relationship and a focus on the empowerment of the survivor
 - 1. Allow the patient to make choices in the direction of the therapy
 - 2. Provide a tool or routine through which the patient can demonstrate his or her fluctuating safety and vulnerability (an emotional gage; i.e. sea gull example).
 - 3. Set-up a way in which the patient can indicate limits
 - 4. "Casting:" have the patient and family plan for a decrease in demands in day to day life or "a tolerance for a state of being ill."
 - 5. Have a back-up plan for inpatient stay or a way to extremely reduce demands if the patient regresses.
 - 6. An option list for the child to carry
 - a, the child lists people he or she can turn to with their phone numbers
 - b. the patient practices calling "safe" people in time of need



- II. Naming The Problem (Herman, 1992)
 - A. Conduct a thorough and informed diagnostic evaluation
 - B. Provide the patient (or parents) with reading material and definitive information
 - 1. Prepare them for what to expect with PTSD (bibliotherapy; Johnson, 1998)
 - 2. Prepare them for symptoms so that they are less frightening when they occur
 - 3. Provide coping strategies and warn of common mistakes
 - a. Write about or discuss the trauma with others in the face of a desire to withdraw (Pennebaker)
 - b. Avoid alcohol or other drugs for control of symptoms
- III. Restoring Control (Herman, 1992)
 - A. Trauma robs the victim of a sense of control and safety
 - 1. Unsafe in their bodies
 - 2. Emotions and thinking feel out of control
 - 3. Feel unsafe in relation to others
 - B. Physical strategies:
 - 1. Medication to reduce reactivity and hyper-arousal
 - 2. Use of behavioral techniques such as relaxation or hard exercise to manage stress
 - 3. March, Amaya-Jackson, Murray, and Schulte (1998) suggest anxiety management training early in the treatment structure:
 - a. Progressive muscle relation training
 - b. Diaphramic breathing
 - C. Cognitive-behavioral strategies:
 - 1. Naming symptoms
 - 2. Daily logs to chart symptoms and adaptive responses
 - 3. Manageable homework tasks
 - 4. Development of concrete safety plans
 - D. Development of interpersonal strategies
 - 1. The therapeutic relationship
 - 2. Discussion/plans of attempts to connect with others
 - E. Mobilizing the survivor's natural support system
 - 1. Family
 - 2. Friends
 - 3. Self-help groups
 - 4. Mental health and community supports
 - F. Focus on control of the body and move to control of the environment
 - 1. attention to basic health needs
 - 2. regulation of sleep, eating, and exercise
 - 3. management of symptoms
 - 4. control of self-destructive behaviors
 - 5. establishment of a safe living situation
- IV. Psychiatric/Psychopharmacological intervention- Citations for the interested reader: For Lit. Reviews see: Vargas & Davidson (1993) and Sutherland et al., (1994)
 - A. Antidepressants: in adults, antidepressants have been more effective than other psychotropic drugs and have increased recovery rates for both PTSD and panic disorders (Davidson et al., 1990)
 - B. Phenelzine, a monoamine oxidase inhibitor (MAOI) antidepressant
 - 1. In 19 male Vietnam veterans phenelzine more effectively reduced symptoms than either tricyclic antidepressant imipramine or a placebo (Kosten, Frank, Dan, McDougle, & Giller, 1991)



- a. Both drugs were more effective at the 5th week of the trial than the placebo
- b. Phenelzine was the more helpful for intrusive thoughts and avoidance
- c. Features such as nightmares, guilt, and startle reactions were less improved than the others
- C. Propranolol was found in an open trail of 11 children (Mean age = 8.5 years) to reduce aggressivity and anxiety associated with acute PTSD, an effect that reverses on drug discontinuation (Popper, 1993)
- D. Clonidine
 - 1. Has been reported to reduce startle reactions and avoidant behaviors in children with PTSD (Popper, 1993)
 - 2. Used to treat sleep disorders in children (Wilens, 1994)
 - 3. Breakthrough symptoms may occur after 3 weeks (6 hour life)
- E. Guanfacine for PTSD Nightmares (Horrigan, 1996) A 7 year old female:
 - 1. Clonidine not effective through the night, Guanfacine has a longer half life
 - 2. Cessation of nightmares with .5 mg at bedtime

Stage 2: Remembrance:

I. Reconstructing the Story (Herman, 1992).

- A. A review of the patient's life before the trauma and the circumstances that led up to the event
 - 1. Reclaim history to re-create the flow of memory construction
 - 2. Include important relationships, ideals and dreams, struggles and goals
- B. Reconstruct the event as a recitation of fact
 - 1. It may be disorganized and fragmented initially
 - 2. Include the event, the survivor's response, and response of individuals in life
 - 3. Ask about sound, smell, vision, time or day, etc...
- C. Recitation without emotions does not provide a therapeutic effect
- D. At each point ask the patient how they felt then
- E. Ask how they feel while recalling the event and make reference to then and now
- F. The goals of recounting the trauma story is not to get rid of the trauma, but to integrate it (a step will be important for each of the following techniques)

"Face a fear, and the death of that fear is certain." The Courage to Heal

- Remember what we are trying to do here:
 - 1. The memories have been stored subcortically with the uncontextualized emotional significance attached by the amygdala
 - 2. We need to recover the emotionally, iconically stored memories
 - 3. The memories must be integrated with cortical, verbal, declarative thought within the context of the child's memories and the complexity of the entirety of life events
 - 4. The child or adolescent must feel safe, strong, and supported.
 - 5. Coconstructing the narrative within the context of support, caring, and a safe relationship creates a new neurological web or cognitive matrix of storage
- 6. The memory is experienced neurologically and psychologically in a normalized manner For this to occur, the child needs three things:
 - 1. The emotion
 - 2. The memory
 - 3. A safe relationship



•The following theories will attempt to accomplish and explain this reintegration:

II. Exposure-Based Paradigms (cognitive/behavioral models): Why and How Does It Work?

A. Behavior Theory:

1. Kaene et al., (1985) proposed that the duration of therapeutic stimulations that occur during exposure based treatments expedite the formation of traumatic memories in the absence of the original unconditioned stimulus and indices of long-term extinction.

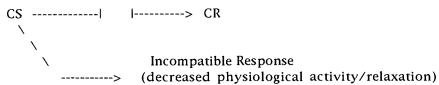
2. Prolonged therapist-directed stimulations are said to induce elevated levels of emotional and psychophysiological arousal which will serve to facilitate comprehensive exposures to overall conditioned response complex.

3. Several studies comparing insight oriented psychotherapy and flooding techniques in Vietnam war veterans have supported the use of exposure based techniques (Boudewyn & Hyer, 1990; Cooper & Clum, 1989)

B. Emotional/Cognitive Processing Theory

(Based on Counterconditioning/Reciprocal Inhibition and Cognitive Theory):

- 1. PTSD reflects a pathological fear structure which contains:
 - a. Specific, trauma-related mistaken associations and evaluations
 - b. Pathological elements:
 - The victim's perceptions of the world as entirely alienated and dangerous
 - The victim's perception of self as incompetent and helpless
- 2. Two conditions are required for fear reduction:
 - a. The fear structure must be activated
 - b. New information must be provided that is incompatible with the pathological elements in the structure



- 3. Process:
 - a. Victims repeatedly relive the traumatic memories (imaginal exposure)
 - b. Thus, the trauma structure and its emotional component are activated
 - c. By the end of the session, emotional response to the traumatic memories



- is decreased for most patients thus signify habituation in a session
- d. Repeated reliving produced a long-term decrease in emotional responding (habituation between sessions)
- 4. Three indicators of successful emotional processing in the context of therapy:
 - a. Fear activation
 - b. Habituation (fear reduction) within the session
 - c. Habituation across sessions

5. Theory

- a. The emotional habituation to trauma memories facilitates the organization of these memories,
- b. Thus enabling the victim to view the trauma as painful but with low probability that the trauma event would recur
- c. Rather than an event representative of the world as an entirely dangerous place

C. When is Flooding Contraindicated?

- 1. In cases of comorbidity: psychosis, limited mental ability, depression, conduct disorder, ADHD, or substance abuse
- 2. Litz, Blake, Gerardi, and Kaene (1990) listed the following reasons:
 - a. A record of non-compliance
 - b. Difficulty maintaining or establishing mental images
 - c. Reduced reexperiencing symptoms
- 3. Sufficient research has not been conducted with individuals reporting Type II trauma.
 - a. Victims of child sexual and physical abuse should combine therapeutic exposure and cognitive interventions
 - b. Patient tolerance of imagery should be carefully monitored

D. Review of Research Trials: Flooding

- 1. Saigh (1987) [*Saigh published 3 replications of this study]
 - a. 14 year old Lebanese boy who had been abducted and tortured
 - b. 6 months after the incident the boy met the criteria for PTSD
 - c. Symptoms:
 - Trauma related recollections and nightmares
 - Reduced ability to concentrate and recall
 - Anger
 - Trauma-related avoidance behaviors
 - Depression
 - d. Treatment Package
 - Clinical interviews which identified 4 anxiety provoking scenes (e.g., being stopped, forced into a car at gun point, blindfolded, and driven away)
 - Imaginal Flooding (7 sessions)
 - 1. 10 minutes of therapist directed deep muscle relaxation exercises
 - 2. 60 minutes of therapeutic stimulation were subsequently presented wherein the youth was instructed to imagine the particular details of the anxiety-evoking scenes



3. Subjective distress was assessed

e. Outcome

- Significant decrease in subjective distress
- 4 month follow up found the boy to be experiencing almost no distress
- 4 month follow-up reflected clinically significant treatment gains in: self-reported anxiety, depression, and misconduct

2. Yule (1997)

- a. 16 year old British male who developed PTSD following a nautical accident (cruise ship sinking)
- b. Symptoms:
 - Elevated anxiety
 - Depression
 - High scores on an impact of event scale
- c. Therapeutic package
 - Asking the patient to accurately describe what he heard, felt, observed, smelled, and thought during the accident
 - The patient listened to an audio recording of his verbal description of the sinking ship between therapeutic sessions
- d. Outcomes
 - Improvement in all symptom areas
 - Ability to pleasure boat on the English Channel

III. PTSD Cognitive Processes and Integrative Techniques:

PTSD Cognitive Processes

Stimulus----> Non-integrated Trauma Memory-----> PTSD Interpretation-----> Response (Revise Meaning/Interpretation) (Fear/Avoid)

Smell of Grass---->Visual Rape Trauma----->"I'm in danger"----->emotional/physio. Response "I can't handle this"

Post-treatment Cognitive Processes

Stimulus----> Integrated Memory-----> Coping Responses-----> Normative Response

Smell of Grass---> Verbal/Integrated -----> Self-statements-----> Completion of Memory of Rape Relaxation Techniques Activity

- A. O'Donoghue & Elliott (1992) The Sexually Abused Child
 Treatment outcome literature seem to support best efficacy of behavioral and
 cognitive/behavioral interventions
 - 1. Skills training (discrepancies across studies)
 - a. Coping skills
 - b. Problem solving skills
 - c. Communication skills



- 2. Symptom management
- 3. Prevention component: protecting from re-victimization
- B. Deblinger et al., 1990
 - 1. Cognitive-behavioral therapy is the therapy of choice for PTSD
 - 2. Treatment includes:
 - a. Treatment for depression
 - b. Anxiety reduction
 - c. Relaxation therapy to reduce reexperiencing of the traumatic event
- C. The victim realizes the he/she can confront the traumatic memories and tolerate the resulting emotional activation
 - 1. This realization helps the individual modify perception of self as an inadequate person
 - 2. Questioning irrational beliefs about self
- G. Acquisition of techniques for coping with anxiety such as relaxation and cognitive restructuring
 - 1. Relaxation, thought stopping
 - 2. The experience of being able to successfully control anxiety produces evidence that contradicts the victims perception of being inadequate, thus enhancing perception of self-competence

IV. Other Exposure-Based Techniques

- A. Drawing/Art Therapy (Azarian & Skriptchenko-Gregorian, 1998; Gaensbauer et al., 1995; Peacock, 1991; Yule, 1998)
 - 1. Art therapies may have a unique role in PTSD treatment in that memories are many times stored iconically, rather than verbally or declaratively
 - a. For some bridging the chasm between their verbally accessible self and nonverbal traumatic scars is a monumental, sometimes overwhelming task
 - b. Art and drawing therapies may provide that iconic bridge to link trauma memories to narrative.
 - c. Based on a linguistic iconic theory, research has documented the effectiveness of picture and sign symbols in the development of infants cognitive skills as the process of communication and symbolic representation is stimulated (Karlan, 1990)
 - d. The same may hold true for the traumatized
 - e. The trauma memories are accessed nonverbally proving a metaphoric bridge to language and discourse
 - f. Trauma related research is needed
 - 2. Young children and severely traumatized individuals may not be able to: imagine traumatic material, follow detailed relaxation procedures, or tolerate extended in vitro presentations
 - 3. Have the child prepare drawings of their stressful experience
 - 4. Have the patient verbally describe the content of their drawings as an adjunct to a more traditional form of flooding
 - 5. The child can express feeling through art and treatment of art (create an aggressive expression or rip-up their recreation)



- B. Use of trauma-reminiscent prompts (positive outcome)
 - 1. May facilitate ability to imagine stressful material in therapeutic settings
 - 2. Saigh (1987) 12 year old Lebanese boy whose home had been destroyed during a shelling incident
 - a. Was not able to imagine incident
 - b. Sounds progressively closer to shell and rocket explosions were audiotaped and amplified by two 50 watt speakers.
 - c. Boy reported sound track as vivid and was given verbal instructions to imagine the traumatic material

V. Psychoanalytically-Informed Play Therapy

- A. Winnicott (1971) described play:
 - 1. An interface between a child's intrapsychic reality and the outer world
 - 2. Metaphorically, the child is trying to control or manipulate objects (the world)
- B. Terr (1983): This mode of working with traumatized children in therapy combines
 - 1. Play therapy
 - 2. Verbalization as a way to help deal with psychic trauma
- C. Osofsky (1993): Without this forum to express feelings symbolically, the children would probably
 - 1. Continue to experience faulty ego functioning and
 - 2. Be unusually prone to drive and impulse expression
- •Osofsky (1995). The role of the therapist is to help the children co-construct a new and more coherent narrative experience different from the original one based on incoherent traumatic fragments. The more positive new narrative experience would enhance their resilience for later developmental tasks
- •Osofsky (1995)
 - A. very young children (2 years of age)
 - B. Treatment of 10 months
 - C. Children were provided with toys likely to evoke memories of the witnessed violent end to their mother's life
 - 1. After several sessions the children engaged in repetitive play surrounding shooting alternating roles of victim, aggressor, and protector
 - 2. At times the play was marked by disorganized anxious states, angry affects, and aggressive behaviors
 - D. Book reading (2 months)
 - 1. Therapist introduced a book about overcoming a monster
 - a. The monster appears progressively
 - b. The monster disappears with each progressive page as the children say "go away scary monster and never come back."
 - c. The process is intended to facilitate feelings of empowerment
 - E. Children directed the therapist to draw pictures (4 months)
 - F. Return to play and an increase in organized, thematic imaginative play (8 months)
 - G. Termination at 10 months

Stage 3: Mourning Traumatic Loss:

- I. This stage is often avoided through magical resolution
 - A. Revenge
 - 1. Image of the traumatic memory in reverse
 - 2. May have same wordless quality of trauma memory



- 3. May rise out of feelings of helplessness
- 4. The patient may feel this is the only way to restore power
- 5. Patient must come to terms with the impossibility of getting even
 - a. Venting in a safe relationship may be therapeutic
 - b. Joining community or following through legal proceedings are acceptable means
- B. Forgiveness
 - 1. This may occur in replacement of an unacceptable revenge fantasy
 - 2. This also represents an attempt at empowerment
- C. Compensation
 - 1. A feeling of entitlement for compensation
 - 2. Some can become trapped in a long fruitless attempt at collecting compensation
 - 3. May be fueled by a desire for victory over the perpetrator
- II. The patient will then move into the grief process
 - A. Increased risk of self-abuse and suicide
 - B. Patient will likely move through stages of anger, loss and resolution

"Sometimes I think I'm going to die from the sadness. Not that anyone ever died from crying for two hours, but it sure feels like it."

The Courage to Heal

Stage 4: Reconnection:

- I. Learning to take power in real life situations
 - A. Self-defense training
 - B. Vacations which safely include challenges such as wilderness trips and hiking
 - C. Practice setting limits in daily life
 - 1. friends
 - 2. family members
- II. Boundaries: Our experience creates the parameters of our reality
 - A. Physical boundaries
 - B. Relationship boundaries
 - C. Possible outcomes/distorted beliefs (boundaries of expected events)
 - D. Appropriate disclosure, planning in advance the information to reveal to others
- III. Reconnecting with self
 - A. Self-define while letting go of the defining aspects of the trauma
 - B. Finding positive aspects of self formed by the trauma

Other Therapeutic Tools:

- I. Memory Book (Hindman)
 - A. This is an album or journal in which the child keeps written notes, poetry, drawings, scraps of paper, memory eliciting items, pictures, etc.
 - B. The book is only opened during pre-planned times, initially with the support of the therapist and later individually
 - C. The child can remember the trauma in the context of the moments the book is opened
 - D. The closed book puts boundaries on the memories and a sense of temporary closure for



the child (empowerment over intrusive thoughts)

II. Transfer Object

- A. The child utilizes a stuffed animal or blanket to transfer feelings of safety from therapy to home, or from parent to bed time
- B. The transfer object is discussed in regards to its use "To help you feel safe"
- C. The transfer object can be used in therapy as the hero in play

III. The Story Telling Game (Childswork, Childsplay)

- A. A technique for therapeutic play
- B. The child and the therapist take turns creating scenarios with dolls or paper dolls
- C. The therapist is able to use his or her turn to tell corrective stories

IV. Pennebaker Opening Up

- A. Writing
- B. Journal writing the memories with specific content and feelings has been clinically proven to improve sense of well-being and physical health
- C. Journal writings can be shared in therapy

V. The Knee Reflex Technique (sexual abuse issues)

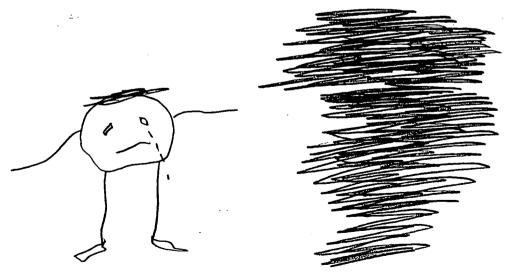
- A. Tell the patient to cross legs as to test reflexes in the knee
- B. Stimulate a knee reflex response using the appropriate tool
- C. Ask the patient to now try to not move their leg using will power
- D. Use this as an example of the bodies responsiveness as with sexual responses
- E. Work into a discussion regarding the conflicting feelings (sexuality/abuse)

VI. Teach Self-Soothing

- A. Relaxation
- B. A self-soothing plan
 - 1. Redirection when traumatic thoughts intrude
 - 2. Taking a bath
 - 3. Writing
 - 4. Cuddling with transfer object
 - 5. A cup of tea or hot cocoa

VII. Letters to the perpetrator

- A. May facilitate approach to feeling content
- B. Assists in appropriately directing anger
- C. Helps in defining the trauma
- D. Adds additional closure and empowerment





School Reintegration Plan:

I. The School Reintegration Plan

- A. Formation and implementation of a school reintegration safety plan requires informed and committed school personnel, parents, and student(s)
- B. It will be the psychologist's charge to inform other school personnel, educate parents, and inform the student(s)
- C. Such education is the solid base upon which a successful reintegration plan is constructed (such education will mobilize support systems and enhance positive outcomes)
- D. Research suggests that resiliency requires an effective external support system:
 - 1. Clark & Miller (1998)
 - 2. Masten, Best, & Garmzy (1990)

II. Steps in the School Reintegration Plan

- A. Establishment of relationship
- B. PTSD recovery education
- C. Individualized plan development
- D. Facilitated integration
- E. Independent regulation

III. Step One: Establishing the Relationship

- A. As in treatment, the therapeutic and supportive relationship is key to successful school reintegration
- B. If a pretrauma relationship does not exist, the school psychologist may want to collaborate with the psychiatrist and psychologist working with the student
 - 1. Mutual releases of information
 - 2. Joint sessions
 - 3. Ongoing consultation
- C. Pre-school entrance sessions will help to facilitate successful transition
- D. Your relationship will lay the ground work and stable base upon which the student can anchor their sense of safety as the attempt to return to school
- E. The ultimate goal of this step is to become a safe person and your office- a safe place.

IV. Step Two: PTSD Recovery Education

- A. Review with the student and family the key points in PTSD recovery
- B. Remind the student and family that reentering school can be a significant stressor
 - 1. Stressors are sometimes followed by some regressions in progress
 - 2. Possible symptom recurrence (Gaensbauer et al., 1995).
- C. Recovery is a lengthy process which includes epicycles (Johnson, 1998).
 - 1. There are times when the child or adolescent appears as though they are regressing
 - 2. This should be considered a normal part of healing (Johnson, 1998).
- D. Developmentally appropriate surges in hormones or positive social shifts can create stress for the recovering student.
- E. As a team, you will prepare for any regressions or relapses
 - 1. Discuss relapses as normal cycles in recovery, the discontinuous nature of healing and growth
 - 2. Review any significant trauma anniversaries, triggers, or sensitive periods
- F. With appropriate expectations experiences of regression and discontinuous growth will be perceived as normative rather than an indicator of poor prognosis



- G. Remind the family and the student that it is important to add excitement, challenge and responsibility gradually
 - 1. Decisions regarding returning to a full sports schedule, to try out for the school play, or add an after school activity should be weighed carefully within the context of the progress of healing

V. Step Three: Individualized Plan Development

- A. Establish a safety plan for symptom expression
 - 1. Should be hierarchical
 - a. Begin with basic breathing (independent)
 - b. Cognitive techniques (independent)
 - c. Attachment or safety objects (independent)
 - -coin
 - -therapist's card
 - -phone number list
 - -a list of self-statements
 - -scrap of material
 - -a photograph
 - d. A cue or method for contacting the school psychologist (connection)
 - e. Back up or support person (connection)
 - f. Contact of outside therapists or parents (connection)
- B. Write down your safety plan
 - 1. Documentation or formalization feels safe and grounded
 - 2. Will provide a visual aid if student is significantly emotional
- C. Schedule prevention sessions (Rosenbloom & Williams, 1999)
 - 1. For anniversaries and high stress circumstances
 - 2. Schedule these well ahead of time
 - 3. During prevention sessions
 - a. Assess current status
 - b. Level of risk of stress during anniversary
 - c. Assess level of support needed
 - d. Plan pre-preemptive rituals
 - -visit grave
 - -review memory book
 - -write perpetrator anniversary letter
 - -light a candle at church
 - 4. By embracing the annivrary the student is empowered rather than disarmed

VI. Step Four: Facilitated Integration

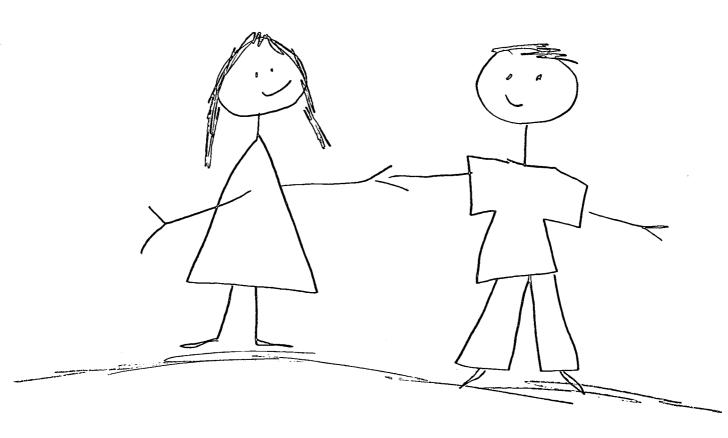
- A. The goal of this stage is to move away from heavy supports, gradual, and or partial attendance to full attendance and supported reintegration
- B. Collaborative clinical decisions should be made regarding the length of the initial school visit and the process of extending the school visit to a full day
 - 1. Factors to consider:
 - a. Inpatient status
 - b. Length of time absent from school
 - c. Any available data regarding premorbid functioning
 - d. Level of support among peers and family
 - e. Student wishes
 - f. Self-regulatory skills
 - g. Current mental health status



- 2. Incorporate daily, every other day, and eventually weekly support sessions into the plan
- C. For some, boundaries may be an issue
 - 1. It may be necessary to include a goal of providing safety within the context of appropriate boundaries
 - 2. This may include:
 - a. Setting firm limits about office visits
 - b. Describe and model appropriate behaviors
 - c. Reinforce that learning appropriate boundaries is part of healing

VI. Step Five: Independent Integration

- A. Throughout the process, the focus is on movement toward independence and self-monitoring
- B. This is emphasized whenever the student makes gains:
 - 1. Through verbal expressions
 - 2. Celebration of goal accomplishments
- C. As the student makes gains prune supports
- D. Keep appointments set for sensitive periods and anniversaries, while decreasing regularly scheduled appointments
- E. Use opportunities such as child study team and parent contact to monitor progress





Autobiography in Five Short Chapters

By Portia Nelson

7

I walk down the street.
There is a deep hole in the sidewalk.
I fall in.
I am lost... I am helpless.
It isn't my fault.
It takes forever to find a way out.

77

I walk down the same street.
There is a deep hole in the sidewalk.
I pretend I don't see it.
I fall in again.
I can't believe I am in the same place,
But it isn't my fault.
It still takes a long time to get out.

Ш

I walk down the same street.
There is a deep hole in the sidewalk.
I see it is there.
I still fall in... it's a habit.
My eyes are open.
I know where I am.
It is my fault.
I get out immediately.

IV

I walk down the same street.

There is a deep hole in the sidewalk.

I walk around it.

V

I walk down another street.



Recommended Readings

1. The effects of trauma on young children: A case of 2-year old twins Joy D. Osofsky, Geraldine Cohen, and Martin Drell
International Journal of Psycho-Analysis (1995) vol. 76
* a detailed description of play therapy for PTSD

2. Review of the Psychobiology and Pharmacotherapy of Posttraumatic Stress Disorder Laurence Katz, William Fleisher, Kevin Kernisted, and Paul Milanese American Journal of Psychiatry (1996) vol. 41

* a wonderful description of the psychobiology of PTSD

3. Evaluation of a Brief Cognitive-Behavioral Program for the Prevention of Chronic PTSD in Recent Assault Victims

Edna Foa, Diana Hearst-Ideka, and Kevin Perry Journal of Consulting and Clinical Psychology (1995) vol. 63

* description and narrative of a 4 session cognitive behavior program

4. Unchained Memories: True Stories of Traumatic Memories Lost and Found

Lenore Terr, MD

* Detailed accounts of trauma and recovery

5. <u>Trauma and Recovery: The Aftermath of Violence-- From Domestic Abuse to Political Terror</u>
Judith Lewis Herman, MD

*Describes the process of trauma and stages of recovery

6. The Courage to Heal: A Guide for Women Survivors of Child Sexual Abuse

Ellen Bass and Laura Davis

*Details the process of healing on a very personal and readable level (adult reading)

7. Traumatic Stress: The Effects of Overwhelming Experience on Mind, Body, and Society

Bessel A. van der Kolk, Alexander C. McFarlane, and Lars Weisaeth

* Provides and excellent overview of recent research on PTSD and children

8. The Developing Mind: Toward a Neurobiology of Human Experience

Daniel J Siegel

- * Dr. Siegel blends theory and neurobiological research in a fascinating description of the developing human mind. A great source for those interested in furthering their understating of the neurobiology of the mind.
- 9. <u>Trauma in the Lives of Children: Crisis and Stress Management Techniques for Counselors, Teachers, and Other Professionals</u>

Kendall Johnson

*Dr. Johnson makes the research intellectually accessible and provides a practical, school friendly model of stress management and trauma work with children and adolescents.



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