

# The Effects of Trauma on Learning

Presented by  
Kathi Ritchie  
kritchie@kahoks.org

---

---

---

---

---

---

---

---

## Trauma

- What is Trauma?
  - “A traumatic event is a sudden and unexpected occurrence that causes intense fear. A traumatic experience may have a profound effect on the physical and mental health and the development of the student.” ([www.nctsnet.org](http://www.nctsnet.org))

---

---

---

---

---

---

---

---



is....

The Subjective Way An Experience Is Experienced

---

---

---

---

---

---

---

---

## The Subjective Experience

- Fear
- Terror
- Worry
- Hurt
- Anger
- Revenge
- Accountability
- Feeling Unsafe and Powerless
- Victim Thinking
- ....Our Brain-Arm/Fist....




---

---

---

---

---

---

---

---

## TRAUMA

The Substance Abuse and Mental Health Services Agency (SAMHSA, 2011) reports:

- 26% of today's children will witness or experience a trauma before age four.
- 39% of these children will meet criteria for attention deficit hyperactive disorder (ADHD).
- 38% will meet criteria for mood disorders and 26% will meet the criteria for oppositional defiant disorder (ODD).
- There are over 20 million Goggle references on traumas impact on learning and behavior.

---

---

---

---

---

---

---

---

## Examples of Traumatic Events

- Unexpected death
- Abuse and neglect
- Illness
- Loss of a family member (divorce or physical separation, incarceration of parent)
- Family member being deployed
- The list is endless.




---

---

---

---

---

---

---

---

Children's Mandate  
The primary dictate of  
trauma informed care is:

“Do No Harm”

---

---

---

---

---

---

---

---

PET Scans show brain in trauma creates changes  
in Broca area of brain resulting in –

- difficulty identifying and verbalizing our experiences. (Stein and Kendell, 2004; VanDalen, 2001)
- Short term memory suffers. (Alessi and Ballard, 2001; Starknum, Berent & Schterngart, 1992)
- Learning problems develop. (Perry & Szalavitz, 2006; Weinstein, 2000)

---

---

---

---

---

---

---

---

Trauma has been shown to  
significantly compromise cognitive  
development (Levine, 2007)

Focusing, attending, and recalling  
becomes difficult (Steele & Kuban,  
2013)

---

---

---

---

---

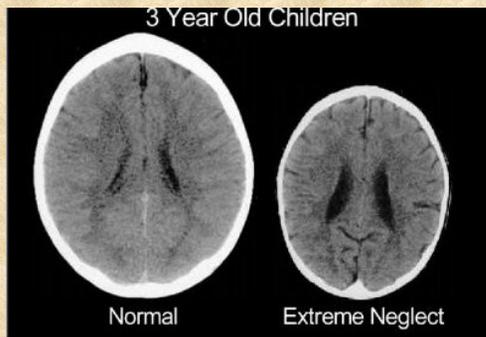
---

---

---

### Trauma vs. Healthy Brain

3 Year Old Children



---

---

---

---

---

---

---

---

### Brain Based Framework

“During a stressful event, the sympathetic nervous system activates the fight or flight response. The stress hormone Cortisol is released. Normally, when the stressor goes away, the parasympathetic nervous system respond and returns the body to normal. However, in a traumatic event, which is caused by unusually large amounts of stress, excess cortisol is released in the body. That large amount of cortisol has a negative effects on the brain, damaging the CA3 neurons in the hippocampus. (Nixon, Nishith and Resick, 2004)

---

---

---

---

---

---

---

---

“The damage to the hippocampus impairs the patient's' ability to form new memories, thus affecting her ability to learn. Verbal learning can be affected in which has difficulty retaining information gathered from verbal sources. Another factor that affects learning is attention. Trauma can affect sustained and focused attention. The combination of the emotional problems and the trauma and the physiological damage can impair the child's performance in school”. (Elizabeth Stannard Gromisch-edited by S. Forsyth-updated 04.40.15. Effects of Emotional Trauma on the Brain and Learning.)

---

---

---

---

---

---

---

---

“In contrast to adults, trauma in children often shows up in irritability, misbehavior in school, difficulties in concentration, hyperactivity and poor self- control. As a result her body is stuck in survival mode and she is directing a large part of her attention and energy toward the danger that no longer exists. The misuse of the energy can lead to problems with learning and concentrating. She will have a hard time learning math skills or memorizing sight words when she is in survival mode.” (Maddox, Sam, Ph.D., Trauma in Children and Related Learning Problems article #2)

---

---

---

---

---

---

---

---

“There are three parts of the brain, the brainstem, midbrain and the cortex. The brainstem deals with essential or survival functions, the mid brain deals with feelings and emotions. The cortex controls the functions of language and problem solving and holds the capacity for learning. For learning to take place, a child must be functioning with the cortex part of the brain. When a traumatic incident occurs in a child’s life the brain is fundamentally changed and the response to the trauma is imprinted. Under times of stress the mid brain reacts fastest there for learning cannot take place. If the child is functioning in the midbrain, he may be unable to concentrate, remember pay attention, think clearly or make sense of what people are saying. Learning takes place in the cortex, and this is only possible when the child is not aroused.”(The language of Trauma and Loss Reference materials.PBS4549.org/Trauma

---

---

---

---

---

---

---

---

### Ruling In Compton Schools Case: Trauma Could Cause Disability

Students who experience traumatic events while growing up in poor, turbulent neighborhoods could be considered disabled, a federal judge has ruled in a high-profile case involving the Compton, Calif., schools.”

“The ruling from U.S. District Judge Michael W. Fitzgerald, released on Wednesday, involves a class-action lawsuit filed against the Compton Unified School District. The plaintiffs argued that students who have experienced trauma are entitled to the same services and protections that schools must provide to traditionally disabled students.”

---

---

---

---

---

---

---

---

“The plaintiffs estimate that roughly 25 percent of the 22,000 students who attend CUSD have experienced at least two or more "severe traumas." But the judge wrote that exposure to trauma does not guarantee that a child (1) will suffer "from cognizable trauma-induced disabilities for purposes of the proposed class definition, and (2) have been denied meaningful access to their education."

“It's an important distinction Fitzgerald is making here. He's not questioning whether exposure to traumatic events can disable a student. He's saying that exposure to traumatic events does not guarantee disability.”

---

---

---

---

---

---

---

---

## Compton Trauma Case

<http://www.msnbc.com/melissa-harris-perry/watch/compton-students-file-suit-for-complex-trauma-562120259820>

---

---

---

---

---

---

---

---

## Arousal and Cognitive Functions

“After an individual is exposed to a trauma-inducing incident, survivors may become frozen in an activated state of arousal. Arousal refers to a heightened state of alert or persistent fear for ones safety. Short term and prolonged arousal can effect cognitive and behavioral functions.” (Steel, Dr. W, Trauma’s Impact on Learning and Behavior: A Case for Interventions in Schools, Research and Interventions V@ N2 2002-revised Dec. 2008)

---

---

---

---

---

---

---

---

### Hyper Arousal

Fight or flight,  
 Aggression, Overreaction,  
 Temper tantrums,  
 Threatening behaviors,  
 Sense of urgency,  
 Impatient,  
 Poor boundaries,  
 Hyper-activity,  
 Defiance,  
 Explosive

---

---

---

---

---

---

---

---

### Hyper Arousal

Nervous  
 A State of chronic mobilization  
 Verbal outbursts,  
 Pacing,  
 Rocking,  
 Hyper-vigilance,  
 Fidgeting,  
 Lack of focus,  
 Nail biting,  
 Sexually reactive

---

---

---

---

---

---

---

---

### Age range of students and the effects of trauma in the school setting

- Students process traumatic events individually based on their age and development level.
- Pre-school students- “May lose acquired developmental milestones. They may increase behaviors such as bedwetting, thumb sucking and regress to simpler speech. Temper tantrums may increase. They often have trouble falling to sleep, staying asleep or experience nightmares.” ([www.nctsnct.org](http://www.nctsnct.org))

---

---

---

---

---

---

---

---

### Elementary Aged Students

- “Increase in somatic complaints, changes in behaviors, display inconsistent behaviors. Attention, concentration and school attendance become inconsistent. Older elementary students may excessively talk about or ask numerous questions about the event.” ([www.nctsnct.org](http://www.nctsnct.org))

---

---

---

---

---

---

---

---

### Middle and High School Aged Students

- “Students become self conscious about their emotional response to the event. Shame and guilt may be experienced. Some older students experience fantasies about revenge alters the student’s view of the world. Students may begin to engage in self-destructive and reckless behaviors. Interpersonal relationships change. Changes in school attendance, performance and behavior can also occur.” ([www.nctsnct.org](http://www.nctsnct.org))

---

---

---

---

---

---

---

---

### Academic Instruction

- “The relationship between the educator and student/family becomes incredibly important.”
- The learning difficulties of traumatized children and children with learning disabilities have different sources, similar teaching strategies are effective with both groups. Traumatized children respond well to literacy interventions, classroom accommodations and specialized instruction.”

---

---

---

---

---

---

---

---

## Academic instruction (continued)

### Overarching Teaching Approaches

"The particular challenge when teaching traumatized students is providing an atmosphere that allows teachers to go beyond social and behavioral issues to address the student's learning needs. This teaching process consists of interrelated components:

1. "Islands of Competence." The educator needs to discover the student's area, or island of competence.
2. Predictability. Established routines and positive responses are particularly helpful.
3. Timing of Lessons and Activities. Visual schedules and reviewing daily activities help provide a safe environment.
4. Transitions without trauma. Preview new people, places, activities, what is happening next and a reviewing the schedule.
5. Safety. Children need to be in an environment that is free from physical and verbal threats, and promotes physical and psychological safety.

---

---

---

---

---

---

---

---

## Academic Instruction continued

6. Written plans when appropriate. Examples, IEPs, 504 plans, safety plans, functional behavior assessments. When appropriate.

7. Consistency with classmates. Students should receive the same type of work as their classmates. If modifications are made, other students should not be aware. Be honest with the student if he/she is struggling.

8. Positive behavioral supports. Breaking tasks into smaller parts and provide encouragement throughout the day."

---

---

---

---

---

---

---

---

## Language-Based Teaching Approaches

1. "Use multiple ways to present information. Use multimodal approaches to instruction.
2. Processing specific information. Pre teach new vocabulary and concepts. Use of graphic organizers, ask questions to assist with predicting outcomes, repeating sequences, use of physical manipulatives.
3. Identifying and processing feelings. Traumatized children often have trouble using words. Help them to identify their feelings and then use words to describe them. This will also assist them with calming down." (Mass. Advocates for Children: Trauma and Learning Policy Initiative, 06.2009, p.61-65)

---

---

---

---

---

---

---

---

## Resources

- National Institute of Trauma and Loss in Children, [www.tlcinst.org](http://www.tlcinst.org)
- Special Education Staff in your building.
- Social Workers/Agency Staff
- Massachusetts Advocate for Children, [www.massadvocates.org](http://www.massadvocates.org)

---

---

---

---

---

---

---

---

## References

[The Effects of Trauma on Schools and Learning | National Child ...](#)  
 The **Effects of Trauma on Schools and Learning** ... A **traumatic** experience may have A profound **effect** on the physical health, mental health, and development of  
<http://www.nctsn.org/resources/audiences/school-personnel/effects-of-trauma>

[Trauma's Impact on Learning and Behavior](#)  
**Trauma's Impact on Learning and Behavior:** A Case for Interventions in Schools. Reprinted from **Trauma and Loss: Research and Interventions V2 N2 2002** ...

[Helping Traumatized Children Learn](#)  
 The **Impact of Trauma on Learning** | 14. The **Trauma** Response in the Classroom 15. **Trauma's Impact** on Academic Performance, Behavior, and Relationships ...  
[http://www.massadvocates.org/documents/HTCL\\_9-09.pdf](http://www.massadvocates.org/documents/HTCL_9-09.pdf)

[The Accumulative Effect of Trauma Exposure on Short Term and Delayed Verbal Memory in a Treatment Seeking Sample of Female Rape Victims](#). (Nixon R.D., Nishith, ., & Resick P.A., Journal of Traumatic Stress, 2004)  
<http://www.ncbi.nlm.nih.gov/pmc/articles/PMC2977921/>

---

---

---

---

---

---

---

---

## References Continued

[Ruling In Compton Schools Case: Trauma Could Cause Disability](#),  
<http://www.npr.org/sections/ed/2015/10/01/445001579/ruling-in-compton-schools-case-trauma-could-cause-disability>, Corey Turner, Oct. 01, 2015

---

---

---

---

---

---

---

---