

The Effects of Trauma on Brain Development and Learning

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"The expectation that we can be immersed in suffering and loss daily and not be touched by it is as unrealistic as expecting to be able to walk through water without getting wet." - Rachel Remen

Presentation Objectives

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Develop a new way of looking at angry, aggressive, and acting out students.

Challenging Behaviors

<http://www.youtube.com/watch?v=AQ3hjymiCCq&sns=em>



Behavior Patterns Observed

- physical aggression toward peers and staff



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- bolting/flight
- withdrawal and hiding
- work refusal
- defiance
- rapid mood changes
- lack of motivation
- inattentiveness
- frequent absences OR never absent



- Inadequate Resources
- Loss/Separation
- Multiple Caregivers
- Domestic Violence
- Family History of Mental Health Issues
- Exposure to Substance Abuse or Violence
- Homelessness/Frequent Moves
- Acute traumas: Accidents, injuries, fires



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Rather than ask, "What is wrong with this child, and how do we stop it?"

We need to ask, "What happened to this child, and how do we help them?"

Adverse Childhood Experiences (ACES) Study

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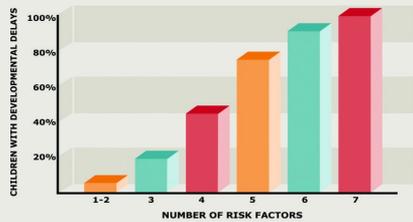
Adverse Childhood Experiences (ACES) Study

- Landmark study done by the CDC and Kaiser Permanente regarding relationship of ACEs to many of the leading causes of death in adults.
- The more traumatic experiences, the greater the risk of poor physical and behavioral health outcomes.

ACE Study Video

<https://vimeo.com/139998006>

Consequences Of Unresolved Trauma



Importance of the Adverse Childhood Experiences Study

- ACEs are surprisingly common – 44% of 17,337 adults reported physical, psychological or sexual abuse as children.

(2014, <http://www.acestudy.org/>)

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- ACEs are surprisingly common – 44% of 17,337 adults reported physical, psychological or sexual abuse as children.
- They happen even in “the best of families”.
- Almost two-thirds of our study participants reported at least one ACE, and more than one of five reported three or more ACEs

(2014, <http://www.acestudy.org/>)

Three Types of Stress

(National Scientific Council on the Developing Child, 2005)

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Three Types of Stress

- Positive stress: moderate, short-lived stress responses.
- Tolerable stress: more intense stress responses that allow enough time to recover, or occur in a relatively safe environment with the presence of supportive adults.
- Toxic stress: strong, frequent or prolonged activation of the body's stress management system, without access to supportive adults in a safe environment.

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The Impact of Stress on the Brain

<https://youtu.be/rVwFkcOZHJw>

Bimodal Response to Stress

Hyperarousal
Externalizing behaviors,
more common in males

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- Fight
- Flight
- Hypervigilant
- Reactive

Bimodal Response to Stress

Dissociation
Internalizing behaviors
more common in females

f

Bimodal Response to Stress

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- Freezing
- Fainting
- Numbing
- Compliance
- Derealization (depersonalization)

What is Trauma

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Trauma is not an event in itself, but rather a response to a stressful experience in which a person's ability to cope is dramatically undermined.

What is Trauma

"Complex" or "Developmental" Trauma describes both a child's exposure to multiple and chronic traumatic events, often of an invasive, interpersonal nature, and the wide-ranging, long-term impact of this exposure.

<https://youtu.be/KqS.Jom5f20c>

Distinguishing Characteristics

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- The trauma involves a violation of the basic safety and support expected in intimate family relationships.
- Trauma exposure is typically persistent but episodic. This results in the child enduring high levels of unpredictability and recurrent exposure to risk.

Complex Trauma

<https://www.youtube.co/watch?v=IPftosmseYE>

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Complex Trauma

A youth's brain/body that develops within the context of trauma can be more easily triggered into survival brain by "trauma reminders" or "triggers" even when there is no actual threat.

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- This makes these children and youth react to normal experiences as if they were life and death threats.
- This is not a rational/cognitive process. It is wired into their physiological response.

Trauma Triggers:

Triggers activate the "survival brain," causing youth to react as though a "there and then" experience (previous traumatic event) is happening "here and now" (in current reality).

Trauma Triggers:

Common Triggers include:

- Unpredictability (e.g. a fire drill)
- Sensory overload
- Feeling vulnerable or frustrated
- Confrontation

Trauma and Resilience: An Adolescent Provider Toolkit; Adolescent Health Working Group 2013

Points to Ponder

- When youth are in a “triggered” state, the “learning brain” (higher functions of the frontal lobe) goes *offline*.

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- When youth are in a “triggered” state, the “learning brain” (higher functions of the frontal lobe) goes *offline*.
- Verbal warnings or rational arguments that make demands on these higher functions may escalate the situation as youth are physiologically unable to access these functions when they are in a triggered state.

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- Language and verbal processing deficits

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- Decreased ability to organize and process information

Impact on Adult Relationships

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- Distrustful of adults due to their preoccupation with physical/emotional safety

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- Challenge adults/overreact to gain control

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- Challenge adults/overreact to gain control
- Vie for power in order to feel safe

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Impact on Peer Relationships

- Delays in social skills
- May use a “strike first” posture in response to real or perceived threat
- Often misinterprets classroom encounters and then overreacts in a way that frightens peers
- May engage in traumatic play that alienates or scares other children

How Traumatized Children are Typically Diagnosed

The most common psychiatric diagnoses in order of frequency:

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QUESTIONS?

Interventions for Children with Trauma

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