

Trauma & Adolescents

Biological, emotional, and relational effects of trauma on teenagers



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Trauma and ACEs

What is trauma?

- An event is traumatic if it is extremely upsetting, at least temporarily overwhelms the individual's internal resources, and produces lasting psychological symptoms.¹

What are ACEs?

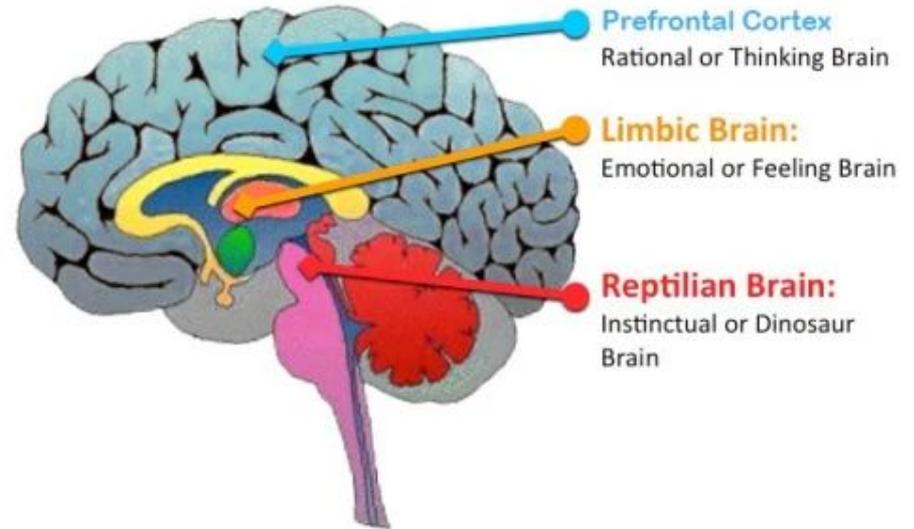
- Adverse childhood experiences (ACEs) are a set of ten defined events, including parental separation, parental imprisonment, neglect, hunger, substance abuse in the home, etc. that occur before the age of eighteen and can have long-standing effects on the developing child.³

Biological Effects

The reptilian brain is responsible for survival instincts and the fight/flight/freeze responses. The limbic system is responsible for emotional regulation, and regulating the responses fired off from the reptilian brain. The prefrontal cortex is responsible for higher thinking and reasoning.

When a child hits age 10-12, the prefrontal cortex begins a period of restructuring, which causes the adolescent to then respond mostly from their survival and regulatory systems.²

When trauma is involved, the limbic system can become overloaded with stress hormones and impair the regulatory functioning, leaving the trauma-exposed child in a deficit of both regulatory and reasoning functions.



Common biological effects of trauma:⁴

- Attention problems
- Learning delays
- Lack of concentration
- Memory problems
- Highly distracted
- Issues with steady, concentrated focus

Emotional Effects



The limbic system is responsible for emotional responses. When the limbic system is bombarded with stress hormones, there are two ways to regulate these emotions. One way is by activating prefrontal cortex functions through awareness of bodily sensations of stress. Another way is by activating the reptilian brain through deep breathing.⁵

In teenagers, whose prefrontal cortexes are restructuring at this time and somewhat offline, higher cognition is paused, and emotional regulation is depending only on response from the reptilian brain.

If there has been childhood trauma, the reptilian brain which drives those instinctual responses is impaired. This can cause the entire system for emotional regulation to be thrown off and can result in extreme emotions in the teenager.

Common emotional effects of trauma:⁴

- Dissociation
- Issues with emotional regulation
- Extreme emotional reactions
- Becoming withdrawn
- Being “stuck” in reactivity
- Substance abuse issues as a means to regulate emotions

Relational Effects

Since the prefrontal cortex of the adolescent brain is restructuring, teenagers react more from their limbic and reptilian brain systems, and are more likely to interpret neutral faces and other external cues as hostile which then activate a survival (fight/flight/freeze) response.²

Intergenerational trauma and attachment issues can occur when parents have not made sense of their own childhood and life experiences and cannot attune or contain the strong emotions of their children.²

“If an organism is stuck in survival mode, its energies are focused on fighting off unseen enemies, which leaves no room for nurture, care, and love. For us humans, it means that as long as the mind is defending itself against invisible assaults, our closest bonds are threatened, along with our ability to imagine, play, learn, and pay attention to other people’s needs” (Van der Kolk, 2014, p. 76)⁵



Common relational effects of trauma:⁴

- Lack of trust
- Aggression
- Compliance
- Negative perception of the world
- Negative perception of people

Treatment Considerations

- **Know your stuff.** Your ability to make sense of your own life can enable you to attune to your child, contain his extreme emotions, and deepen your attachment bonds.²
- **Say “yes”.** Studies show that saying “no” can create a reactive state in an individual, while saying “yes” can create a receptive state.² Get creative in how to create more opportunities to say “yes” to your teenager.
- **Treat symptoms.** If your child is showing signs of impaired learning, memory, and/or attention issues, behavioral therapy can help treat these symptoms.⁴ There is not a miracle drug that will cure biological trauma effects.
- **Teach emotional regulation.** Teaching your child techniques such as mindfulness, grounding, breathing exercises, yoga, and action can help your child learn to regulate his emotions. Action/exercise can release stored up or excess stress hormones.⁵

Thank you.



References

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- ² Codrington, R. (2010). A family therapist's look into interpersonal neurobiology and the adolescent brain: An interview with Dr. Daniel Siegel. *The Australian and New Zealand Journal of Family Therapy*, 31(3), 285-299.
- ³ Felitti, V. J., Anda, R. F., Nordenberg, D., Williamson, D. F., Spitz, A. M., Edwards, V., Koss, M. P., & Marks, J. S. (1998). Relationship of childhood abuse and household dysfunction to many leading causes of death in adults: The adverse childhood experiences (ACE) study. *American Journal of Preventive Medicine*, 14(4), 245-258.
- ⁴ NICABM. (2013, April 19). *Bessel van Der Kolk on the treatment of trauma: How childhood trauma is different from PTSD* [Video]. YouTube. <https://www.youtube.com/watch?v=UxPAAt-Esv8Q>
- ⁵ Van der Kolk, B. A. (2015). *The body keeps the score: brain, mind, and body in the healing of trauma*. New York: Penguin Books.