

Opioid Use Disorder Education and Treatment ECHO Series

Session 3 - ACE Scores and Trauma

December 7, 2021

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University of Minnesota Extension



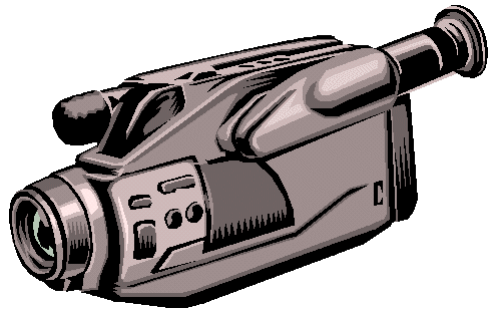
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STRONG MEDICINE FOR MINNESOTA

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Announcements



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SESSIONS ARE RECORDED



YES, THERE'S *FREE* CME

Attendance

- Please chat us the names of people on ECHO if there are multiple people in your room!
- “Re-name” your self so we know who’s here!
- Please turn your video on!
 - Human connection!
 - And we do NOT care if you are eating!



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Case Presentations!

The ECHO model is based on case-based learning! The case presentation form is on the MAFP website and the announcements email!
But feel free to present in any de-identified format!

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Weaving the Understanding of ACEs, Historical Trauma, and Resilience for Healing in Tribal Communities

Upcoming Tuesday ECHO Sessions

- **Tuesday, January 4, 2022:** Mental Health and Addiction
- **Tuesday, January 18, 2022:** Overlap of Addiction and Chronic Pain
- **Tuesday, February 1, 2022:** Addiction Screening and Treatment Basics

Upcoming Wednesday ECHO Sessions

- **Wednesday, December 8, 2021:** Micro-inductions & Macro-inductions

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“The Addiction Connection Podcast”

Weekly addiction
topics- Tuesday
release day!

www.buzzsprout.com/954034

(Or anywhere you get your podcasts!)

Email us questions:

theaddictionconnectionpodcast@gmail



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Objectives:

- Understand what Adverse Childhood Experiences (ACEs) are and their impact on the individual
- Recognize how ACEs can generate epigenetic changes that ripple through the generations
- Understand the stress response in the body and long-term impacts of toxic stress
- Trauma on the brain and neuroplasticity for healing

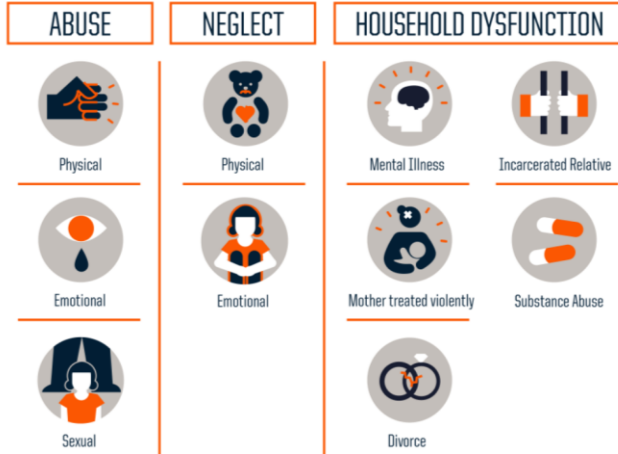
Session overview

- ACES 101
- Epigenetics
- ANS: PNS/SNS and getting “stuck”
- Trauma and neurodevelopment
- Resilience: resetting the ANS and finding ourselves and one another again



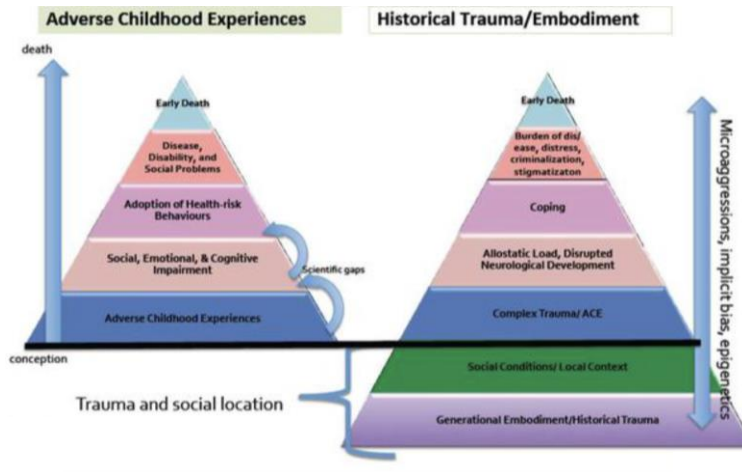
Original ACES Study

The three types of ACEs include



<https://www.rwjf.org/en/library/infographics/the-truth-about-aces.html>

Trauma and Social Location



Dose Response Relationship

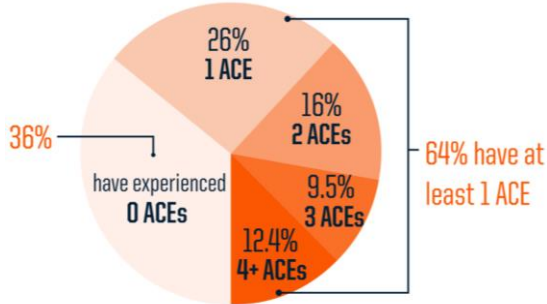
As the number of ACEs increases, so does the risk for negative health outcomes



<https://www.rwjf.org/en/library/infographics/the-truth-about-aces.html>

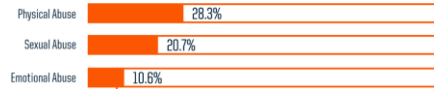
Prevalence

Of 17,000 ACE study participants:



The ACE study* revealed the following estimates:

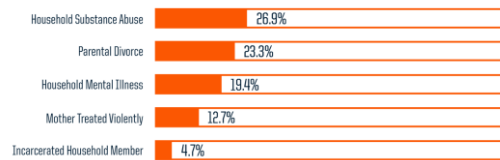
ABUSE



NEGLECT

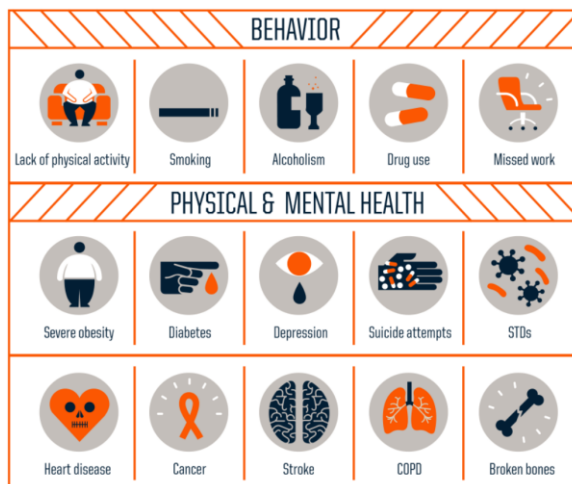


HOUSEHOLD DYSFUNCTION



<https://www.rwjf.org/en/library/infographics/the-truth-about-aces.html>

ACE Attributable Problems



<https://www.rwjf.org/en/library/infographics/the-truth-about-aces.html>

Unresolved Trauma and Social Outcomes

- “80% correlation between trauma and addiction.”
(Linda A. Curran)
- 2/3 of those in recovery for addiction have experienced 1+ ACEs
- Research evidence consistently finds elevated rates of trauma among incarcerated samples. (Wolff, N. & Shi, J. 2012)
- 75-93% of 93,000 children incarcerated have 1+ ACEs
[Healing Invisible Wounds: Why Investing in Trauma-Informed Care for Children Makes Sense](#)

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Trauma Passed Through the Generations

Epigenetics

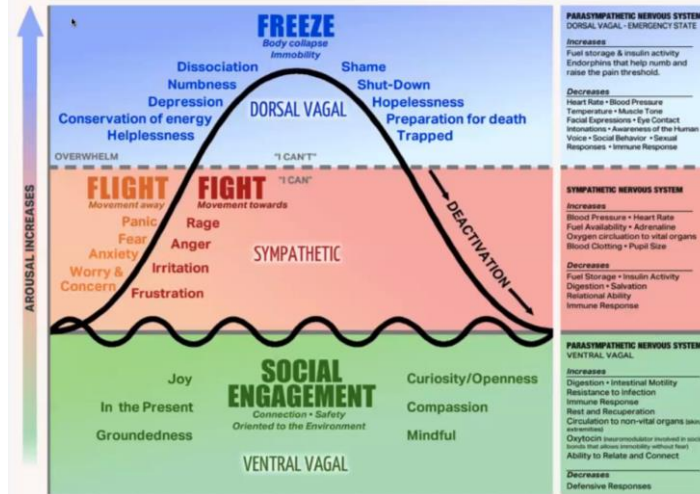


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Steven Porges

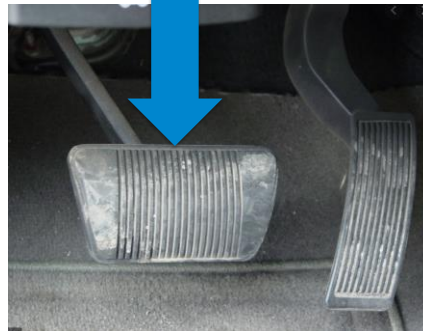


Autonomic Nervous System (ANS)

Sympathetic Nervous System (SNS)



Parasympathetic Nervous System



Stress Response

- FIGHT
- FLEE
- FREEZE
- FAINT



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SNS: Fight/Flee

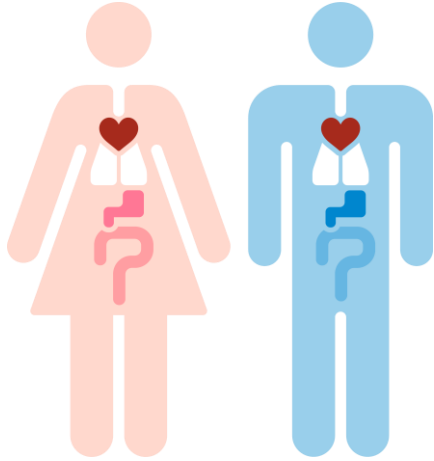
- Adrenaline rush
- Breathing quickens
- Cortisol release
- Digestion shuts down
- Blood diverted
- Immune system bump



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SNS Stuck “ON”



- High blood pressure/ stroke/heart attack
- Type II Diabetes
- Inflammation
- Digestive issues

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Dissociation/Faint

- Sensory input goes awry
- Emotional numbing
- Dizzy/lightheaded
- Blood pressure drops
- Heart rate decreases



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Dissociation Over Time



Dissociative disorders

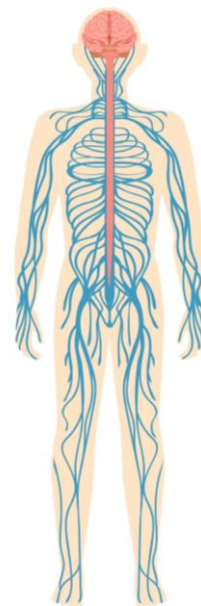


Disconnected from body

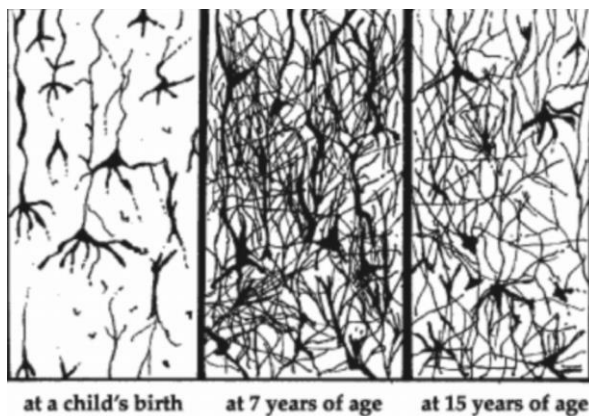


Disconnection from emotions

Human Nervous System



Brain Wired Through Experiences



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Handy Model of the Brain



Dr. Daniel Siegel

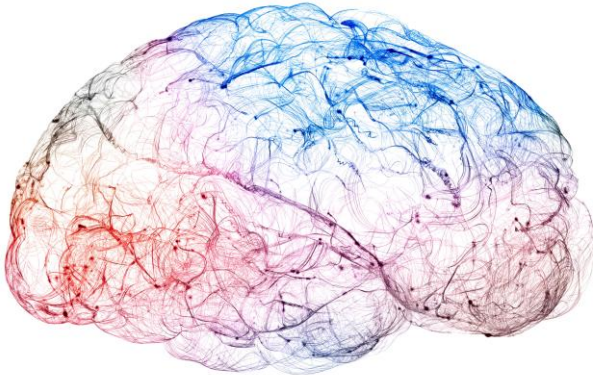
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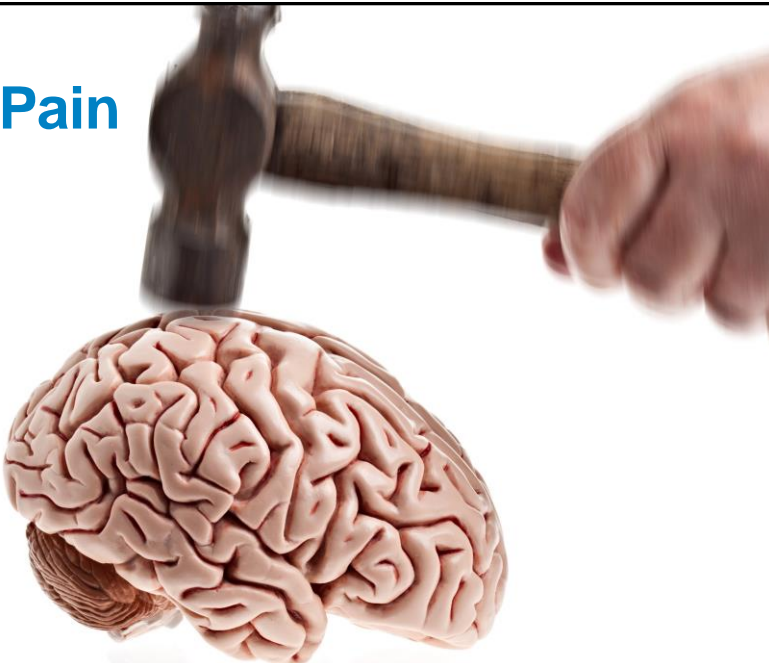
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Stress Hormones & Brain Architecture

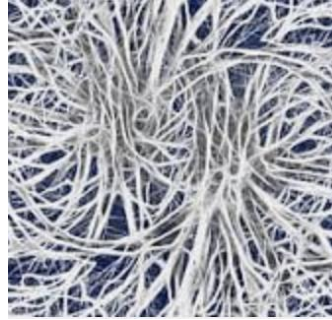


Your Brain on Pain



Resetting the “ANS”

- Creating new pathways and patterns for thriving!



Core Protective Systems-ACE Interface

Individual Capabilities

Attachment & Belonging

Community/Culture/Spirituality

Individual Capabilities

- Positive View
- Self-Efficacy
- Self-Regulation



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Attachment & Belonging



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Community, Culture, and Spirituality



MIIGWECH!

References

- ACE Interface
- Center for Mind Body Medicine
- [Wolff & Shi. \(2012\)](#) Childhood and Adult Trauma Experiences of Incarcerated Persons and Their Relationship to Adult Behavioral Health Problems and Treatment
- [Healing Invisible Wounds: Why Investing in Trauma-Informed Care for Children Makes Sense](#)
- The Developing Child-Harvard: <https://developingchild.harvard.edu/science/key-concepts/toxic-stress/>
- Elizinga, B., & Krause-Utz, A. (2018, Feb 12). Current understanding of the neural mechanisms of dissociation in borderline personality disorder. *Current Behavioral Neuroscience Reports* 5(1): 113-123
- Dr. Bruce Perry
- Dr. Daniel Siegel
- Dr. Gabor Maté

For questions regarding content from this ECHO:

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Podcast:
The Addiction
Connection



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