So why are early life experiences so challenging to get past?
Building the neuro-structure
We are Neuroceptive to our environments

The concept of being **Neuroceptive**

- Cellular awareness
- A child’s nervous system is looking for stimulus to create procedural tendencies or templates. Those templates will be developed in:
  1. **Relational patterns** – meaning and view of self and others
  2. **Emotional patterns** – reduced array of emotional expression as habituated patterns emerge
  3. **Cognitive patterns** – not the content of thought, but the how one thinks and perceives
  4. **Physical patterns** – Tension, movement, posture, coordination, etc.

Human beings look for conformation not disconfirmation. The quality of the pattern built is rarely evaluated or proves. Very little self-reflection or self-evaluation exists on habituated neuro-networks!
Complex trauma is usually associated with environments of Toxic Stress or environments that interfere with self-regulation and being able to use an integrated brain and nervous system.

**Person & environment interaction builds implicit (procedural) memory which is tough to overcome**
• Chaotic environments
  – What are chaotic environments
• Aggressive environments
  – What is an aggressive environment (anytime rules come before relationship)
• Punitive environments
  – Where there is a demand for performance that is valued more highly than attachment or relationship
• Inconsistent practices
  – When the rules for operating constantly flux based on the annoyance of those in charge
• Instability
  – Lack of predictability
  – Inability to trust situation, or people
Human development

• What are some of the procedural memories being built in the children that will end up with problems in school, involvement in DCS, or experience family dysfunction?

  • Not feeling capable
  • Not feel capable of being successful or achieving at something
  • Not feel cared for
  • Not belong to a group
  • Not have power to and influence in environment/world
  • Not in control of one’s life
  • Not stimulated in mind and body
  • Not have fun and pleasure

  • Not understand reality
  • Not appear competent to others
  • Not feeling worthwhile or held in esteem by to others
  • Not feel safe
  • Not feel secure in our attachments to others
  • Not have a sense of meaning or purpose in life
A different example of (implicit) or procedural memory?
For a child raised in a toxic environment, that is traumatic or filled with adversity, what must happen to create positive change?

- The environment must be stabilized.
- The adults in the child’s life (parents, teachers, etc) must be able to regulate themselves, even when uncomfortable.
- One must be able to stay focused, be intentional and deliberate to create any kind of positive change.

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Why is this point important

The state of the body influences behavior, emotions and thinking

What are the bodies of children experiencing in the environment?
What follows are brief highlights of the biology that influences emotion, thinking and behavior.
What happens as the body creates a LIMBIC shift or sympathetic system dominance?

**Sympathetic/Hot:**
- Diaphragm muscles constrict
- Accelerate the heart rate
- Constricted blood vessels that raise blood pressure, muscle tension, physical sensation amplification.
- Inhibition of insulin production to maximize fuel availability
- Cold hands and feet
- Headaches
What happens to EMOTIONS, THINKING, and BEHAVIOR when the state of the body shifts?

There are absolutely correct responses that should be apparent, predictable and biological appropriate.
Nature of the sympathetic system

- Immediate
- No future
- Impulsive
- Irrational/illogical
- Little self reflection
- Little evaluation
- Poor ability to evaluate rewards
Change or transformation requires Bruce Banner not the HULK

A metaphor to use when thinking about how the body changes thinking, emoting and behaving
When you are in HULK mode what can people realistically expect from You?

Are you consistently able to...

✓ Sacrifice control to submit to authority?
✓ Believe demands, requests are fair, rational or just?
✓ Be still and act rationally, with logic, reason and planning?
✓ Be patient and planful in your response to any situation?
Impact of 2 hormones/biochemicals
There are many more

- **CORTISOL**
  a. Reduces
     - Hippocampal activity
     - Executive functioning
     - The ability to create sequential memory
     - Ability to see differences or distinctions (reality checking)
  b. Restricts access to the (impulse control center)
  c. Can act as a neurotoxin

- **ADRENALIN**
  a. Increases
     - Emotional memory
     - Sensory memory
     - Fear, anxiety, phobias, hallucinations, depression, agitation
  b. Reduces
     - ability to focus
     - sleep patterns
     - problem solving
     - goal follow through and attainment
When the whole brain works together
Hippocampal function

• Creates discrete/distinct elements from experience
• Necessary for reality checking
• Modifies and governs Amygdala function
• Serialize and/or sequence time within a context
• Connect separate brain regions as part of active integration
• Increases access to executive functioning
• Increases ability to inhibit behavior/Impulse control
• Greater sequential memory
• Logic/Reason
• Evaluation
• Planning
• Evaluate Rewards
These are not bad behaviors – just proof of the system in use (action oriented behaviors fight or flight)

- Angry
- Aggressive
- Defensive
- Reactive
- Impulsive
- Hostile
- Irrational
- Self-centered
- Poor focus

- Inattention
- Sleep disturbances
- Fidgety
- hyperactive
- anxiety
- Irritability
- Delays in reaching physical, language, or other milestones on time

Physiological congruent and predictable behaviors
These are not bad behaviors just proof of the system is in use
(passivity oriented behaviors related to mitigating behaviors)

- Freezing, stuck, paralysis of action
- **Dissociation**
- Emotional numbing
- **Distraction**
- Self-soothing
- **Addictions**
- **Self-injury**
- **Suicidality**
- **Compulsive behavior**
- Reactive
- Impulsive

- Emotional and psychological distancing
- Self-centered
- Sad
- Withdrawn
- Difficulty attaching securely
- Reluctance to explore the world

**Physiological congruent and predictable behaviors**
Behaviors Associated
Working with children that have a history of **Sympathetic/Limbic dominance**

- They will likely have a reduced processing capacity (*how much the brain can handle and process at one time*)
  - Low tolerance for demand
  - Will need to be clear and concrete
- Verbal memory impaired, it will be difficult to retain information verbally...like instructions
  - Difficulty processing information
  - Difficulty converting verbal instructions into memory and keeping things sequenced
- Generalizing ability reduced...difficulty carrying learning in one situation to another.

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Working with children that have a history of Sympathetic/Limbic dominance

- Difficulty initiating or starting an action
- Reduced ability to see big picture or broader issues
- Inability to evaluate consequences of action/behavior
- Reduced ability to self-monitor and respond to social cues
- Difficulty transitioning from situation to situation and adjusting to the shift
- Reduced ability to inhibit behavior, or stop one’s self
Working with children that have a history of **Sympathetic/Limbic dominance**

- Attending requires tremendous energy and a relaxed body which means that there will likely be a reduced ability to focus or follow through.
- Use sentences with few words...generally 7-10 max
- Less patient when not feeling heard
Additional Resources

• **Here is the link to** Dr. Rhoton's Resource page -- [https://aztrauma.org/rhoton/](https://aztrauma.org/rhoton/)

• You will need to sign up for a user account to view the pages, but there is no fee or cost.
State Targeted Response to the Opioid Crisis grant

OVERVIEW
Empower community coalitions in trauma informed strategies that increase effectiveness of prevention, treatment, and recovery programs by cultivating relationships with community stakeholders.
The widespread impact of trauma

The signs and symptoms of trauma

By applying this understanding into organizational culture, policies and services

Re-traumatization

All collaboration modules will contain overview:

Trauma-Informed Systems:

Realize

Recognize

Respond

Resist
Components

- Curriculum development
- Coach training
- Community coalition training
- Online training modules
- On-going support
Trauma informed coalitions are an integral parts of trauma informed communities.
Examples of Modules
• Overview of Childhood Trauma and ACEs
• Link between Childhood Trauma, ACEs, and Opioid Use Disorder (OUD)
• Creating Effective Media Campaigns
• Role of Justice System in Treating and Preventing OUD
• Role of Schools in Treating and Preventing OUD
• Role of Faith Community in Treating and Preventing OUD
• Role of Direct Service Providers in Treating and Preventing OUD

Trauma Informed Substance Use Prevention for Community Coalitions
Overview:

- Review what it means to be trauma-informed
- Define the justice system and how it works
- Explore how the justice system benefits from partnering with community coalitions
- Explore how community coalitions benefit from partnering with the justice system
- Highlight examples of best practices and successful partnerships
- Create hope for a healthier Arizona

All Collaboration models include:
All Collaboration models include:

Stakeholder Specific Questions & Resources

- Conferences to connect with community partners
- Resources available in community
- Questions specific to industry:
  - What are your expectations from community partners?
  - Do you see any additional needs that my coalition can help you with?
  - How can we achieve long-term success together?
All Collaboration models include:

Examples of Success in Arizona

The Faithful City and South Mountain W.O.R.K.S. Coalition

- TFC provides:
  - ACEs training and mindfulness exercises
  - Volunteers to help out the coalition’s programs and events
  - Various faith community resources and collaboration opportunities

- SM WORKS provides:
  - Diverse and excellent training opportunities related to substance use
  - Great resources and referrals to help out those who are struggling and vulnerable
  - Relationship building and networking opportunities with many other community organizations
Trauma Informed Strategies

• Step by Step guidance of how to interact with collaborating stakeholders
• Examples of successful partnerships in Arizona
• Continuing technical assistance to gather community resources, assist in outreach and further training
• Understanding that every community has different strengths and needs
• Evaluation and outcome assessment for each community
Questions?
Thank you!

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