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What Neurobiology can Tell Us About Student Behaviors and How We Can Support Student Regulation

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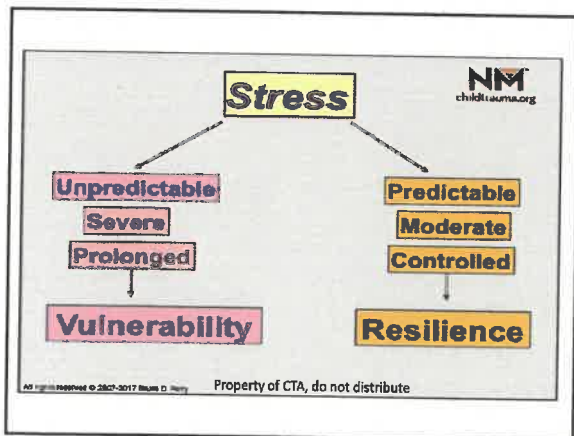
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Objectives

- Describe state dependent functioning and the impact on student behavior
- Identify how student state impacts academics and classroom relationships
- Learn regulation strategies to support functional classroom environments

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Use-dependent experiences create change..

- ▶ Use-Dependent - the more your brain practices a certain response to a stimuli the more likely it will respond in the same fashion to a similar stimuli.
- ▶ Negative stimuli = heightened state of arousal, activates stress response system, Fight, Flight, Freeze or Flock sets in, lower brain areas take over, and negative associations are made. (ie. Trauma and triggers are created)
- ▶ Positive stimuli = calmer state of arousal, full ability to learn, relate and regulate, higher brain functioning is capable, positive or neutral associations are made.
- ▶ What fires together wires together.

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Use-dependent experiences create change..

- ▶ Once negative associations are made it takes numerous positive, predictable, safe experiences without negative interference to make changes.
- ▶ Patterned, rhythmic, repetitive, safe experiences are needed to facilitate new neuropathways to increase regulator behaviors and decrease maladaptive functioning
- ▶ When possible it is recommended these are done with a attuned attentive caregiver the child feels connected to.

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State Dependent Functioning

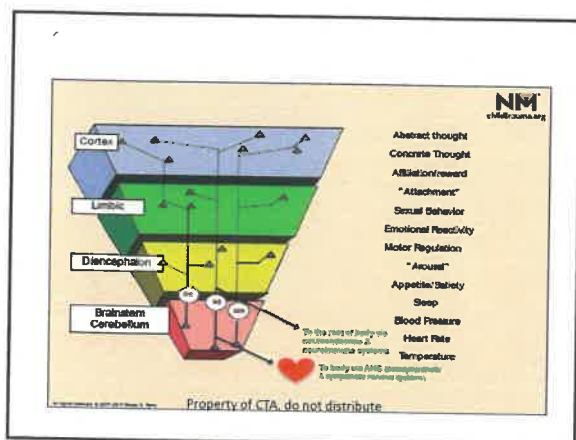
	Rest (R)	Flock	Freeze	Flight	Fight
Arousal Continuum	Rest (M + P, A+C)	Vigilance	Resistance	Defiance	Aggression
Dissociative Continuum	Rest (R + AF, C-A)	Avoidance	Compliance	Disassociation	Fainting
Primary Secondary Brain Areas	NEOCORTEX Cerebrum	SUB-CORTEX Limbic	LMBSIC Limbic	MIDBRAIN Brainstem	BRAINSTEM Autonomic
Cognition	Abstract	Concrete	Emotional	Reactive	Reflexive
Mental State	CALM	ALERT	ALARM	FEAR	TERROR

NM 21-11-17-18-19-20

• Impacts academics Impacts relationships

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Significant Stressors and Trauma Impact Neurodevelopment

▶ Resulting often times in:

- ▶ Escalating behavior, impulsivity, reactivity, defiance and/or checking out
- ▶ Symptoms that emulate diagnosis's like, ADHD, Spectrum Disorders, Oppositional Defiant Disorder, Disruptive Mood Dysregulation Disorder, Bipolar etc..
- ▶ Sensory or regulatory sensitivities that make it hard for students to learn, relate and regulate.
- ▶ Lower social functioning skills
- ▶ Less ability to handle transitions, and small stressors
- ▶ Lower test scores and reading comprehension

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Classroom Based Strategies

- Think of what you do! How do your everyday behaviors support positive days.
- Has to fit teacher, and teaching style to provide for co-regulation.
- This is not a new initiative—think of what your school already knows and does well, and how you dose this throughout your day.
- Focus on up regulation vs. down regulation

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- <https://www.youtube.com/watch?v=Ahg6qcgoy4>

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"Dosing"

- Dosing - A proactive intervention to increase regulator practices and decrease escalating behavior
- Builds resiliency to stressors, by frequent intervals of practice. Instead of..
- Think of dosing like taking medicine
- 2-4 dosing's a day in school, 5-8 minutes per dose
- Focus on 30 minutes prior to escalated classroom times

The first chart, titled "Frequency/Response/Day", shows a series of small blue bars representing frequent, low-intensity doses. The second chart, titled "Property of CTA, do not distribute", shows two larger blue bars representing less frequent, higher-intensity doses. Both charts have a y-axis labeled "Minutes" ranging from 0 to 30.

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Case Example

- Nick is a 10 year old boy who is in the 5th grade. He frequently has tantrums throughout the week that result in him needing to be out of the classroom. His behaviors have included unsafe behaviors such as throwing items, kicking a desk, and hitting his classmates. His teacher believes not getting his way is his main trigger. Nick is an average student in writing but below average in reading and math.

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Case Example

- What might explain his behavior based on state dependence and use-dependent functioning?
- What might you want to know more about Nick?
- What dosing plan could help Nick and his other classmates?

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Other Ways to connect

- Visit our website: www.sainta.org
- Social Media: @SaintAorg #7eTSS
- Inquiry form: <http://sainta.org/trauma-informed-care/inquiry-form/>
- Carey Jacobsen at cjacobsen@sainta.org for School Based Mental Health services or clinic branch questions
- Sara Daniel at sdaniel@sainta.org for Trauma Sensitive Schools trainings and other professional development needs
- The Clinic At SaintA at 414-463-1880 for individual, family and group therapy

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Connect with us

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