Regulating the Dysregulated Child

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ACE score of 5
- Parental MH
- Parental incarceration
- Parental substance abuse
- Parental separation (divorce)
- Domestic abuse

What does this mean?
- Compared to someone with an ACE score of 0:
  - 4 times more likely to become an alcoholic
  - 3 times more likely to suffer from chronic depression
  - 9 times more likely to attempt suicide
  - 2 times more likely to develop heart disease or have a stroke.

Additional possible trauma concerns:
- Disability: CP, LD
- Chronic health issues: CP, Seizures
- Premature-time in NICU

※ Why is this topic important to me?
If a child can do advanced math, speak 3 languages, or receive top grades, but can’t manage their emotions, practice conflict resolution, or handle stress, none of that other stuff is really going to matter.
* Take your pulse for 15 seconds.
* Take that number and multiply it by 4.
* Write that number down.
* What does your heart rate tell you?
*1.) We will define dysregulation and trauma and how it relates to the children we work with.

*2.) We will explore the 4 main parts of the brain, their function, and “symptoms” of child dysregulation that illustrate in which part of the brain they are functioning.

*3.) We will explore strategies to meet the needs of children when they are in a dysregulated state.

*What are our objectives today?
Trauma: a disordered psychic or behavioral state resulting from severe mental or emotional stress or physical injury

* an emotional upset
* it refers to extreme stress that overwhelms a person’s ability to cope.

What is Trauma?
* Emotional Dysregulation (ED): refers to an emotional response that is poorly modulated, and does not fall within the conventionally accepted range of emotive response.

    (can lead to)

* Behavioral Dysregulation: Possible manifestations of emotional dysregulation include angry outbursts or behavior outbursts such as destroying or throwing objects, aggression towards self or others, and threats to kill oneself.

* What is Dysregulation?
Perry’s Neurosequential Model

- Cortical
- Limbic
- Midbrain
- Brainstem

Empathy
Controlling yourself
Literacy

Emotional response

Coordination
Movement

Heart rate
Fight, flight, freeze

**Builds from the bottom up.**

*The Human Brain*
Brainstem -
* Develops in utero
* Maintains rock bottom survival such as body temperature, heart rate, sleep, and breathing
Midbrain:
* Develops in the first 3 years of life.
  - It is the relay center for visual, touch, taste, auditory, and motor system information, states of arousal (awake/sleep), appetite.
  - The Midbrain is directly involved with motor and sensory functions, it serve as the bridge of the Left and Right brain.

* Understanding the Human Brain-the Midbrain
**Limbic System:**
*Develops through adolescence
*Controls the emotional information and response; attachment.

*Understanding the Human Brain-the Limbic System*
**Cortical System (cortex):**
- Develops from adolescence through adulthood-never stops developing.
- Controls abstract and logical thought, problem-solving, behavior control, concentration, attention, understanding of consequences, and cognitive memories.
- In a healthy developed brain all learning eventually ends up in the cortex.

*Understanding the Human Brain-the Cortical System*
Why is it important to know this?

* Trauma and neglect impacts the development of these parts of the brain, depending on the time/age of occurrence.
  * Trauma-over-develops the part of the brain that was developing at the time
  * Neglect-under-develops the part of the brain that was developing at the time

* Neuropathways are not fully developed to access all parts of the brain to work together.

Understanding the Human Brain - importance of knowing the parts of the brain
* Why is it important to know this?
  * Not all children have experienced trauma that has had a lasting negative impact.

  **BUT...**

  * **All** children experience emotional and/or behavioral dysregulation at some time or another.

* Understanding the Human Brain—the importance of understanding the parts of the brain
Why is this important?
* Strategies to address trauma are positive experiences and practices to use for ALL children to learn how to emotionally regulate to the world around them.
* All development of skills, S-E, academic, etc, form within the context of relationships. By the same token, all healing happens within the context of at least 1 loving, empathetic relationship.

Understanding the Human Brain—importance of understanding the parts of

the brain
CHILDHOOD TRAUMA IS RELATIONAL TRAUMA... YOU CAN'T HEAL RELATIONAL TRAUMA BY YOURSELF. IT HAS TO BE HEaled IN RELATION.

*Ponder this...*
WHEN STUDENTS OPEN UP AND TALK TO YOU, THEY AREN’T LOOKING FOR YOU TO SOLVE THEIR PROBLEMS. THEY ARE LOOKING FOR YOU TO BE A EMPATHIC LISTENER.
*Brain Break!*
* Opportunity for the brain to take a break from whatever you are focusing on at that time
* 3-5 minutes, but can be shorter based on the needs of the children
* Breaks should be chosen to fit the needs of the children
4 Main Types:

* Breathing/relaxation
* Focusing activity
* Energizing/physical
* Rhythmic

What is a Brain Break?
* Stand up at your spot.
* Using your finger, trace each letter of the alphabet in order in the air...BUT...
  * Instead of saying each letter name as you write it, count each letter from 1-26.

* Brain Break
* What type of brain break do you think this was?
  * Breathing/relaxation
  * Focusing activity
  * Energizing/physical
  * Rhythmic

* How did you feel while doing the activity?
* How did you feel after you completed the activity?
* How could this be modified for the age group you work with?

* Group Talk
* Take your pulse again for 15 seconds.
* Multiply that number by 4.
* Write it down next to your first pulse rate number.

* Is your number lower or higher?
  * Why?

* Quick health check!
HEART RATE

- Calm / Alert: 70-90
- Alarm: 90-100
- Fearful: 101-110
- Terror: 111-135
- Heart Rate: 136-160

* What does your heart rate tell you?
What’s Next?!

*What Can We Do?
THE AMYGDALA HIJACK

The amygdala in the limbic system is a storehouse for emotional memories and is responsible for survival instincts, such as “fight or flight”. When the amygdala is hijacked, it also causes many different anxiety disorders.

Thalamus

External stimuli -> passes from thalamus to amygdala -> brain decides whether to send data from external stimuli to limbic or cortex. If low to moderate stress levels, the prefrontal cortex calms the amygdala down by sending it messages of pro and con of reactions.

Amygdala

However, in situations where there is extreme stimulus, the activation of this amygdala shuts off the prefrontal cortex function making one’s emotional reactions primary to one’s intellectual abilities. This experience is called the “amygdala hijack”.

Amygdala hijack: The amygdala overrides the cortex when external stimuli trigger enough of an emotional charge.

The amygdala hijack exhibits three signs:

- Seizing emotional awaken
- Sudden onset
- Pre-episode realization of the situation was inappropriate

*More Brain Power!*
* How do we know what to do?
  * Look for symptoms
    * Determine what part of the brain child is operating out of.
    * Implement strategy to meet that need.
  * Practice full class brain break exercises daily at 20 minute intervals
**Which Brain Break Should I Use?**

**Basic Guidance**

- **Cortical**
  - Heart rate up to 95
  - Learning part of the brain
  - Logical thought and understanding of consequences

- **Limbic**
  - Heart rate of 96 to 110
  - Emotional part of the brain
  - Brain break types: Focusing and Rhythmic

- **Midbrain**
  - Heart rate of 111 to 135
  - Relay center for senses and states of sleep/awake and appetite; involved with motor functions; serves as bridge of left and right brain
  - Serves as bridge of left and right brain.
  - Brain break types: Energizing, Breathing/Relaxation, Rhythmic

- **Brainstem**
  - Heart rate above 135
  - Maintains/controls bottom survival such as body temperature, heart rate, sleep, and breathing.
  - Brain break types: Breathing/Relaxation, Rhythmic

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*Brain Break guidance*
At your table, discuss:

* What do you like people to do for you when you are dysregulated?

* What do you NOT like people to do for you when you are dysregulated?
* For healing and prevention of dysregulation:
  * Embed strategies 3-5 minutes every 20 minutes

* After dysregulation occurs:
  * Use strategies for as long as it takes for child to regulate
“Think before you act” is not always an option

When trauma is involved, triggers to the trauma happen, causing the dysregulation—being aware helps to prevent triggers

Behaviors of dysregulated children really are largely “out of control”—they cannot control what they are doing

Behaviors of dysregulated children are not about you! Do not take it personally. Remember, the ability to relate/maintain relationship is not possible until they are regulated.

REGULATE—RELATE--REASON

Other Considerations
Brain Break!
* At your table, select 1 person to be the leader.
* The leader should then create a simple clapping/slapping/stomping/snapping pattern for the group to follow.
* The group should replicate the pattern.
* Start to the left of the leader, as you continue the pattern, each person should say their favorite food to eat.
* Go around the circle one time with this activity.

*Brain Break Activity*
What type of brain break do you think this was?
* Breathing/relaxation
* Focusing activity
* Energizing/physical
* Rhythmic

How did you feel while doing the activity?
How did you feel after you completed the activity?
How could this be modified for the age group you work with?
A child operating in his/her brainstem exhibits the following:

- Distractibility
- Attention difficulty
- Difficulty transitioning
- Abnormally high or abnormally low heart rate
- Abnormal body temperature
- Skin sensitivities
- Need to have items in mouth

*Which Part of the Brain?-Brainstem*
Prevention/Intervention:
- Rocking/swinging
- Healing touch/massage
- Balance/stretching activities
- Chewing/sucking
- Music/drumming
- Yoga
- Deep breathing
- Animal-assisted activities

*So What Can I Do?*
A child operating in his/her Midbrain will exhibit the following:

- Poor gross/large muscle skills
- Poor fine motor skills
- Sleep problems
- Eating problems
- Sensory seeking or sensory avoidant behaviors
- Easily agitated or shuts down easily
- Impulsivity
- Difficulty with transitions
- “zoned out”
- Self-harming behaviors

*Which Part of the Brain? - Midbrain*
Prevention/Intervention:
• Walk/run/exercise
• Bilateral movements (involving both sides of body)
• Creative arts
• Music/drumming
• Large muscle movements
• Breathing exercises
• Dance-routine dances like Macarena, chicken dance, etc.
• Animal-assisted activities
• Sleep routines/rituals
• Consistency with transitions
• Horticulture (ex: gardening, planting)

* So What Can I Do? - Midbrain
A child operating out of his/her limbic system will exhibit the following:

- Inability to express or regulate emotional experiences
- Become overly anxious or aggressive or become withdrawn or upset
- Lack of attunement or empathy
- Difficulty sharing
- Difficulty forming relationships
- Inability to gain pleasure from interactions with others
- Difficulty with short term memory and learning
- Inability to become observed in age-appropriate play
Prevention/Intervention:
• Parallel interactions with adults (side by side)
• Parallel interactions with peers (side by side)
• One on one attention
• Proximity to caring adult
• Mentoring
• Counseling
• Small group activities
• Team sports/activities with individual performance
• Social-emotional teaching/activities
• Animal-assisted activities

* So What Can I Do?-Limbic
An adolescent/adult operating out of his/her Cortex with lower functioning limbic, midbrain, or brainstem systems exhibits the following:

- Difficulty with lecture/note-taking/reading activities
- Lack of basic skills that are supported by lower portions of the brain
- Important to develop lower parts of the brain! Prevention/intervention strategies implemented at lower brain levels improve development of cortex

*Which Part of the Brain? - Cortical*
Brain Break
While drawing each side of a square in the air:
* Take deep belly breath in to a slow count of 4.
* Hold that breath for a slow count of 4.
* Breath out slowly to a slow count of 4.
* Hold that to a slow count of 4.
Repeat 5 times.

*Square Breathing*
What type of brain break do you think this was?
* Breathing/relaxation
* Focusing activity
* Energizing/physical
* Rhythmic

How did you feel while doing the activity?
How did you feel after you completed the activity?
How could this be modified for the age group you work with?

* Group Talk
Prevention/Intervention strategies to stimulate all levels of the brain (these can be safe, go-to strategies when unsure what brain state children are in or when children’s brain states are “all over the place”):

- Music/drumming
- Large muscle movement
- Breathing
- Animal assisted activities

*So What Can I Do When I Do Not Know Where in Their Brains My Students are Operating?*
* Other Strategies:
  * Fidget tools
    * The brain loves movement (big or small)
    * Mindless activity, which actually improves attention
    * Different fidgets offer different textures which can be calming to the brain
  * Modified seating
  * Use of quiet area
  * Physical exercise-(think about what can be done in the room)

* What Else Can You Do?
* Things to think about when approaching a child who is dysregulated:

  * **Regulate, Relate, Reason**
  
  "Co-regulate-make sure you are calm-many dysregulated children are operating from the limbic part of the brain that focuses on non-verbal communication (they can read your mood)"

* Adult proximity to the child
* Size of adult and size of child
* Body position
* Facial expression
* Language
* Location of child in the room or activity
* Safety

* Other Considerations
Brain Break
*https://www.youtube.com/watch?v=tSUw2hk0Vgs

*Brain Break Link*
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