“Reshaping” SOCIAL EMOTIONAL DEVELOPMENT

HOW EARLY INTERVENTION CAN AFFECT THE OUTCOME

Learning Objectives

- Participants will increase their knowledge regarding environmental risk factors for developmental delay
- Participants will gain knowledge regarding brain development as it relates to children exposed to trauma and other risk factors
- Participants will learn evidence based strategies for working with children and families affected by trauma

How it all begins……..


Social Emotional Development:

- “Healthy social-emotional development entails the ability to form satisfying, trusting relationships with others, play, communicate, learn, face challenges, and experience and handle a full range of emotions” (Zero to Three)
- Foundations for all areas of learning—learning to navigate the world and build relationships
- Home visiting relationships allows to facilitate trust, model appropriate boundaries and teach interpersonal skills
- Goal: attachment “Secure Home Base”

Brain Facts

- Brains are genetically predisposed to certain things; our experiences & interactions shape how those predispositions are expressed
- By the age of 3, brains are 80% the size of the adult brain (90% by age 5). This growth is dependent upon stimulation in each area of the brain
- Babies are predisposed to forming an attachment to the primary caregiver, if the caregiver is unresponsive/threatening, attachment is disrupted & the child’s ability to form meaningful relationships during life has been impaired.

Our developing brains

- Neuron: raw material of the brain, nerve cell
- Dendrites: neuron structure that receives information
- Synapses: connections amongst neurons/dendrites
- Myelination: insulates mature brain cells, ensures clear communication through synapses
- Pruning: elimination of synapses, use it or lose it
- Brainstem & Midbrain: govern autonomic functions; first area to develop—breathing, eating, and elimination (air traffic control)
What’s happening?

- As the infant brain develops, pathways (synapses) are formed based on the experiences of the child. The brain then adapts to these experiences using those pathways to predict the world around them (serve and return).
- Little stimulation causes fewer pathways to form and neuron production is slowed, resulting in significantly smaller brains.
- Pruning refers to “use it or lose it” - the brain begins to rid itself of synapses that are not used frequently. Those used frequently, become stronger and more complex based on experiences.

Trauma

- **Complex Trauma**: children’s exposure to multiple or prolonged adverse events that impact their development. Typically, complex trauma exposure involves the child experiencing or witnessing multiple or prolonged occurrence of child maltreatment or child neglect, physical and sexual abuse, or chronic stress—typically begins in early childhood, and occurs within the primary caregiving system.
- **Early Childhood Trauma**: traumatic experiences that occur to children aged 0-6. These traumas can be the result of intentional violence—such as child physical or sexual abuse, neglect, maltreatment, or the result of natural disaster, accidents, or war. Young children also may experience traumatic stress in response to environmental changes or the sudden loss of a parent/caregiver.

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- **Ongoing & Chronic**
  - Parental criticism
  - Neglect
  - Addiction
  - Mental illness
  - Multiple (unhappy) moves before age 3 [24]
  - Severe medical condition or pregnancy/delivery
  - Change in caregivers/multiple caregivers
  - Poverty
  - Social isolation/minimal support
  - Financial constraints

What Kind of Trauma?

- **Ryleigh**: Second born, unexpected
  - Family lost jobs/housing during pregnancy
  - Lived with unfamiliar adults during pregnancy/delivery
  - Third pregnancy shortly after Ryleigh was born - medical difficulty during pregnancy and after delivery
  - Mom depressed, unattached to Ryleigh during first few years

Different Trauma?

- **Tucker**: Meth exposure in utero
  - Removed at birth
  - No contact w/ bio family
  - Placed in foster care
  - Fussy/difficult
  - Overstimulated
  - Feeding difficulty
  - Busy home. 3 older “high maintenance” siblings
Effects of Trauma
- The brain produces two hormones (Serotonin & Cortisol) in response to the "fight or flight"
- Serotonin is released in response to “good” feelings
- Cortisol is produced when the body responds to threats and becomes “on alert”
- Constant production of Cortisol alters the brains’ neurochemical balance and the body’s natural reactions to normal stimuli in the environment (based on the perceived threat)

What Can Happen?
- Chronic Stress/Trauma: chronic activation of the HPA (Hypothalamus-Pituitary-Adrenal) axis
- Hyperarousal: can present as a learning delay or ADHD when in reality, the baseline for arousal is altered, causing the body to constantly be “on alert”
- Disrupted Attachment: early attachment provides the foundation for learning. Children learn best when they feel safe, calm and protected.

What can we do?
- All research on brain development has proven that environment plays a significant role in development
- Provide consistent replacement experiences, retraining the brain to its new, safe, nurturing and predictable environment
- Educate caregivers about possible side effects that any trauma could have caused and help them understand these effects
- Discuss with parents their own childhood experiences that could influence their parenting
- Understanding where behaviors are coming from helps develop more meaningful and efficient interventions
- Establish predictable, daily routines

The power of routines
- Predictability allows children to see the world around them as “safe”
- Establish/maintain attachment with primary caregiver and child
- Caregiver is viewed as “in control”- informing the child of changes ahead of time
- Age appropriate opportunities for decision making
- Clear & logical limits

Replacement experiences
- The brain uses the pathways that are most utilized, negative or positive
- During any interaction/environment, the brain resorts to using these pathways, responding how it knows to respond
- New experiences and responses allow the brain to begin to “reshape” it’s pathways
- The more often these opportunities are provided, the more often the brain is able to replace it’s existing memories
What We Need

- "Secure Home Base"
- "Pruning"—use it or lose it
- Serotonin-released with "good feelings"
- Cortisol-released during "fight or flight"

Take Home Messages

- Replacement experiences
- Routines
- Predictability

references

- Zero to Three
- Child Traumatic Stress Network
- AlbertaFamilyWellness.org
- Promoting First Relationships