IMPACT OF ADVERSITY/TRAUMA ON BRAIN AND BIOLOGY

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Group 6
OBJECTIVES

• Learn about brain basics
• Learn about the impact of trauma on the brain & development
• Learn about the brain’s response to stress and traumatic experiences
• Understand the nervous system
BRAIN BASICS

• The Amazing Brain- Page 3: Understanding the Building Blocks of My Brain
  • Linda Burgess Chamberlain, PhD, MPH

• The rest of the booklet can be used as a resource for parents to assist with healthy development.
The Limbic Area: Amygdala

- The amygdala is the appraisal system of the brain.
  - Signals rest of nervous system when there is a threat
  - It creates templates from highly charged emotional memories
    - Positive memories
    - Negative memories
HOW BRAINS ARE BUILT
ELEPHANT
GARDEN
ALLIGATOR
AUTOMOBILE
RAILROAD
SATISFACTORY
FOUNDATION
Survival Mode: Fight/Flight/Freeze

Frontal lobe (prefrontal cortex) goes offline
Limbic system / mid and lower brain functions take over

Learning/Thinking Brain (Prefrontal Cortex)

Survival/Emotion Brain (Limbic System)
SURVIVAL RESPONSES

• FIGHT

• FLIGHT

• FREEZE
From Peter Levine’s Somatic Experiencing work and Dan Siegel’s concept of the window of tolerance.
**Sympathetic Nervous System**
Activated from threatening stressors

**Parasympathetic Nervous System**
Activates the Relaxation response
QUESTIONS?