Research-Based Trauma-Responsive Education Practices: Research Perspective

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OLDER CHILDREN - High School Sophomores and Seniors

Washington School Classroom (30 Students)
Adverse Childhood Experiences (ACEs)

- 6 students with no ACE
- 5 students with 1 ACE
- 6 students with 2 ACEs
- 3 students with 3 ACEs
- 7 students with 4 or 5 ACEs
- 3 students with 6 or more ACEs

- 58% (17) students with no exposure to physical abuse or adult to adult violence
- 29% (9) of students exposed to physical abuse or adult to adult violence
- 13% (4) of students exposed to physical abuse and adult to adult violence

Population Average

- 20% are ACE-less
- 37% have ≤1 ACE
- 63% ≥2 ACEs
- 42% DV or PA
- 33.3% ≥4 ACEs

Domestic violence: DV / Physical abuse: PA

SOURCE: https://aces too high.com/
ACE Indicators Among Delinquents

Males:
• 3.1% reported no ACEs.
• 71% reported ≥ 3.
• 28% reported ≥ 5.
• Average composite score: 3.48

Females:
• 1.8% reported no ACEs.
• 80% reported ≥3.
• 46% reported ≥5.
• Average composite score: 4.29

Percent of Students with One or More Academic Concerns by ACE Exposure

<table>
<thead>
<tr>
<th>Percent of Students with Academic Problems</th>
<th>No Known Adverse Events</th>
<th>One Reported Adverse Event</th>
<th>Two Reported Adverse Events</th>
<th>Three or more Adverse Events</th>
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</thead>
<tbody>
<tr>
<td>One or More Academic Concerns</td>
<td>34%</td>
<td>54%</td>
<td>71%</td>
<td>80%</td>
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</tbody>
</table>

SOURCE: https://acestoohigh.com/
Significant Adversity Impairs Development in the First Three Years

The Stress Response Cycle

Event Seen as Threat, Adrenaline & Cortisol Released

Fight / Flight Response Activated

Threat Removed, Acetylcholine released

Calm State

Adrenaline & Cortisol = Increased Heart Rate & Respiration, Immune System & Frontal Lobes Suppressed
### Sustained Adversity/Complex Trauma

#### Affective Dysregulation
- Low distress tolerance
- Mood swings
- Hyperarousal
- Dissociation
- Attachment difficulties

#### Cognitive Dysregulation
- Verbal deficits
- Executive dysfunction
- Attention problems
- Learning deficits
- Faulty schemas

#### Behavioral Dysregulation
- Disorganized
- Relational aggression
- Physical outbursts
- Tantrums
- Hyperactivity
Other Contributors

- Poverty, food insecurity
- Prejudice ("-isms")
- Institutional racism
  - Disproportionate minority contact
  - School-to-prison pipeline
- Bullying (not just about peers!)
- Losses
- Sleep deprivation
Structural Brain Imaging in Early-Onset Persistently Delinquent Boys
Structural Magnetic Resonance Imaging

Probabilistic Segmentation

Hippocampus
Cumulative trauma, adversity & grief impact the left inferior frontal gyrus.
Early-Onset Persistent Delinquent & Control Boys

(A) Left hippocampal volume  
(B) Left pars opercularis surface area  
(C) Left supramarginal gyrus surface area

all \( p<0.05 \), and accounts for intracranial vault size
MRI Findings: Delinquent boys

- Smaller intracranial vaults $\rightarrow$ worse performance intellectual abilities (block design, matrices)
- Altered white matter microstructures $\rightarrow$ worse verbal intellectual abilities (vocabulary, similarities)
- ↓ total gray matter
- ↓ surface area in the pars opercularis correlated with poor auditory processing
- ↓ cortical folding in frontal areas, especially in left pars orbitalis
Human Brain Development
Neural Connections for Different Functions Develop Sequentially

Sensory Pathways (Vision, Hearing)
Language
Higher Cognitive Function

FIRST YEAR
Birth (Months) (Years)

Trauma-Responsive Schools
“Trauma Informed”

Trauma-Informed Approaches

- **Not** necessarily a service or program. **Not** specifically designed to *treat symptoms* related to sexual or physical abuse or other trauma. *A way of interacting* that is informed about, and sensitive to, trauma-related issues present in survivors.

- Understanding triggers, suicide response procedures in place, and so on, VERSUS passive-aggressive interactions, loud/booming voices, or “dropping bombs”

Trauma-Informed Systems

- Systems in which all components of a given service system have been reconsidered and evaluated in light of a basic understanding of the role that violence plays in the lives of people with mental health issues and addictions (Harris & Fallot, 2001).

Triggers
Remember....
IT’S NOT ABOUT YOU.

SERIOUSLY!! Don’t personalize.
It's all fun and games until someone figures out the function of your behavior.
It’s Not Too Late!

• Delays, not necessarily “caps”
• Cognitive development continues into the 30s
• Relational strategies work for ALL students
• Authenticity
• You are your own best resources: tag out, consult
• Trauma informed practices improve learning for everyone, not only adversity exposed students
• We are in this TOGETHER
Thank you!
Questions?