Physiological, Sensory and Behavioral Manifestations of Trauma in Abused and Neglected Children

By
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Southwest Michigan Children’s Trauma Assessment Center

Provides comprehensive/transdisciplinary assessments on children with identified histories of trauma exposure and/or suspicion of prenatal exposure to alcohol

To assess and understand the impact of trauma on developmental Competencies
# Placement at Time of Assessment

(n=1162)

<table>
<thead>
<tr>
<th>Placement</th>
<th>n, Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Parent</td>
<td>206 (18%)</td>
</tr>
<tr>
<td>Foster Care</td>
<td>636 (55%)</td>
</tr>
<tr>
<td>Relative</td>
<td>246 (21%)</td>
</tr>
<tr>
<td>Residential</td>
<td>74 (6%)</td>
</tr>
</tbody>
</table>
Exposure to Potentially Traumatic Events

Number of Types of Maltreatment Events (n=527)

- None: 3%
- One: 11%
- Two: 32%
- Three: 31%
- Four or more: 23%
Number of types of maltreatment events and PTSD diagnosis (n=289) \( p=.000 \)

<table>
<thead>
<tr>
<th>Number of Types of Maltreatment</th>
<th>No PTSD Diagnosis</th>
<th>PTSD Diagnosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>0 or 1</td>
<td>27 (75%)</td>
<td>9 (25%)</td>
</tr>
<tr>
<td>2</td>
<td>73 (78%)</td>
<td>21 (22%)</td>
</tr>
<tr>
<td>3 or more</td>
<td>83 (52%)</td>
<td>76 (48%)</td>
</tr>
</tbody>
</table>
Affective or Physiological Dysregulation

- Impaired developmental achievement related to arousal regulation:
  - Mood
  - Bodily Functions
  - Diminished awareness of emotional and behavioral states
  - Difficulty describing emotional or bodily states
Screening Children across Systems = Community Awareness

Total Number of Students = 687
Academic Problems

More Academic Problems

Increased Exposure

Exposures
- None or 1
- 2 or 3
- 4 or 5
- 6 or 7
- 8 or 9

Total Number of Students = 687

NCTSN
The National Child Traumatic Stress Network
Attentional and Behavioral Regulation:

Impaired ability to sustain attention, learn, or coping with stress
Receptive Language Functioning
n=813

- Strength: 4%
- No Problem: 10%
- Mild Problem: 15%
- Moderate Problem: 21%
- Major Problem: 51%
Memory Functioning
n=813

- Strength: 3%
- No Problem: 6%
- Mild Problem: 10%
- Moderate Problem: 18%
- Major Problem: 64%
Sequential Functioning
n=813

- Strength: 1%
- No Problem: 12%
- Mild Problem: 16%
- Moderate Problem: 21%
- Major Problem: 49%
## Prevalence of SMD Among Children with a History of Trauma

### Short Sensory Profile (38 items)

<table>
<thead>
<tr>
<th>Factor</th>
<th>Probable</th>
<th>Difference</th>
<th>Definite</th>
<th>Total %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tactile Sensitivity</td>
<td>16</td>
<td></td>
<td>31</td>
<td>47</td>
</tr>
<tr>
<td>Taste/Smell Sensitivity</td>
<td>13</td>
<td></td>
<td>12</td>
<td>25</td>
</tr>
<tr>
<td>Movement Sensitivity</td>
<td>14</td>
<td></td>
<td>16</td>
<td>30</td>
</tr>
<tr>
<td>Sensory Seeking</td>
<td>16</td>
<td></td>
<td>54</td>
<td><strong>70</strong></td>
</tr>
<tr>
<td>Auditory Filtering</td>
<td>16</td>
<td></td>
<td>53</td>
<td><strong>69</strong></td>
</tr>
<tr>
<td>Visual/Auditory</td>
<td>12</td>
<td></td>
<td>16</td>
<td>28</td>
</tr>
<tr>
<td><strong>TOTAL SCORE</strong></td>
<td><strong>20</strong></td>
<td></td>
<td><strong>40</strong></td>
<td><strong>60</strong></td>
</tr>
</tbody>
</table>

*N=293 children 3-10 years*
Alexithymia

A Communication Disorder that impairs the ability to identify and express emotional states with language.
Identification and expression of feelings

**Alexithymia – Scale of 0 – 14, according to traumatic exposure (n=204)**

<table>
<thead>
<tr>
<th></th>
<th>N</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>None or Mild Traumatic Exposure</strong></td>
<td>62</td>
<td>6.81</td>
</tr>
<tr>
<td><strong>Moderate to Significant Traumatic Exposure</strong></td>
<td>142</td>
<td>8.37</td>
</tr>
</tbody>
</table>
Alexithymia – Scale of 0 – 14, with determined significant traumatization and PTSD diagnosis (n=188)

<table>
<thead>
<tr>
<th>Significant Traumatization</th>
<th>N</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>No PTSD</td>
<td>105</td>
<td>7.74</td>
</tr>
<tr>
<td>Diagnosis of PTSD</td>
<td>83</td>
<td>9.22</td>
</tr>
</tbody>
</table>

Moderate Alexithymia 4-8
High Alexithymia 9-14

Based on ASC (Fukunishi et al, 1998)
Emotional/Behavioral Regulation and Traumatic Exposure
Child Behavioral Checklist for Children

One type of Maltreatment

\( N = 13 \), Total = 121
Mean (SD)

- Statistical significance at the .01 level for “Thought Problems” (72.92)

- Clinical Significance with:
  - “Inattention” (74.00),
  - “Aggression” (70.00)
  - “Total” (72.46)

- Subclinical but significant with:
  - “Withdrawn/depressed” (66.69)
  - “Social Problems” (68.54)
  - “Rule Breaking” (66.67)
  - “Internalized Behavior” (66.00)
  - “Externalized Behavior” (69.77)

(Richardson, M; Henry, J; Black-Pond, C; Sloane, M; 2008)
Emotional/Behavioral Regulation and Traumatic Exposure
Child Behavioral Checklist for Children

Two Types

N = 41, Total N = 121
Mean (SD)

- Subclinical but significant with:
  - “Inattention” (68.95)
  - “Aggression” (68.39)
  - “Externalized Behavior” (66.34)
  - “Total Score” (65.34)

(Richardson, M; Henry, J; Black-Pond, C; Sloane, M; 2008)
Emotional/Behavioral Regulation and Traumatic Exposure
Child Behavioral Checklist for Children

**Three or more types**
N = 67   Total N = 121
Mean (SD)

• Clinical Significance with “Inattention” (68.45)

• Subclinical but significant with:
  “Social Problems” (65.73)
  “Aggression” (68.18)
  “Rule Breaking” (66.61)
  “Externalized Behavior” (66.90)
  “Total Score” (66.64)

(Richardson, M; Henry, J; Black-Pond, C; Sloane, M; 2008)
## Frequencies of Childhood Diagnosis

<table>
<thead>
<tr>
<th>Diagnosis</th>
<th>Number of Kids</th>
<th>Number w/diag</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mood Dis</td>
<td>854</td>
<td>273</td>
<td>32%</td>
</tr>
<tr>
<td>PTSD</td>
<td>741</td>
<td>235</td>
<td>32%</td>
</tr>
<tr>
<td>ADHD</td>
<td>954</td>
<td>552</td>
<td>54%</td>
</tr>
<tr>
<td>Anxiety Dis</td>
<td>700</td>
<td>110</td>
<td>16%</td>
</tr>
<tr>
<td>Depression</td>
<td>687</td>
<td>38</td>
<td>5%</td>
</tr>
<tr>
<td>Bipolar</td>
<td>97</td>
<td>13</td>
<td>37%</td>
</tr>
</tbody>
</table>
Diagnostic Quandaries

Lack of findings related to PTSD (and other childhood disorders) and the range of impairment in developmental competencies necessary for:

• managing stress,
• learning
• relating to others
• Achieving a positive working model of the world and self

Results in need for diagnosis that addresses impairments and leads to/guides trauma informed interventions.

Developmental Trauma Disorder
Continuing Medical Education Commercial Disclosure Requirement

I, Connie Black-Pond, have no commercial relationships to disclose.