Trauma Care in Children and Youth

Cecilia Margret MD, PhD, MPH
Leavenworth, WA
May 4, 2019
Case

- Bella is a 16 yr old girl who comes to PCP office with school avoidance. She has been caught twice in school, hiding in the bathroom drinking. Mother reports recent loss of a close relative and two events when she had expressed suicidal ideas passively. Once she was found near a cemetery with SI and another time, overdosed a handful of OTC pills. Mother reports history of recent sexual assault and ongoing court evaluation. Patient unwilling to engage.
Discussion

- What screening tools could the PCP office use?
- What are initial intervention(s) that a Pediatrician may/must address in the first visit?
- If you were consulting with a psychiatrist by phone what would you add as PLANS critical for short term and long term?
- When will you consider referral to mental health services?
- The Medical Director of Pediatric Clinic approaches you, the consulting psychiatrist to think about ACES (Adverse childhood experiences study) and potential approaches to develop trauma informed care. How do you envision this?
Epidemiology

• 1 in 8 children/youth suffer some form of trauma by 18 years of age (National Child Abuse and neglect Data System (NCANDS), Wildeman 2014).
• African American race, female gender (for sexual abuse alone), school-drop outs, lower socioeconomic status, low educational background of families, single parents with live in partners are common risks.
• Children with developmental disabilities are high risk, but reducing because of other systems of care for supervision.
• Caregivers risks are gender (females more for physical violence), unemployed status and co-occurring substance use and or mental health conditions (Leetch et al 2015).
DSM V

- Event
- Intrusion
- Avoidance
- Alterations of mood or cognition
- Altered arousal
Case discussion (symptom highlights)

- Delia is a 12 yo girl brought in by mother at school’s request.
- Bright, but not meeting academic goals this year. Opposition to teachers and irritable with peers.
- At home, she often challenges parental authority. Over past 6 months, there is a notable change to her baseline.
- Avoids discussion of emotions, anger towards mother when she brings in emotional coaching or regulation skills for discussion.
- History of foster care participation at 2 yo for 9 months. Mother has maintained sobriety.
DSM V criteria for above 6 yr

- **CRITERIA A : EVENT**
  - Direct exposure,
  - Witnessing the trauma,
  - Learning that a relative or close friend was exposed to a trauma,
  - Indirect exposure to aversive details of the trauma

**CRITERIA B - INTRUSION**
- Unwanted upsetting memories
- Nightmares
- Flashbacks
- Emotional distress after exposure to traumatic reminders
- Physical reactivity after exposure to traumatic reminders
  - 1 required

**CRITERIA C - AVOIDANCE**
- Trauma-related thoughts or feelings
- Trauma-related reminders
  - 1 required

**CRITERIA D - NEGATIVE TH/E**
- Inability to recall key features of the trauma
- Overly negative thoughts and assumptions about oneself or the world
- Exaggerated blame of self or others for causing the trauma
- Negative affect
- Decreased interest in activities
- Feeling isolated
- Difficulty experiencing positive affect
  - 2 required

**CRITERIA E - HYPERAROUSAL**
- Irritability or aggression
- Risky or destructive behavior
- Hypervigilance
- Heightened startle reaction
- Difficulty concentrating
- Difficulty sleeping
  - 2 required
DSM V CRITERIA for 6 and under

- CRITERIA A : EVENT
  - Direct exposure,
  - Witnessing the trauma, in primary caregiver,
  - Learning that a PRIMARY caregiver was exposed to a trauma,
  - Indirect exposure to aversive details of the trauma

CRITERIA B – INTRUSION
- Unwanted upsetting memories
- Nightmares
- Flashbacks
- Emotional distress after exposure to traumatic reminders
- Physical reactivity after exposure to traumatic reminders
- 1 required

CRITERIA C – AVOIDANCE
- Trauma-related thoughts or feelings
- Trauma-related reminders
- 1 of C or D required

CRITERIA D – NEGATIVE TH/E
- Negative emotional states
- Socially withdrawn
- Marked diminished interest
- Persistent reduction in positive affect
- 1 of C or D required

CRITERIA E – HYPERAROUSAL
- Irritability or aggression
- Hypervigilance
- Heightened startle reaction
- Difficulty concentrating
- Difficulty sleeping
- 2 required

At least for 1 month SX, sometimes takes 6 months
Functional impairment
Primary trigger is Trauma
Neuroscience

- Executive function – pre frontal cortex
- Formation and storage of memories – hippocampus
- Emotional processing – amygdala
- Self injury - Insula
- Limbic – hypothalamic pituitary axis
### Table 1. Child’s Response to Trauma: Bodily Functions

<table>
<thead>
<tr>
<th>SYMPTOM(S)</th>
<th>FUNCTION</th>
<th>CENTRAL CAUSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Difficulty falling asleep</td>
<td>Sleeping</td>
<td>Stimulation of reticular activating system</td>
</tr>
<tr>
<td>Difficulty staying asleep</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nightmares</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Rapid eating</td>
<td>Eating</td>
<td>Inhibition of satiety center, anxiety</td>
</tr>
<tr>
<td>Lack of satiety</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Food hoarding</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Loss of appetite</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other eating disorders</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constipation</td>
<td>Toileting</td>
<td>Increased sympathetic tone, increased catecholamines</td>
</tr>
<tr>
<td>Encopresis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Enuresis</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### Table 2. Child’s Response to Trauma: Misunderstood Causes

<table>
<thead>
<tr>
<th>RESPONSE</th>
<th>MORE COMMON IN</th>
<th>MISUNDERSTOOD CAUSE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Detachment</td>
<td>Females</td>
<td>Depression</td>
</tr>
<tr>
<td>Numbing</td>
<td>Young children</td>
<td>ADHD inattentive type</td>
</tr>
<tr>
<td>Compliance</td>
<td>Children with ongoing trauma/pain</td>
<td>Developmental delay</td>
</tr>
<tr>
<td>Fantasy</td>
<td>Children unable to defend themselves</td>
<td></td>
</tr>
<tr>
<td>Hypervigilance</td>
<td>Males</td>
<td>ADHD</td>
</tr>
<tr>
<td>Aggression</td>
<td>Older children</td>
<td>ODD</td>
</tr>
<tr>
<td>Anxiety</td>
<td>Witnesses to violence</td>
<td>Conduct disorder</td>
</tr>
<tr>
<td>Exaggerated response</td>
<td>People able to fight or flee</td>
<td>Bipolar disorder</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Anger management difficulties</td>
</tr>
<tr>
<td>Age</td>
<td>Effect on Working Memory</td>
<td>Effect on Inhibitory Control</td>
</tr>
<tr>
<td>----------------------</td>
<td>----------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Infant / toddler / pre-schooler</td>
<td>Difficulty acquiring developmental milestones</td>
<td>• Frequent severe tantrums</td>
</tr>
<tr>
<td></td>
<td>• Aggressive with other children</td>
<td>• Difficulty with transitions</td>
</tr>
<tr>
<td>School-aged child</td>
<td>• Difficulty with school skill acquisition</td>
<td>Frequently in trouble at school and with peers for fighting and disrupting</td>
</tr>
<tr>
<td></td>
<td>• Losing details can lead to confabulation, viewed by others as lying</td>
<td></td>
</tr>
<tr>
<td>Adolescent</td>
<td>• Difficulty keeping up with material as academics advance</td>
<td>• Impulsive actions which can threaten health and well-being</td>
</tr>
<tr>
<td></td>
<td>• Trouble keeping school work and home life organized</td>
<td>• Actions can lead to involvement with law enforcement and increasingly serious consequences</td>
</tr>
<tr>
<td></td>
<td>• Confabulation increasingly interpreted by others as integrity issue</td>
<td></td>
</tr>
</tbody>
</table>
Natural Course of disorder

• Most recover by natural resilience
  • Over 50% recover and not meet criteria for PTSD (Hilder 2016)

• Predictors for maintenance of symptoms
  • Female gender, peritraumatic dissociation, lower socio economic status
  • Unstable social/family supports
  • Loss of family
  • Involvement in legal/child welfare systems

• Life time burden- 9% prevalence
  • Continued functional impairments, psychiatric comorbidities, polypharmacy, and increased health care costs

Dulcan 2017, PAL conference 2015
Comorbidities

- Depression
- Anxiety (Separation Anxiety)
- Substance use
- Self injurious behaviors
- Sleep disturbances
When to treat?

• What is monitoring?
• Timeline?
• Acute versus Chronic stressors
• Individual resilience/adaptation skills
• Environmental supports
• Psychiatric symptom(s) emergence
### Table 2
Standardized measures for PTSD

<table>
<thead>
<tr>
<th>Name</th>
<th>Ages</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trauma Symptom Checklist for Children (TSC-C)²³</td>
<td>8-16 y, 3rd-grade reading</td>
<td><a href="http://www.parinc.com">www.parinc.com</a></td>
</tr>
<tr>
<td></td>
<td>level</td>
<td></td>
</tr>
<tr>
<td>UCLA PTSD Reaction Index²⁴</td>
<td>6-18 y, 7th-grade reading</td>
<td><a href="http://oip.ucla.edu/ptsd-reaction-index-instrument-licenses">http://oip.ucla.edu/ptsd-reaction-index-instrument-licenses</a></td>
</tr>
<tr>
<td></td>
<td>level</td>
<td></td>
</tr>
<tr>
<td>Juvenile Victimization Questionnaire²⁵</td>
<td>8-17 y</td>
<td><a href="http://www.unh.edu/ccrc/jvq/available_versions.html">www.unh.edu/ccrc/jvq/available_versions.html</a></td>
</tr>
<tr>
<td>Child PTSD Symptom Scale (CPSS)²⁶</td>
<td>8-18 y</td>
<td><a href="http://www.aacap.org/App_Themes/AACAP/docs/resource_centers/resources/misc/child_ptsd_symptom_scale.pdf">www.aacap.org/App_Themes/AACAP/docs/resource_centers/resources/misc/child_ptsd_symptom_scale.pdf</a></td>
</tr>
</tbody>
</table>

SCARED PTSD - PAL guide

Simmons et al 2017, PAL guide
Screen for Child Anxiety Related Disorders (SCARED) Traumatic Stress Disorder Scale

Name: ____________________________  Today's Date: __________________________

Directions: Below is a list of sentences that describe how people feel. Read each and decide if it is “Not True or Hardly Ever True,” “Somewhat True or Sometimes True” or “Very True or Often True” for you. Then for each sentence, choose the answer that seems to describe you for the last 3 months.

<table>
<thead>
<tr>
<th></th>
<th>0 Not True or Hardly Ever True</th>
<th>1 Somewhat True or Sometimes True</th>
<th>2 Very True or Often True</th>
</tr>
</thead>
<tbody>
<tr>
<td>I have scary dreams about a very bad thing that once happened to me.</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I try not to think about a very bad thing that once happened to me.</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I get scared when I think back on a very bad thing that once happened to me.</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>I keep thinking about a very bad thing that once happened to me, even when I don’t want to think about it.</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

Score: __________________________
First line for treatment for PTSD in children?

• A) fluoxetine
• B) TF-CBT (Trauma Focused-CBT)
• C) AF-CBT (Alternatives for Families-CBT)
• D) Parent Child Psychotherapy
Management

- Safety of the child
- Safety of the environment
- Parental availability/coping
- Anticipatory guidance
- Individual adaptation/resilience
- Cognitive support
- Emotional regulation/traumatic experience
- Medication for comorbidities
- Mental health and stability of family
Prevention

- No GOLD STANDARD for preventive methods of PTSD
- Embed interventions in child serving programs helps widen scope

- Training Pediatric medical providers
  - Trauma histories and symptoms
  - Screening
  - Anticipatory guidance to families
  - Referral criteria and resources

Marsac et al 2018; Indicated and selective preventive interventions
## Table 5. Therapies for the Traumatized Child

<table>
<thead>
<tr>
<th>AGE</th>
<th>THERAPY</th>
<th>GOALS</th>
</tr>
</thead>
</table>
| Younger child| • Parent-Child Interaction Therapy (PCIT) (appropriate for children 2–12 y)  
              • Child-Parent Psychotherapy (CPP) (appropriate for newborns, infants, and children 0–6 y) | • PCIT works with caregivers and children to align appropriate parental response to child behaviors.  
              • CPP is a dyadic intervention that targets the effect of trauma on the child-parent relationship and how the parent can provide emotional safety for the child. |
### Table 5. Therapies for the Traumatized Child

<table>
<thead>
<tr>
<th>Older children</th>
<th>PCIT (appropriate for children 2–12 y)</th>
<th>Trauma-Focused Cognitive-Behavioral Therapy (TF-CBT) (for children ≥5 y)</th>
<th>PCIT works with caregivers and children to align appropriate parental response to child behaviors.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>• PCIT</td>
<td>• TF-CBT trains children and families in</td>
<td>• Relaxation techniques</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Relaxation techniques</td>
<td>• Skills and language to access emotion</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Relaxation techniques</td>
<td>• Creating a trauma narrative</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Relaxation techniques</td>
<td>• Then child is guided to create a trauma narrative. Child develops/writes a story about what happened to him/her.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Relaxation techniques</td>
<td>• When child is able to tell or read this story to caregiver, it indicates trauma no longer defines child but is instead a story of what happened to child, having lost its power to continue to harm.</td>
</tr>
</tbody>
</table>
## Psychotherapies

<table>
<thead>
<tr>
<th>Complex trauma or poly-victimization</th>
<th>Attachment, Self-Regulation, and Competency (ARC) (appropriate for children and adolescents 2–21 y)</th>
<th>ARC can include individual, group, and family treatment; parent workshops; milieu/systems intervention; and home-based prevention programs. Specifically targets the child’s surrounding system (eg, family, services, communities).</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Integrative Treatment of Complex Trauma for Children and Adolescents (ITCT-C, ITCT-A) (appropriate for children and adolescents 2–21 y)</td>
<td>ITCT-C is particularly adapted for families who are economically disadvantaged and culturally diverse. Can include multiple modalities (eg, individual, family, play).</td>
</tr>
<tr>
<td></td>
<td>Trauma Systems Therapy (TST) (appropriate for children and adolescents 6–19 y)</td>
<td>TST is focused on children and adolescents who are having difficulty regulating their emotions. Can be used for children who have a wide range of traumatic experiences and for a variety of cultures.</td>
</tr>
<tr>
<td></td>
<td>Trauma Affect Regulation: Guide for Education and Therapy (TARGET) (appropriate for children and adolescents ≥10 y)</td>
<td>TARGET is focused on children and caregivers who are experiencing traumatic stress, particularly those involved with justice or child welfare systems.</td>
</tr>
</tbody>
</table>
Pharmacology

• Limited studies, limited evidence
• No FDA approved medications for PTSD in children and adolescents
• Consider only if need acute symptom reduction in severe PTSD, if comorbid disorder requires medication treatment, or if unsatisfactory response to psychotherapy
  • SSRI, Alpha Agonists, Propranolol

Dulcan et al 2017
Case

- Bella is a 16 yr old girl who comes to PCP office with school avoidance. She has been caught twice in school, hiding in the bathroom drinking. Mother reports recent loss of a close relative and two events when she had expressed suicidal ideas passively. Once she was found near a cemetery with SI and another time, overdosed a handful of OTC pills. Mother reports history of recent sexual assault and ongoing court evaluation. Patient unwilling to engage.
SCREEN for primary diagnosis and associated comorbidities (what are target symptoms and what more do we need for diagnoses?)

Assess RISKS - individual and environmental (Are there Self harm or aggression or impulse control issues (disruptive behaviors at school)?)

MANAGEMENT - refer for Therapy/Psychiatric care, as indicated, with psychosocial support at home, school and legal/CPS or DFS systems (what systems of care do you think may be involved for care?)

PRIORITIZE and MONITOR : Safety FIRST and then holding environment for ongoing care. CONSULT AS NEEDED (what will you prioritize and treat?)
Case discussion

- What more information do you look for?
- What are short term plans to consider as patient leave the first office visit?
- What are long term plans to consider?

- Discuss/Questions
Healing is a journey

Acceptance and change in one session?

Providing a holding environment
Resources

- Web sites for updated assessment and treatment information:
  - http://www.nctsn.org/
  - PAL guide/PAL Consultation
References

- Dulcan, Concise guide to Child and Adolescent Psychiatry DSM 5 editon, 2017
- Victor Carrion and Carl Weems, Neuroscience of Pediatric PTSD, Oxford 2017
- Brooks R. Keeshin, MD,a,b , Jeffrey R. Strawn, MD,b, Psychological and Pharmacologic Treatment of Youth with Posttraumatic Stress Disorder An Evidence-based Review, Child Adolesc Psychiatric Clin N Am 23 (2014) 399-411
- PAL conferences Bellingham 2015
- PAL guide