

GENERAL INFORMATION

<p><b>Introduction</b></p>	<p>The Care Process Model (CPM) for Pediatric Traumatic Stress is a brief screening and response protocol guiding the identification of, and response to, traumatic stress in children seen in healthcare and other pediatric settings, such as primary care clinics and Children’s Advocacy Centers (CACs).</p> <p>For screening, the CPM uses the Pediatric Traumatic Stress Screening Tool (PTSST), a 15-item questionnaire including two trauma exposure questions (recent and remote events), one suicide screening question (from the Patient Health Questionnaire for Adolescents, PHQ-A), and 12 traumatic stress symptom questions (the UCLA Brief Screen for Trauma and PTSD). For provider response, the CPM guides the following three key decisions: 1. Address any serious or mandated safety concerns (e.g., through mandated reporting for maltreatment), 2. Respond to any suicidality, and 3. Select the treatment approach based on screening responses and child functioning. An important goal of the CPM is to link children with traumatic stress with providers who can deliver trauma-focused, evidence-based assessment and treatment. The CPM also guides the use of psychoeducation and/or easy-to-teach approaches that target the most disruptive symptoms of traumatic stress.</p> <p>The CPM for Pediatric Traumatic Stress can be used by clinicians and non-clinicians.</p>
<p><b>Treatment Description</b></p>	<p><b>Acronym (abbreviation) for intervention:</b> CPM/CPM for Pediatric Traumatic Stress</p> <p><b>Number of administrations:</b> Typically 1-3</p> <p><b>Cost:</b> Free</p> <p><b>Copyrighted:</b> Yes</p> <p><b>Measure Type:</b> Screening and Response Protocol</p> <p><b>Information Provided:</b> Clinician and Non-Clinician Decision Support</p> <p><b>Domains Assessed:</b></p> <ul style="list-style-type: none"> <li>• Trauma Exposure</li> <li>• Suicidality/Self Harm</li> <li>• Traumatic Stress</li> <li>• Sleep Problems</li> <li>• Hyperarousal/Intrusive Symptoms</li> <li>• Avoidance/Negative Mood</li> <li>• Functional impairment</li> </ul> <p><b>Decision-making Supported:</b></p> <ul style="list-style-type: none"> <li>• Child Safety and Mandated Reporting</li> <li>• Suicide Risk Response</li> </ul>

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<p><b>Treatment Description cont'd</b></p>	<ul style="list-style-type: none"> <li>• Traumatic Stress Risk Response</li> <li>• Traumatic Stress Symptom Response</li> </ul>												
<p><b>Target Population</b></p>	<p><b>Age range:</b> 6 to 18</p> <p><b>Gender:</b> <input checked="" type="checkbox"/> Males <input checked="" type="checkbox"/> Females <input checked="" type="checkbox"/> Both</p> <p><b>Ethnic/Racial Group:</b> All</p> <p><b>Other cultural characteristics (e.g., SES, religion):</b></p> <p><b>Language(s):</b> English and Spanish</p> <p><b>Region (e.g., rural, urban):</b> All</p>												
<p><b>Administration</b></p>	<p><b>Number of items:</b> 15 (or 2 + 13 if used with branching logic)</p> <p><b>Average Time to Complete Screening Tool (min):</b> 1-3 minutes</p> <p><b>Average Time for CPM Decision-Making with Child/Family (min):</b> Varies by screening tool responses and setting</p> <table border="1" data-bbox="456 921 1448 1106"> <thead> <tr> <th></th> <th>Primary Care</th> <th>CAC</th> </tr> </thead> <tbody> <tr> <td><b>Negative for Trauma Exposure and Symptoms</b></td> <td>0 minutes</td> <td>5-10 minutes</td> </tr> <tr> <td><b>Positive for Trauma Exposure and Symptoms</b></td> <td>5-10 minutes</td> <td>10 minutes</td> </tr> <tr> <td><b>Positive for Trauma Exposure, Symptoms, and Suicidality</b></td> <td>5-10 minutes</td> <td>15 minutes</td> </tr> </tbody> </table> <p><b>Periodicity:</b> The CPM can be used as part of a universal screening process (meaning with all 6-18 year olds served) or in case finding for on-going mental health complaints or other concerns (meaning with select 6-18 year old's served). The Pediatric Traumatic Stress Screening Tool (PTSST) can be repeated as needed to monitor symptom change, treatment response, and/or the need to adjust treatment decision-making.</p> <p><b>Response Format:</b> The Pediatric Traumatic Stress Screening tool (PTSST) consists of 15 items:</p> <ul style="list-style-type: none"> <li>• 2 yes/no trauma exposure items, followed by open-ended description(s);</li> <li>• 1 suicide screening question with four response options regarding frequency (taken from the Patient Health Questionnaire for Adolescents, PHQ-A);</li> <li>• 12 traumatic stress symptom questions with five options regarding frequency (taken from the UCLA Brief Screen for Trauma and PTSD).</li> </ul> <p>The PTSST can be freely viewed and/or downloaded via the CPM (see links and citation information provided below). The CPM response protocol prompts pediatric providers to quickly review data provided by families on the PTSST and then complete the following responses:</p>		Primary Care	CAC	<b>Negative for Trauma Exposure and Symptoms</b>	0 minutes	5-10 minutes	<b>Positive for Trauma Exposure and Symptoms</b>	5-10 minutes	10 minutes	<b>Positive for Trauma Exposure, Symptoms, and Suicidality</b>	5-10 minutes	15 minutes
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<b>Negative for Trauma Exposure and Symptoms</b>	0 minutes	5-10 minutes											
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<p><b>Administration cont'd</b></p>	<ol style="list-style-type: none"> <li>1. <u>Address any Serious or Mandated Safety Concerns</u> (e.g., mandated reporting for maltreatment);</li> <li>2. <u>Respond to Any Suicidality</u> with the use of a standardized suicide risk assessment tool, such as the Columbia Suicide Severity Rating Scale (CSSRS), in order to differentiate passive versus active suicidality. Respond to suicide risk severity by providing anticipatory guidance, encouraging parent-child communication, teaching coping skills, developing a safety plan, referring to mental health therapy, and/or referring to crisis services (wherein higher risk prompts a more comprehensive and/or urgent response);</li> <li>3. <u>Select Treatment Approach</u> using the youth or parent's report of current traumatic stress symptoms on the PTSST. Score ranges and associated recommended intervention strategies include: <ul style="list-style-type: none"> <li>• <math>\leq 10</math> = a protective approach, including strengths-based guidance and continued monitoring (e.g., primary care);</li> <li>• 11-20 = a resilience-promoting approach, including a referral to community/integrated mental health for trauma-informed assessment and treatment, as well as teaching a skill to target the most disruptive symptoms of traumatic stress;</li> <li>• <math>\geq 21</math> = a restorative approach, including a referral to evidence-based trauma assessment and treatment, as well as teaching a skill to target the most disruptive symptoms of traumatic stress.</li> </ul> <p>(**Additional information such as signs of functional impairment, type and severity of trauma, or other risk factors, may raise the recommended approach level beyond what symptom-range data alone may suggest.**)</p> <p><b>Materials Needed:</b> Paper/Pencil or Secured Electronic Device</p> <p><b>Description of Form Options:</b> Various versions of the Pediatric Traumatic Stress Screening Tool (PTSST) are available to provide the best fit for child/family and setting needs. These include self-report (11 years and older) or <i>parent-report</i> (6-10 years) in English or Spanish; <i>low-risk population</i> (includes branching logic following the trauma exposure items) or high-risk population (no branching logic), and a combo-form with the PHQ-A.</p> </li> </ol>
<p><b>Clinical &amp; Anecdotal Evidence</b></p>	<p><b>Are you aware of any suggestion/evidence that this treatment may be harmful?</b>  <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Uncertain</p> <p><b>Extent to which cultural issues have been described in writings about this intervention</b> (scale of 1-5 where 1=not at all to 5=all the time). 2; The CPM narrative document includes descriptions as to how the CPM can be used with special populations, including that it can be culturally adapted.</p> <p><b>This intervention is being used on the basis of anecdotes and personal communications only (no writings) that suggest its value with this group.</b>  <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No</p>

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**Clinical & Anecdotal Evidence continued**

**Are there any anecdotes describing satisfaction with treatment, drop-out rates (e.g., quarterly/annual reports)?**  **Yes**  **No**

**If YES, please include citation:**

Please contact us for the citations as they were under review (primary care pilot and ED pilot) and in preparation (CAC pilot) at the time of preparing this Fact Sheet.

**Has this intervention been presented at scientific meetings?**  **Yes**  **No**

**If YES, please include citation(s) from last five presentations:**

Keeshin, B. (2020). A care process model for pediatric traumatic stress. From the panel (Gurwitch, R.), Innovative prevention practices after trauma: Increasing and expanding mental health resources to reach more and improve outcomes. *International Society for Traumatic Stress Studies Conference, 2020.*

Keeshin, B. on behalf of the PIPS Team. (2020). A care process model for pediatric traumatic stress. From the paper presentation session (Ahmadi, N.), Trauma-informed evidence-based screening procedures and early interventions for youth with PTSD. *American Academy of Child and Adolescent Psychiatry Annual Meeting 2020.*

Keeshin, B., Byrne, K., & Miller, E. (2020). Identification of suicidality among CAC evaluated youth. *Helper Society Annual Meeting 2020.*

Keeshin, B., & Tabet, T. (2020). Statewide process, local delivery: Screening and responding to traumatic stress and suicide. *National Children’s Alliance Leadership Conference 2020.*

Shepard, L., Byrne, K., & Keeshin, B. (2020). Connecting care across systems: A care process model for child traumatic stress. *San Diego International Conference on Child and Family Maltreatment 2020.*

Byrne, K., Campbell, K., Keeshin, B., & Shepard, L. (2019). Development and implementation of a brief screening and intervention care process model for child traumatic stress in children’s advocacy centers. *American Professional Society on the Abuse of Children (APSAC) Colloquium 2019.*

Keeshin, B. (2019). Identification of traumatic stress and suicidality among abused youth. *American Academy of Child and Adolescent Psychiatry Annual Meeting 2019.*

Keeshin, B., Byrne, K., & Shepard, L. (2018). Pediatric trauma: Practical approaches to the assessment of experiences and symptoms. *American Academy of Child and Adolescent Psychiatry Annual Meeting 2018.*

Keeshin, B. (2017). Opportunities for cross-system collaboration: The evaluation of trauma in children’s advocacy centers. *American Academy of Child and Adolescent Psychiatry Annual Meeting 2017.*

Keeshin, B. (2017). Integrated care and trauma: Choosing the right treatment for the right child at the right time. *American Academy of Child and Adolescent Psychiatry Annual Meeting 2017.*

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**Clinical & Anecdotal Evidence continued**

**Are there any general writings which describe the components of the intervention or how to administer it?**  Yes  No

**If YES, please include citation:**

The original CPM document: Intermountain Healthcare. Diagnosis and management of traumatic stress in pediatric patients (2020). Available at: <https://intermountainhealthcare.org/ckr-ext/Dcmnt?ncid=529796906> or at <https://utahpips.org/cpm> Accessed Oct 26, 2020.

Peer-reviewed article: Keeshin, B., Byrne, K., Thorn, B., & Shepard, L. (2020). Screening for trauma in pediatric primary care. *Current Psychiatry Reports*, 22(60), 1-8. doi: 10.1007/s11920-020-01183-y

**Has the intervention been replicated anywhere?**  Yes  No

- In over 7 pediatric primary care clinics in UT and WY
- In over 20 children’s advocacy centers/children’s justice center settings (CACs/CJCs) in UT
- In 4+ child abuse pediatric clinics in CO, MN, PA, and UT
- In 1 foster care clinic in OH
- In 1 pediatric hospital emergency department in UT

**Other evidence not included above:** The Pediatric Traumatic Stress Screening Tool (PTSST) and the CPM use validated measures or items from the Patient Health Questionnaire for Adolescents (PHQ-A), the Columbia Suicide Severity Rating Scale (CSSRS), and the UCLA Brief Screen. See the following citations for further information regarding their validity:

- PHQ-A item 9 and CSSRS: Na PJ, Yaramala SR, Kim JA, et al. The PHQ-9 Item 9 based screening for suicide risk: a validation study of the Patient Health Questionnaire (PHQ)–9 Item 9 with the Columbia Suicide Severity Rating Scale (C-SSRS). *J Affect Disord*. 2018;232:34-40. doi:10.1016/j.jad.2018.02.045
- The UCLA Brief Screen: Rolon-Arroyo B, Oosterhoff B, Layne CM, Steinberg AM, Pynoos RS, Kaplow JB. The UCLA PTSD Reaction Index for DSM-5 Brief Form: A Screening Tool for Trauma-Exposed Youth. *J Am Acad Child Adolesc Psychiatry*. Published online July 2019:S0890856719314339. doi:10.1016/j.jaac.2019.06.015

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Research Evidence	Sample Size (N) and Breakdown <i>(by gender, ethnicity, other cultural factors)</i>	Citation
<b>Pilot Trials/Feasibility Trials</b> <i>(w/o control groups)</i>	<b>N=3276</b> <b>By gender:</b> 2337 Female, 834 Male, 9 Trans/Nonbinary/Other <b>By ethnicity:</b> 401 Latinx and 276 Minority/Non-White	(in preparation)
	<b>N=1472</b> <b>By gender:</b> 783 (53.2%) Female <b>By ethnicity:</b> 1336 (90.8%) Majority/White and 136 (9.2%) Minority/Non-White	(under review)
<b>Studies Describing Modifications</b>	<b>N=30</b> <b>By gender:</b> 16 (53%) Female	(under review)
<b>Key Findings</b>	<p><b>Children’s Advocacy Centers (CACs)</b> – Screening for child traumatic stress and suicide in children’s advocacy centers is feasible and acceptable to CAC staff. Both mental health clinicians and non-clinicians are able to administer the Pediatric Traumatic Stress Screening Tool (PTSST), provide guidance to families in making important decisions to keep their children safe, and teach basic coping skills to deal with traumatic stress symptoms. The Pediatric Traumatic Stress Care Process Model is able to detect traumatic stress and suicidal ideation in high-risk populations. From the pilot study (N=2879):</p> <ul style="list-style-type: none"> <li>• 36% (n=1050) reported a potentially traumatic event(s) recently, 51% (n=1475) reported a potentially traumatic event(s) in the past, and 20% (n=603) reported recent and past trauma exposure.</li> <li>• Moderate and severe traumatic stress symptoms were identified in 29% and 48% of children, respectively.</li> </ul>	

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**Key findings cont'd**

- 44% (n=1044) of adolescents who completed screening endorsed thoughts of suicide or self-harm in the past two weeks, with youth with alleged sexual assault/abuse or physical abuse significantly more likely to indicate suicidal and self-harm ideation.
- There was no statistically significant difference in screener responses or staff decision-making between clinician and non-clinician administrators.
- 27% (n=788) of children screened received suicide prevention resources depending on severity of suicide risk. Resources included encouraging ongoing family communication, developing a safety plan, general mental health referral, or referral to the ER/crisis team.
- 74% (n=2132) of children received a referral for follow-up care, such as to a provider for trauma-specific evidence-based assessment and treatment, community mental health assessment and treatment, or primary care follow up and monitoring.
- 43% (n=1231) of children were referred to trauma-specific evidence-based assessment and treatment.

**Primary Care** – Use of a brief, validated screener adapted for well child visits, namely the Pediatric Traumatic Stress Screening Tool (PTSST), is feasible, acceptable, and successful in the identification of children with clinically important symptoms of childhood traumatic stress. From the pilot study (n=1472):

- One-third (32.5%) of completed screeners reflected a history of potentially traumatic event(s).
- Moderate and severe traumatic stress symptoms were identified in 10.7% and 5.2% of patients, respectively.
- The positive predictive and negative predictive values of potentially traumatic event(s) for moderate-to-severe traumatic stress were 38.9% and 95.2%, respectively.
- Moderate and severe traumatic stress after potentially traumatic event(s) were associated with 2.0 and 11.9 times higher risk of suicidality/self-harm compared to minimal traumatic stress.
- 71 (23.5%) dual-screened adolescents with the PHQ-A and PTSST reported moderate-to-severe symptoms of traumatic stress and 41 (13.6%) had clinically significant symptoms of depression. While over two-thirds (28/41, 68.3%) of adolescents with depressive symptoms reported a history of potentially traumatic event(s), 38/71 (53.5%) of adolescents with symptoms of traumatic stress had no evidence for depression on the PHQ-A ( $p < 0.001$ ), demonstrating the additive value of using the traumatic stress care process model in adolescents with and without concurrent depressive symptoms.

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<p><b>Outcomes</b></p>	<p><b>What assessments or measures are used as part of the intervention or for research purposes, if any?</b></p> <ul style="list-style-type: none"> <li>• The Pediatric Traumatic Stress Screening Tool (PTSST)             <ul style="list-style-type: none"> <li>• The UCLA Brief Screen for Trauma and PTSD</li> </ul> </li> <li>• The Columbia Suicide Severity Rating Scale (CSSRS)</li> <li>• The Patient Health Questionnaire for Adolescents (PHQ-A)</li> </ul>
<p><b>Implementation Requirements &amp; Readiness</b></p>	<p><b>Space, materials or equipment requirements?</b> A private room or space to meet with the child/family, discuss screening tool responses, and facilitate shared decision-making in response to safety concerns, suicide risk, and traumatic stress symptoms.</p> <p><b>In order for successful implementation, support should be obtained from:</b> 1. The clinic or multi-disciplinary team; and 2. Referral settings, including for crisis intervention and evidence-based trauma treatment.</p>
<p><b>Training Materials &amp; Requirements</b></p>	<p><b>List citations for manuals or protocol descriptions and/or where manuals or protocol descriptions can be obtained.</b> Intermountain Healthcare. Diagnosis and management of traumatic stress in pediatric patients (2020). Available at: <a href="https://intermountainhealthcare.org/ckr-ext/Dcmnt?ncid=529796906">https://intermountainhealthcare.org/ckr-ext/Dcmnt?ncid=529796906</a> or at <a href="https://utahpips.org/cpm">https://utahpips.org/cpm</a> Accessed Oct 26, 2020.</p> <p><b>How/where is training obtained?</b> Via outreach to the project team (see contact information below) or via self-study of materials cited above.</p> <p><b>What is the cost of training?</b> Free</p> <p><b>Are intervention materials (handouts) available in other languages?</b>  <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><b>If YES, what languages?</b> Spanish</p>
<p><b>Pros &amp; Cons/ Qualitative Impressions</b></p>	<p><b>What are the pros of this intervention over others for this specific group (e.g., addresses stigma re. treatment, addresses transportation barriers)?</b></p> <p><u>The Pediatric Traumatic Stress Screening Tool:</u></p> <ul style="list-style-type: none"> <li>• is brief</li> <li>• targets trauma and traumatic stress, which often go undiagnosed or misdiagnosed</li> <li>• screens for action items including, and in addition to, trauma exposure</li> <li>• screens for suicidal risk</li> <li>• screens for traumatic stress symptom severity and sub-category</li> <li>• includes validated items and measures</li> <li>• is ordered and formatted to identify priorities and facilitate decision-making</li> </ul>



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**Pros & Cons/  
Qualitative  
Impressions cont'd**

- is available in different formats to best fit child/family and setting needs
- facilitates conversation with families around difficult subjects
- provides skills and resources to families while awaiting treatment

The CPM response protocol:

- is brief
- targets key decisions
- is suited to clinicians and non-clinicians
- encourages shared and strengths-based decision-making
- addresses safety concerns first
- is responsive to trauma exposure, suicide risk, and traumatic stress
- helps connect children with traumatic stress to evidence-based trauma treatment
- links to resources/tools and guidance for teaching a skill to target the most disruptive symptoms of traumatic stress

**What are the cons of this intervention over others for this specific group  
(e.g., length of treatment, difficult to get reimbursement)?**

The Pediatric Traumatic Stress Screening Tool:

- is limited to children 6-18 years old
- is a screening tool, not a full trauma-informed mental health assessment
- compliments the use of other forms/questionnaires, but no items directly related to basic needs

The CPM response protocol:

- can increase provider comfort with responding to trauma and suicidality

Setting Implementation Requirements and Preparations:

- Prioritize traumatic stress screening within the setting workflow, timing, and other goals.
- Recruit clinic and multi-disciplinary team support.
- Resolve any space constraints.
- Identify evidence-based trauma treatment providers (and accepted insurance panels) available in the populations/settings you serve.

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**Contact Information**

**Authors:** Keeshin, B., Shepard, L., Giles, L., Bradshaw, J., & Thorn, B. on behalf of the Pediatric Integrated Post-trauma Services (PIPS) project team

**PIPS Project Team:** Attallah, T., Bradshaw, J., Byrne, K., Campbell, K., Davis, N., Giles, L., Keeshin, B., Kolko, D., Nkoy, F., Oxman, A., Porter, H., Reynolds, C., Shepard, L., & Thorn, B.

**Citation:** Intermountain Healthcare. Diagnosis and management of traumatic stress in pediatric patients (2020). Available at: <https://intermountainhealthcare.org/ckr-ext/Dcmnt?ncid=529796906>. Accessed Oct 26, 2020.

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