Adolescent Rapid Trauma Screening Pilot Study: Results & Recommendations

Naomi Schapiro, Samira Soleimanpour, Adrienne Faxio, Claire Brindis
University of California, San Francisco
Background

- Increased funding 2015-2017 in Oakland school-based health centers (SBHC) with increased mental health services & mandate for trauma screening

- Focus on trauma-informed schools & health care settings

- GAPs in the literature:
  - Ongoing controversies about the best way to screen for trauma
  - No RAPID, OPEN-ACCESS trauma symptom screen validated for teens
To identify the accuracy of two short trauma screens validated for use with adults in primary care settings in identifying adolescent SBHC clients with symptoms of post-traumatic stress disorder (PTSD) who require further assessment and/or intervention.

- Funding from Blue Shield California Foundation – 7/1/16-6/30/17
- Permission from UCSF IRB, La Clinica de La Raza & Lifelong Medical
Methods

- **Instruments**
  - Primary Care PTSD Screen for DSM-5 (PC-PTSD) – 4 questions
  - PTSD Checklist 2 (PCL-2) – 2 questions
  - UCLA PTSD Reaction Index for DSM 5 - 27 symptom questions, validated for use with adolescents

- **Focus Groups (2) with semi-structured question guide** – reviewed all screening tools with youth
  - 2 SBHC research sites (written parent permission)
  - Thematic analysis, using Dedoose software, two coders
Instruments used

Primary Care PTSD for DSM-V (PC-PTSD)
"In your life, have you ever had any experience that was so frightening, horrible or upsetting that in the past month you" (yes/no):

1. Have had nightmares about it or thought about it when you didn’t want to
2. Tried hard not to think about it or went out of your way to avoid situations that reminded you of it
3. Were constantly on guard, watchful or easily startled?
4. Felt numb or detached from others, activities or your surroundings?

PTSD Checklist-2 (PCL-2)

- How much have you been bothered by each problem in the past month related to a stressful life experience (not at all, a little bit, moderately, quite a bit, extremely):

  1) Repeated, disturbing memories, thoughts, or past images of a stressful experience from the past?
  2) Feeling very upset when something reminded you of a stressful experience from the past?
Recruitment

- Clients from 3 SBHCs who had already been screened for depression, trauma and substance use and offered behavioral health services, if needed

- Verbal parent consent in English or Spanish (by phone) and written student assent obtained

- Waiver of parental consent if confidential services
Sample

○ N=77 youth

○ 50% male

○ 13 years old on average (range 12-15 years)

○ 12% 6th grade, 36% 7th grade, 52% 8th grade

Ethnicity

- Latino, 64%
- African American, 13%
- Asian, 16%
- Other, 8%
Results

- 8% (n=6) of study sample met DSM-5 criteria for PTSD per UCLA PTSD Reaction Index
  - 50% male
  - 13 years old on average
  - 33% 7th grade; 66% 8th grade
### Results

<table>
<thead>
<tr>
<th>Instrument (min-max score)</th>
<th>Average Score (Range)</th>
<th>Correlation Coefficient (*p&lt;0.05)</th>
</tr>
</thead>
<tbody>
<tr>
<td>UCLA PTSD Reaction Index (0-108*)</td>
<td>12.4 (0-56)</td>
<td>1.00</td>
</tr>
<tr>
<td>* Actual scoring based on whether PTSD symptom category criteria are met and not on total score</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PC-PTSD (0-4)</td>
<td>0.69 (0-4)</td>
<td>.77*</td>
</tr>
<tr>
<td>PCL-2 (0-8)</td>
<td>1.36 (0-7)</td>
<td>.67*</td>
</tr>
</tbody>
</table>
### Screening Validation Results

<table>
<thead>
<tr>
<th></th>
<th>Sensitivity</th>
<th>Specificity</th>
<th>Positive Predictive Value</th>
<th>Negative Predictive Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PC-PTSD</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≥1</td>
<td>100%</td>
<td>69%</td>
<td>21%</td>
<td>100%</td>
</tr>
<tr>
<td>≥2</td>
<td>100%</td>
<td>83%</td>
<td>33%</td>
<td>100%</td>
</tr>
<tr>
<td>≥3</td>
<td>67%</td>
<td>97%</td>
<td>67%</td>
<td>97%</td>
</tr>
<tr>
<td><strong>PCLC-2</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>≥1</td>
<td>100%</td>
<td>51%</td>
<td>15%</td>
<td>100%</td>
</tr>
<tr>
<td>≥2</td>
<td>100%</td>
<td>73%</td>
<td>24%</td>
<td>100%</td>
</tr>
<tr>
<td>≥3</td>
<td>83%</td>
<td>85%</td>
<td>31%</td>
<td>98%</td>
</tr>
<tr>
<td>≥4</td>
<td>67%</td>
<td>90%</td>
<td>36%</td>
<td>97%</td>
</tr>
</tbody>
</table>

(Adult version score of ≥3 is positive for PC-PTSD, and ≥4 for PCLC-2)
Focus Group Themes

- Developmental & environmental context of trauma screenings
  - Exposure to community trauma & impact of individual trauma difficult to tease out – affects answer to screening questions
  - Being on guard & thinking the world is dangerous seen as survival attributes, not symptoms of trauma
  - Fighting because you have to vs. fighting because you want to
  - Sleep and attention problems have multiple causes
Focus Group Themes

- Youth recommendations for future surveys
  - No strong recommendation about format
  - Prefer yes-no questions to “how often” questions
  - Have trouble answering multi-part questions
  - Concrete thinking and suggestions about wording
Focus Group Themes

- Youth recommendations about best questions to screen for trauma symptoms
  - Nightmares
  - Somatic symptoms
  - Wanting to get back at someone
  - Self-harm
  - Difficulty feeling love
Focus Group Themes

- **Procedural suggestions related to focus groups**
  - Elicit youth descriptions of trauma & context first
  - Trust and process issues
  - Opportunity to elicit youth views about trauma more broadly, potential for peer support
Conclusions

- Both PCL-2 and PC-PTSD screens had good sensitivity and specificity when using lower cutoff scores, but youth may be answering questions without understanding them fully.

- Positive screens non-specific – may indicate other behavioral health issues.

- Tentatively recommended PC-PTSD 4 question screen with a cutoff of 2 or more positive answers.
Next Steps

- Further research is needed to identify a developmentally and culturally appropriate tool
  - Engage key informants and experts
  - Conduct additional focus groups with youth
  - Continue testing instruments with older youth from diverse backgrounds
  - Examine screening results with screens for anxiety and depression to disentangle co-occurring symptoms
  - Explore chronic background stress/ACES vs. acute traumatic events
Currently funded: study of Unaccompanied Immigrant Youth

- “Supporting resilience among unaccompanied immigrant youth: are school-based group interventions safe and acceptable?”
- Focus on Guatemalan youth speaking indigenous languages (among most prevalent newcomer groups in Oakland)
- Seeking Mam/Spanish speaking research associate

UCSF RAP grant, awarded 12/2017
Trauma Screening Validation – next steps

Meaning and treatment of trauma

- Culturally appropriate screening tools
- Youth perceptions of trauma screening & treatment
- Building resilience
- Peer to peer support
Thanks and Questions?

- Many thanks to my co-investigators Samira Soleimanpour, PhD and Claire Brindis, DrPH – and our research associate, Adrienne Faxio
- Thanks to Blue Shield of California Foundation