Pediatric Traumatic Stress: Assessment and Management
PA-STN Multi-Center Research

Susan Rzucidlo, MSN, RN
Penn State Hershey Children’s Hospital

Research Team Members:
Center for Child Traumatic Stress,
Children’s Hospital of Philadelphia
Nancy Kassam-Adams, PhD
Stephanie Schneider, MS
Grace Good RN, BSN, MA

Kimberly Adams, MPH
Erin Bonifacio MSN, RN

Collaborating Pediatric Trauma Centers – Study Site PI
Marie Campbell, RN, MSEd., MS, Children’s Hospital of Philadelphia
Christine McKenna, MSN, RN, CRNP Children’s Hospital of Pittsburgh
Donna Grather, MSN, RN, Lehigh Valley Health System
Carol Hanson, MSN, RN, Geisinger Medical Center
Pediatric Medical Traumatic Stress

10 injured children

8 will have emotional distress

3 will develop ASD \ PTSD
Background:
Why do this study??

- Improve our care for “emotional trauma”
- Use of screening tools in the early phase post trauma
- Evaluate providers for screening in practice
  - Social work – Children’s in Pittsburgh
  - Child life
  - Nursing – other 4 sites
- Evaluate process \pilot before disseminate
- Better coordinate resources to support coping
Evaluating Utilization of a Pediatric Traumatic Stress Assessment: Study Aims

- **Aim #1** – To evaluate the feasibility and utility of a brief, systematic assessment process by nursing staff for children and parents at risk for posttraumatic stress in the acute injury period in five pediatric trauma centers in Pennsylvania.

- **Aim #2** – Describe the proportion of children and parents who have current symptoms and at risk for ongoing distress.

- **Aim #3** – Survey nursing staff knowledge, skills, and attitudes about routinely assessing and treating traumatic stress in pediatric trauma patients.
Methodology: Two-tiered screening
Positive initial lead to secondary screening

Child Trauma Screening Questionnaire (CTSQ)

Shade Circles Like This → ○ so that form can be scanned accurately

Please indicate whether any of these things have happened to you since the injury:

1. Do you have any thoughts or memories about the injury that you don’t want to have? ○ Yes ○ No
2. Do you have bad dreams about the injury? ○ Yes ○ No
3. Do you feel or act as if the injury is about to happen again? ○ Yes ○ No
4. Do you have bodily reactions (such as a fast beating heart, stomach churning, sweating and feeling dizzy) when reminded of the injury? ○ Yes ○ No
5. Do you have trouble falling or staying asleep? ○ Yes ○ No
6. Do you feel grumpy or lose your temper? ○ Yes ○ No
7. Do you feel upset about reminders of the injury? ○ Yes ○ No
8. Do you have a hard time paying attention? ○ Yes ○ No
9. Are you on the “look-out” for possible dangerous things that might happen to yourself or others? ○ Yes ○ No
10. When things happen by surprise or all of a sudden, does it make you jump? ○ Yes ○ No

Total Yes and No Responses 3 7

Parent Traumatic Stress Screening Questionnaire

The questions below ask about problems or complaints that people sometimes have in response to a stressful life event - such as when a child is injured. For each question, please choose how much you have been bothered by that problem since your child’s injury - Not at all, A little bit, Moderately, Quite a bit, or Extremely.

<table>
<thead>
<tr>
<th>Question</th>
<th>Not at all</th>
<th>A little bit</th>
<th>Moderately</th>
<th>Quite a bit</th>
<th>Extremely</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Have you had repeated disturbing memories, thoughts, or images of what happened when your child was injured?</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>2. Have you had repeated disturbing dreams of what happened?</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
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<tr>
<td>3. Have you suddenly been acting or feeling as if the event were happening again - as if you were reliving it?</td>
<td>○</td>
<td>○</td>
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<tr>
<td>4. Have you been feeling very upset when something reminded you of what happened?</td>
<td>○</td>
<td>○</td>
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<tr>
<td>5. Have you been having physical reactions - such as heart pounding, trouble breathing, or sweating - when something reminded you of what happened?</td>
<td>○</td>
<td>○</td>
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<tr>
<td>6. Have you been avoiding thinking about or talking about what happened or avoided having feelings related to it?</td>
<td>○</td>
<td>○</td>
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<td>○</td>
<td>○</td>
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<tr>
<td>7. Have you been avoiding activities or situations because they remind you of what happened?</td>
<td>○</td>
<td>○</td>
<td>○</td>
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<td>○</td>
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<tr>
<td>8. Have you been having trouble remembering important parts of what happened when your child was injured?</td>
<td>○</td>
<td>○</td>
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<tr>
<td>9. Have you been having a loss or interest in activities that you used to enjoy?</td>
<td>○</td>
<td>○</td>
<td>○</td>
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<td>○</td>
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<tr>
<td>10. Have you been feeling distant or cut off from people?</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
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<tr>
<td>11. Have you been feeling emotionally numb or unable to have loving feelings for those close to you?</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
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</tr>
<tr>
<td>12. Have you been feeling as if your future will somehow be cut short?</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
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<tr>
<td>13. Have you been having trouble falling or staying asleep?</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>14. Have you been feeling irritable or having angry outbursts?</td>
<td>○</td>
<td>○</td>
<td>○</td>
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<td>○</td>
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<tr>
<td>15. Have you been having difficulty concentrating?</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>16. Have you been being “super-alert” or “watchful or on guard”</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>17. Have you been feeling jumpy or easily startled?</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
<tr>
<td>18. I’ve been asking you about different problems one by one. Now thinking about all these things together, how much have these things been a problem for you since your child has been injured?</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
<td>○</td>
</tr>
</tbody>
</table>

Child Trauma Screening Questionnaire (Kenardy, Spence & MacLeod 2006)

PTSD Checklist (PCL - Weathers, Litz, Huska, & Keane, 1993)
RESULTS – Study Aim #2
Parent and Child: Demographics

- 225 children and 242 parents were assessed at 5 pediatric trauma centers in PA over 6 months

- Child Gender: male (67%), female (33%)
- Ages evenly distributed between 7-17 years
- Injuries: Extremity (35%), head 36%), abdomen (20%)
- More mothers than fathers screened (69%)
- Time to screen
  - under 24 hrs (32%); 25 to 48 hrs (39%); 49-72 (13%)
Initial Screening for Acute PTS Symptoms

24% of children screened higher risk for persistent PTS symptoms

7% of parents screened had significant acute PTS symptoms

Half of the children screened reported feeling:

- Jumpy / startle easily (51%)
- Super alert / watchful / on guard (48%)

At least 1 in 3 children reported feeling:

- Intrusive thoughts about trauma (41%)
- Upset at trauma reminders (36%)
- Trouble sleeping (35%)

Parents did not report symptoms as frequently, but about 1 in 5 reported:

- Super alert / watchful / on guard (21%)
- Intrusive thoughts about trauma (19%)
- Trouble sleeping (18%)
After the initial screening, 55 families were further assessed, and identified the following concerns

<table>
<thead>
<tr>
<th>Specific concerns</th>
<th>% for whom this was identified as a concern</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>D: DISTRESS</strong></td>
<td></td>
</tr>
<tr>
<td>Pain</td>
<td></td>
</tr>
<tr>
<td>Fears / Worries</td>
<td>82 %</td>
</tr>
<tr>
<td>Grief / Loss</td>
<td></td>
</tr>
<tr>
<td><strong>E: EMOTIONAL SUPPORT</strong></td>
<td></td>
</tr>
<tr>
<td>Coping needs / strategies</td>
<td></td>
</tr>
<tr>
<td>Parent availability to provide support</td>
<td>50%</td>
</tr>
<tr>
<td>Mobilizing existing support system</td>
<td></td>
</tr>
<tr>
<td><strong>F: FAMILY</strong></td>
<td></td>
</tr>
<tr>
<td>Distress: Parent, Sibling, Other</td>
<td></td>
</tr>
<tr>
<td>Family stressors</td>
<td>59%</td>
</tr>
<tr>
<td>Crucial to address other family needs</td>
<td></td>
</tr>
<tr>
<td><strong>GH: GOOD HEALTH (adherence)</strong></td>
<td></td>
</tr>
<tr>
<td>Pt/Family info needs about child’s care</td>
<td></td>
</tr>
<tr>
<td>Practical barriers to adherence</td>
<td>29%</td>
</tr>
<tr>
<td>Behavioral / emotional issues affecting adherence</td>
<td></td>
</tr>
</tbody>
</table>
Most common practices done in past 6 months

- Encouraged parents to make use of their own social support systems (80%)
- Taught parent or child ways to manage pain and anxiety during procedures (75%)

Practices nurses would like to learn more about

- Providing information to parents about emotional or behavioral reactions that the child may need help (67%)
- Teaching parents what to say to their child after a difficult/painful/scary experience (67%)
Conclusions

- Screenings for acute stress symptoms in the acute injury period should be part of routine pediatric trauma care
- Resources and strategies to address **Distress** – Emotional Support – **Family** should be implemented in the acute care phase and at discharge
- Pain management and communication of the plan of care are key focus areas for care
- Nursing and social work are key providers to make a difference