IMPACTING ACUTE TRAUMA: Does a brief preventive intervention affect PTSD outcomes? (IMPACT)

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Why IMPACT?

• Studies suggest 20-40% of acutely injured patients present with high posttraumatic stress symptoms yet only 7% of level I and II trauma centers implement screening procedures for PTSD.

• It may take years for trauma-exposed individuals to seek treatment and the health problems and functional impairments that accompany the disorder translates into significant financial burdens on healthcare systems.

• This gap places trauma centers in a unique position to advance the evidence base for effective PTSD treatments via detection and early intervention.
Research Aims

AIM 1
To assess the prevalence of patients at-risk for the development of PTSD among trauma patients admitted to UMCB.

AIM 2
To implement and assess the effectiveness of a brief preventive intervention to prevent development of PTSD.

AIM 3
To analyze disparities of health outcomes, treatment seeking-behaviors and barriers to care among study participants through analysis of study specific and trauma registry data.
The Brief Preventive Intervention

Evidence Based Approaches

• Seeking Safety
  *Emphasis on emotional safety as priority of first-stage treatment*
  • Orient patient towards feelings emotional safety
  • Identify ways to calm nervous system (engage coping)
  • Activate resources for safe coping (who, what, where)

• Psychological First Aid
  • Engagement, Safety and Comfort, Stabilization
  • Information Gathering: Current Needs and Concerns
  • Connection with Social Supports
The Brief Preventive Intervention

Protocol:

I. Educate and Normalize
II. Safety Check In
III. Safe Coping Plan
IV. Treatment Options
V. Resources
Recruitment and Participants

- 774 admissions
- 281 exclusions
- 342 agree to screen
- 10 decline screen
- 289 decline to participate
- 141 Discharge
- 263 negative screens
- 79 positive screens
- 40 Intervention
  - 18 (45-day)
  - 9 (90-day)
- 25 Control
  - 20 (45-day)
  - 14 (90-day)
Initial Descriptive Results

AIM 1
To assess the prevalence of patients at-risk for the development of PTSD among trauma patients admitted to UMCB.

- 4-item PC-PTSD screen
  - 34% (n=65) screen positive using the PC-PTSD guidelines of 3 or more positive responses.

- 10-item PAS screen
  - 81% (n=54) screen positive using the PAS guidelines of 16 or higher.
At-Risk Screen Results

Although research indicates a score of a “3” or above on PC-PTSD screen as risk for developing PTSD, UMCB hospitalized trauma patients who present with only 1 or 2 symptoms show as much risk or more of meeting criteria for PTSD diagnosis at 45 days post injury.

<table>
<thead>
<tr>
<th># of Traumatic Symptoms at Bedside</th>
<th>% Participants Meeting PTSD criteria: 45 Days</th>
<th>Ratios (n= 41)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>41.6%</td>
<td>5/12</td>
</tr>
<tr>
<td>2</td>
<td>72.7 %</td>
<td>8/11</td>
</tr>
<tr>
<td>3</td>
<td>61.5 %</td>
<td>8/13</td>
</tr>
<tr>
<td>4</td>
<td>60 %</td>
<td>3/5</td>
</tr>
</tbody>
</table>
### Initial Descriptive Results

**AIM 2**

To implement and assess the effectiveness of a brief preventive intervention to prevent development of PTSD.

<table>
<thead>
<tr>
<th>Timepoint</th>
<th>Intervention (n=40)</th>
<th>Control (n=25)</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ Baseline Screen (n=65)</td>
<td>33.3%</td>
<td>34.6%</td>
</tr>
<tr>
<td>+ Baseline PAS (n=54)</td>
<td>75%</td>
<td>90.9%</td>
</tr>
<tr>
<td>+ 45-day PCL (n=48)</td>
<td>60.9%</td>
<td>40%</td>
</tr>
</tbody>
</table>

*Matched 45 and 90-day:*

<table>
<thead>
<tr>
<th></th>
<th>n=18</th>
<th>n=6</th>
</tr>
</thead>
<tbody>
<tr>
<td>+ 45-day PCL</td>
<td>66.7%</td>
<td>33.3%</td>
</tr>
<tr>
<td>+ 90-day PCL</td>
<td>50%</td>
<td>33.3%</td>
</tr>
</tbody>
</table>
Most Common PTSD symptoms

45 Day Follow Up: Preliminary Results (n=43)

- Physical reactions (heart pounding, trouble breathing, sweating) 40% when reminded of stressful experience
- Being super alert, watchful on guard (hypervigilant state) 44%
- Trouble falling asleep 56%
- Repeated disturbing memories, thoughts, images 62%
Treatment Seeking

AIM 3
To analyze disparities of health outcomes, treatment seeking-behaviors and barriers to care among study participants through analysis of study specific and trauma registry data.

At 45-day follow up (preliminary findings):

~ Sought mental health treatment since leaving hospital 26%
~ Want treatment referral for traumatic stress today 43%
Treatment Barriers

AIM 3
To analyze disparities of health outcomes, treatment seeking-behaviors and barriers to care among study participants through analysis of study specific and trauma registry data.

At 45-day follow up (preliminary findings):

~ Believe you WILL experience barriers to accessing care 34%
~ Have experienced barriers to accessing mental health care 76%
  • No or poor transportation
  • Lack of insurance and inability to pay out of pocket for treatment
  • Providers accessible but don’t accept their insurance
  • Ongoing medical needs and physical complications which preclude attention to mental health
  • Rural communities huge lack of access to providers
Reflections and Discussion

Positive developments:
- Collaboration among study staff at UMCB and UT School of Social Work
- The study is going well but fewer participants than expected will be enrolled
- Study will provide solid pilot data to seek other funding sources for a larger, potentially multi-site study with extended follow up interviews

Challenges affecting implementation:
- Differences between UT and Seton hiring policies and procedures
- Differences between UT and Seton regarding fund utilization
- Lengthy data use agreement approval
- Seton IRB modifications to the study

We anticipate request of a no cost extension due to these delays.
Thank you.

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