SCREENING AND TREATING INJURED TRAUMA SURVIVORS FOR PTSD AND DEPRESSION AT A LEVEL 1 TRAUMA CENTER

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Objectives

• Problem of PTSD after traumatic injury

• American College of Surgeon Committee on Trauma Recommendation

• Screening for PTSD and Depression

• Intervention with Injured Trauma Survivors

Considerations and Next Steps
Important Domains in Quality of Life (QoL)

- Physical wellness
- Psychological well-being
- Cognition
- Social relationships
- General health/health change
- Economic demands
- Hopes and expectations
- Spirituality
QoL after trauma
QoL after Trauma

MH = Mental Health
PF = Physical functioning
RP = Role pain
BP = Bodily pain
GH = General health
VT = vitality
SF = social functioning
RE = Role emotional

Kiely et al., 2006
## QoL after Trauma

<table>
<thead>
<tr>
<th></th>
<th>PTSD severity</th>
<th>Physical QoL</th>
<th>Mental QoL</th>
<th>ISS</th>
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</thead>
<tbody>
<tr>
<td>PTSD severity</td>
<td>-</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Physical QoL</td>
<td>-0.381**</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Mental QoL</td>
<td>-0.505**</td>
<td>0.371*</td>
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<tr>
<td>ISS</td>
<td>-0.095</td>
<td>-0.06</td>
<td>0.04</td>
<td></td>
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(** p < 0.01; * p < 0.05, Kiely et al., 2008)
Why is PTSD a problem?

- PTSD is one of the strongest contributing factors to lower QoL (Kiely et al., 2007)

- PTSD is significantly related to poor health outcomes
  - Inhibited immune functioning
  - Chronic pain syndromes
  - Gastrointestinal illness
  - Respiratory disease
  - Cancer
The PTSD Crisis That’s Being Ignored: Americans Wounded in Their Own Neighborhoods

*Dr. Andrew Dennis, a surgeon in the Cook County hospital trauma unit, looks at the wound of a man who was shot in 2012 in Chicago, on May 16, 2013. Americans in violent neighborhoods are developing PTSD at rates similar to combat veterans. (Daniel Acker/Bloomberg via Getty Images)*
PTSD Defined

**Symptom Clusters**

- **Intrusions**
  - Nightmares, flashbacks
- **Avoidance**
  - Of people, places that remind someone of the trauma
- **Hyperarousal**
  - Feeling jumpy, easily startled
- **Negative alterations in mood and cognitions**
  - World is a dangerous place

**Considerations**

- 30 Days post-trauma
- Persistent, abnormal adaptation of neurobiological systems to the stress of trauma exposure (Sherin & Nemeroff, 2011)
PTSD after traumatic injury

<table>
<thead>
<tr>
<th>Time since injury</th>
<th>PTSD Symptom</th>
<th>Severity</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>Chronic distress 21.8%</td>
<td></td>
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<tr>
<td>1 mo.</td>
<td>Delayed distress 5.6%</td>
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</tr>
<tr>
<td>3 mo.</td>
<td>Acute distress 12.1%</td>
<td></td>
</tr>
<tr>
<td>6 mo.</td>
<td>No distress 60.5%</td>
<td></td>
</tr>
</tbody>
</table>

dedeRoon-Cassini, Mancini, Rusch, & Bonanno, 2010
Trauma Type & PTSD

- General population: 89.6% will experience at least 1 traumatic event
  - Average = 4.8 traumas
- Single incident traumatic injury
  - 2.8 million people traumatically injured each year

- 8% likelihood of developing PTSD (APA, 2000)
- Injured trauma survivors
  - Non-assaultive trauma: 8-20% PTSD
  - Assaultive trauma: 25-40% PTSD
American College of Surgeon’s Committee on Trauma

• Resources for the Optimal Care of the Injured Patient (ACS – CoT, 2013)
  – Outlines requirements & recommendations
  – Recommends PTSD and Depression screening followed by intervention
    • Posttraumatic stress disorder checklist (PCL)
    • Patient Health Questionnaire- 9 for Depression (PHQ 9)
Screening for PTSD & Depression

• ED Screen  (Richmond et al., 2011)
  – Predictive Screening Tool for Depression and PTSD
  – 8 items

  – Benefits: adequate sensitivity and specificity
  – Challenges: ED discharge only, not validated in the hospitalized population
Screening for PTSD & Depression

• Automated Screen (Russo et al., 2013)
  – 10 items
  – Abstracts from medical record

  – Benefits: High population impact
  – Challenges: Assumes all information is in the chart
Screening for PTSD & Depression

• Injured Trauma Survivor Screen (ITSS), (Hunt et al., under review)
  – 9 items (5 for depression, 5 for PTSD
  – Score > 2 = risk positive
  – Benefits: Brief
  – Challenges: Time required by personnel
Treatment Approaches

• Stepped Collaborative Care (Zatzick et al., 2004)
  – CC began in the hospital
  – CC consisted of
    • Continuous Post-injury case management
    • Motivational interviewing targeted at alcohol use/dependence
    • EB pharmacotherapy and/or CBT with persistent PTSD @ 3 mnths
  – Results
    • CC patients were less symptomatic over time related to PTSD symptoms and alcohol abuse/dependence
Treatment Approaches

• Early prolonged exposure (PE) therapy (Rothbaum et al., 2012)
  – ED sample
  – 3 sessions of PE
    • ED at bedside, 1 & 2 weeks posttrauma
  – Results
    • Significant reduction in PTSD symptom severity by one month
    • What about hospitalized patients?
Treatment Approaches

• Screen with wait to treat approach
  – Screen for PTSD risk (Wagner et al., 2007)
    • Re-evaluate at 1 month, if PTSD positive, then intervene
    • Behavioral activation reduced PTSD but not depression symptoms
  – Screen for Acute Stress Disorder (Bryant et al., 1999, 2008)
    • Initiate treatment 1-2 weeks after trauma
    • Psychoeducation with CBT (exposure and cognitive restructuring)
Considerations

• Recovered trajectory
PTSD after traumatic injury

PTSD Symptom Severity

Chronic distress 21.8%
Delayed distress 5.6%
Acute distress 12.1%
No distress 60.5%

Time since injury

Hospitalization

deRoon-Cassini, Mancini, Rusch, & Bonanno, 2010
Considerations

• Recovered trajectory

• Resources

• Volume of trauma center
Considerations

• Resources

• Volume of trauma center

• Integrated care approach
Next Steps

• While PTSD and Depression screening are recommended, does it make a difference in outcome and QoL?

• Integration with trauma programs

• Treatment efficacy studies

• Mechanism of change
QUESTIONS?

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