How to Screen & Manage PTSD in Your Trauma Center

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Overview

• What is PTSD
• Why PTSD is important at trauma centers
• Best approaches to
  - Screening
  - Intervention
  - Referral
• Future Directions

Posttraumatic Stress Disorder (PTSD): DSM-IV

• A. Traumatic Event
• B. Intrusive Symptoms
• C. Avoidant Symptoms
• D. Arousal Symptoms
• E. 1 Month
• F. Functional Impairment
PTSD DSM-IV Traumatic Event

- Experienced, witness, or has been confronted with an event that involved actual or threatened death or serious injury or threat to physical integrity to self or others
- Response involved intense fear, helplessness, or horror

PTSD Intrusive Symptoms

- Memories
- Nightmares
- Flashbacks
- Distress at reminders

PTSD Avoidant Symptoms

- Avoiding reminders
- Amnesia
- Emotional numbing
- Social isolation
- Foreshortened future
PTSD Arousal Symptoms

- Insomnia
- Irritability
- Hypervigilance
- Startle
- Poor concentration

The Biology of PTSD: Take Home

- Stress response biology and symptoms are part of being human
Spectrum of Trauma-related Disorders

- Posttraumatic Stress Disorder (PTSD)
- Acute stress disorder
- Other anxiety disorders
- Bereavement spectrum disorders
- Major depression
- Somatic symptom amplification
- Alcohol and drug use disorders
- Other risk behaviors (e.g., carrying a weapon)
- Organic disorders related to head injury, toxic exposure etc.,
- Exacerbation of pre-existing chronic mental illness

Why is PTSD Important?
PTSD & Comorbidity is Associated With Functional Impairment After Injury

Annals of Surgery 2008:
PTSD is Associated with Impairment in Physical Function

Objectives: To examine factors other than injury severity that are likely to influence functional outcomes after hospitalization for trauma.

Methods: Multicenter Cohort Study: We used data from the National Study on the Costs and Outcomes of Trauma to investigate the association between posttraumatic stress disorder (PTSD), depression, and return to work and the development of functional impairment. PTSD and depression are frequent and can independently influence return to work after injury. Early identification and treatment of these disorders may improve functional recovery after injury.
National Study on Costs & Outcomes of Trauma (N=3000):
Psychiatric Disorders & Functional Outcomes

- Broad spectrum of impairment
- “Dose Response” observed in 5 of 6 outcome domains
- Return to work impacted

PTSD & Not Returning to Work

Depression & Not Returning to Work
"Dose Response" PTSD & Depression Not Returning to Work

Managing PTSD and Comorbidity at Trauma Centers

- Screening
- Intervention
- Referral
PTSD screening & intervention best practice guideline recommendation

“The incorporation of routine trauma center–based screening and intervention for PTSD and depression is an area that could benefit from the ongoing integration of emerging data and evolving expert opinion”.

Annals of Surgery March 2013: Harborview PTSD TSOS Trial II
Harborview Case Study

• 15 y/o female
• Assaulted with knife to face
• Left VII cranial nerve injury
• Blood alcohol positive
• Patient-centered concerns followed post-injury
Patient-Centered Evaluation: Posttraumatic Concerns

- Of all the things that have happened to you since you were injured, what concerns you the most?

ED Gurney/ Trauma Ward

- “…my smile might not be back no more and um my face might be scarred for life.”
2-4 Weeks Post-injury: (Outpatient Clinic)
• “…my face being back the way it used to be…I think they cut a nerve, so they said it takes 4 to 6 months for my smile to come back or not…”

2-4 Weeks Post-injury: (Outpatient Clinic)
• “I’m kinda traumatized cause like, when it happened I thought I was going to die and stuff so I don’t know, basically just hanging and stuff, it was just a total shock I guess.”

Stepped Care
Screening: Patient Reported Outcomes

- PTSD - PTSD Checklist
- Depression – 9-item patient health questionnaire
- Physical Function - MOS SF-12
Evidence-based PTSD Treatments

• Psychotherapy
• Medications

Evidence-based PTSD Medication Treatment

• Selective Serotonin Reuptake Inhibitors (SSRI)
  - Sertraline (FDA Approved)
  - Paroxetine (FDA Approved)
  - Fluoxetine
  - Citalopram

Evidence-based PTSD Medication Treatment: Physical Pain

• Serotonin Norepinephrine Reuptake Inhibitors (SNRI)
  - Venlafaxine
  - Duloxetine
Evidence-based PTSD Medication Treatment: Sleep Disturbances

- Prazosin
- Trazodone

Future Directions

The Informatics Challenge: Infrastructure Variability
Van Eaton Zatzick et al., Journal of the American College of Surgeons’ 2014
The Informatics Goal

- Real-time work-flow integration

Harborview PTSD Trial IV: Population-based Automated PTSD & Comorbidity Screening

Computerized Decision Support for PTSD & Comorbidity
Next Steps PTSD Clinical Can Inform Policy Mandates Targeting PTSD Screening and Intervention at US Trauma Centers