

**Prevalence of Posttraumatic Stress Disorder in Acute Trauma Patients**

*Noah Joseph, MD; Alex Benedick, MD; Mary Alice Breslin, BA; Christopher Flanagan, MD; Megan Joann Simpson, MEd; Mark Anthony Kalina; Bridget A. Gill, BSN, RN; Sarah Hendrickson, MEd; Heather A. Vallier, MD  
MetroHealth System, Cleveland, OH, United States*

**Purpose:** Posttraumatic stress disorder (PTSD) may be a disabling consequence of trauma. It is recognized that PTSD adversely affects work ability, activities of daily living, and pain. Identification and intervention are paramount to reducing long-term PTSD symptoms. The purpose of this study was to determine the prevalence of PTSD among trauma patients with and without orthopaedic injuries.

**Methods:** 452 adult patients treated for injuries at an urban Level-I trauma center over 16 months were administered the PCL-5 [PTSD Checklist for DSM-V] survey for PTSD during their first outpatient clinic visit. This included 300 men (66%) and 152 women with mean age 44 years and mean ISS 11, with 83% having a fracture of the pelvis and/or extremities. Mean length of stay was 4.8 days, and 23% had ICU stay. All patients who screened positive for PTSD were offered treatment, including support groups, counseling, and outpatient psychotherapy.

**Results:** 103 patients screened positive for PTSD (25%) after injury, of whom 97 (94%) had no prior history of PTSD. Patients with PTSD were younger (35 vs 46 years,  $P < 0.001$ ), more often African American (56% vs 43% Caucasian,  $P < 0.001$ ), and were more likely to use recreational drugs (25% vs 17%,  $P = 0.01$ ). PTSD was more common after gunshot wounds (GSW, 53% positive) and pedestrians struck by motor vehicles (59%).

Over half of all who screened positive for PTSD were victims of crime, and victims screened positive 53% of the time. 69% of patients in the positive PTSD screening cohort sustained orthopaedic injuries, half of whom were treated surgically. Overall, 21% of the patients with orthopaedic injuries had PTSD. There was no association between ISS and PTSD symptoms. Length of hospital stay, an ICU stay, and a history of mechanical ventilation support were also not associated with PTSD.

**Conclusion:** One-fourth of trauma patients screened positive for PTSD. Predictive factors include victims of crime, and mechanisms of GSW and pedestrians struck by motor vehicles. African-American ethnicity, recreational drug use, and younger age were also associated with PTSD. Given the identified prevalence of PTSD following trauma, adequate screening measures for PTSD must be in place in trauma surgery clinics in order to diagnose and refer these patients for proper evaluation and treatment.