A Pilot Study: Mental Health Support May Reduce Postinjury Opioid Use in Orthopaedic Trauma Patients Who Screen Positive for PTSD

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Purpose: The perception of pain is multifactorial. Evidence suggests that psychiatric conditions, such as posttraumatic stress disorder (PTSD), reduces coping with painful stimuli and may be associated with catastrophizing. The purposes of this pilot study were to assess the viability of a program providing PTSD screening and offering mental health services to adult trauma patients, and whether such interventions can reduce overall postinjury opioid use.

Methods: This study included adult trauma patients admitted to a Level-I trauma center over a period of 12 months. Demographic and injury information were collected. Patients were screened for PTSD with the PCL-5 (PTSD Checklist for DSM-5) survey during their first outpatient clinic visit (n = 411). For patients who screened positive, a counselor attempted to contact them to offer counseling, support groups, and/or services of a psychologist or psychiatrist. A subset of this population included patients with operatively managed orthopaedic fractures (n = 152). Those who screened positive for PTSD were evaluated in 2 groups: those who received mental health support, and those who did not. The amount of opioid pain medication dispensed from discharge to 1 year following injury was collected from the automated state prescription reporting system and compared between the 2 groups. All opioid medication was converted to morphine milligram equivalents (MME). Patients on long-term opioid maintenance therapy prior to injury were excluded.

Results: 90 patients (21%) screened positive for PTSD. Of those who screened positive, 34 patients (38%) were able to be contacted and accepted 1 or more of the offered mental health services (12 for coaching, 9 for group support, 15 for rehabilitation psychology referral). In the orthopaedic fracture group (N = 152), 32 (21%) screened positive for PTSD, and 14 patients (44%) received 1 or more of the offered mental health services. At 1 year postinjury, total opioid use in patients receiving mental health services was 956 MME, compared to 1534 MME in patients who screened positive but did not undergo mental health interventions (P = 0.36).

Conclusion: Psychiatric conditions may influence pain perception following traumatic injury. This pilot study demonstrates that a program to screen for PTSD in trauma patients, and offer mental health interventions, is viable. Although underpowered to see statistically significant differences, this study also suggests that providing mental health services to trauma patients who screen positive for PTSD may reduce postdischarge opioid use. Further study, including multivariable statistical analysis in a larger sample, appears worthwhile.

See the meeting app for complete listing of authors' disclosure information.