



US DEPARTMENT OF DEFENSE

BLAST INJURY RESEARCH PROGRAM COORDINATING OFFICE

Risk Assessment and Surveillance

Predictors of Mental Health Outcomes of mTBI: DoD Concussion Clinics in Afghanistan

Sponsored by BUMED under the Wounded, Ill, and Injured (WII)/Psychological Health/TBI Program, NHRC examined acute symptoms reported after combat-related mTBI (e.g., loss of consciousness [LOC], altered mental status [AMS], amnesia, and headaches) and evaluated whether these acute symptoms are associated with long-term mental health outcomes such as PTSD and PCS. Medical records of Service Members who were diagnosed with combat-related mTBI and received treatment in concussion clinics in Afghanistan were reviewed using the Expeditionary Medical Encounter Database (EMED) and outpatient medical records. Medical records were reviewed for mTBI circumstances, characteristics, acute symptoms, and long-term mental diagnoses. Of the 1,089 Service Members assessed, 75% reported AMS, 46% reported LOC, and 43% reported amnesia. The most common symptoms reported were headache (84%) and nausea (43%), and 21% reported concurrent mental health symptoms. At final disposition, 25% of Service Members continued to report headaches. Within one year after injury, mental health diagnoses reported were PTSD (20%), PCS (12%), and depression (8%). After adjusting for mTBI symptoms, concurrent mental health symptoms were associated with PTSD, PCS, and depression, while retained headache was associated with PTSD and PCS. Initial poor concentration was associated with PTSD. A better understanding of acute symptoms after mTBI and whether these symptoms are associated with long-term mental health outcomes may lead to early identification of Service Members who require closer monitoring for the onset of these mental health outcomes. Future studies will include comparisons with non-concussion clinic cohorts on mental health and career performance outcomes.