

Putting Research to Work for Military Families



Focus:
Army

Influence of Bodily Injuries on Symptom Reporting Following Uncomplicated Mild Traumatic Brain Injury in U.S. Military Service Members

French, L. M., Lange, R. T., Iverson, G. L., Ivins, B., Marshall, K., & Schwab, K. (2012). Influence of bodily injuries on symptom reporting following uncomplicated mild traumatic brain injury in U.S. Military service members. *Journal of Head Trauma Rehabilitation*, 27(1), 63-74. doi:10.1097/HTR.obo13e3182248344

SUMMARY: Combat-injured Service members diagnosed with mild traumatic brain injury participated in a study examining the relationships among bodily injuries, traumatic stress, and post-concussion symptoms. There was a significant negative relationship between bodily injury scores and both posttraumatic stress disorder (PTSD) and post-concussion scores.

KEY FINDINGS:

- Individuals who sustained the most extensive bodily injuries reported fewer traumatic stress and post-concussion symptoms compared to those who experienced fewer bodily injuries.
- Individuals in the severe/critical injury category had the lowest rates of all groups for meeting diagnostic criteria for both post-concussive disorder and PTSD.
- Forty-seven percent of those in the minor injury group, 33% in the moderate, 28% in the serious, and 9% in the severe/critical group met criteria for PTSD at the moderate or greater level.
- Sixty-five percent of those in the minor injury group, 50% in the moderate, 38% in the serious and 22% in the severe/critical group met criteria for PTSD at the mild or greater level.

IMPLICATIONS FOR PROGRAMS:

Programs could:

- Offer classes for Service members who have experienced mild traumatic brain injury, offering skills in organizing, planning, and emotion regulation
- Provide curricula for families of Service members on the symptoms of mild traumatic brain injury and referral resources
- Offer support services to families of Service members who have suffered a traumatic brain injury

IMPLICATIONS FOR POLICIES:

Policies could:

- Develop programming that disseminates information on the benefits of screening all returning Service members for mild traumatic brain injury
- Encourage the development and continuation of programs that can promote resilience in Service members, their partners and children
- Encourage collaboration among DoD programs and community-based organizations to support a smooth transition during reintegration for Service members who have suffered a traumatic brain injury

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METHODS

- Patients diagnosed with an uncomplicated, closed mild traumatic brain injury at Walter Reed Army Medical Center following OEF/OIF were recruited; recruitment rates and methods were unspecified.
- Criteria for uncomplicated mild traumatic brain injury was based on post-traumatic amnesia of less than 24 hours, loss of consciousness of less than 15 minutes, and the absence of intracranial abnormality on scan.
- The participants completed measures of post-concussion symptoms and PTSD, and the examining physician completed an anatomically based global severity of injury. Service members divided into four groups based on severity of injury: minor, moderate, serious, and severe/critical injuries.
- Statistical analyses examined the relationships among bodily injury severity and post-concussion symptoms.

PARTICIPANTS

- One hundred thirty-seven Service members participated (100% male); the average age of the sample was 26.60 years (SD = 6.60 years).
- The average time since injury was 2.50 months (SD = 3.30 months), and average number of deployments was 1.10 (SD = 0.30).
- Eighty-five percent of the injuries resulted from blast exposure, and 92% happened as a part of deployment to Iraq.
- No information on service branch, years in the military, and race/ethnicity were presented.

LIMITATIONS

- The post-concussion and PTSD measures were self-reported and may be susceptible to biased or under-reporting.
- The evaluation took place soon after injury and may have been before PTSD symptoms emerged as it takes three months of symptoms before individuals can be diagnosed with PTSD.
- It is unknown if these findings would apply to individuals who had experienced the injury further in the past (average time since injury was 2.5 months).

AVENUES FOR FUTURE RESEARCH

Future research could:

- Examine these outcomes longitudinally to assess if the results vary over time
- Use non-self-report mental health measures and a validity measure in order to strengthen these findings
- Evaluate this outcomes with a comparison group of Service members who have never been diagnosed with a traumatic injury

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