



Repeated Concussions: Time to Spur Action Among Vulnerable Veterans

Purpose

To examine the current literature regarding repeat concussions among Veterans in the form of traumatic brain injury.

Participants

N/A – Literature Review

How was the study conducted?

This review examines the current literature regarding repeat concussions among Veterans in the form of traumatic brain injury.

Findings

Even though recent CTE discussions have focused on the definitive findings among football players and other athletes, the root cause of the pathology—repeated concussion—is prevalent among Veterans in the form of traumatic brain injury (TBI). Veterans tend to have a higher incidence of TBI than comparable counterparts in the general public as a result of military service exposures.

Military Veterans who are exposed to all types of TBI, including acceleration–deceleration injuries of the brain from exposure to ordinances, stand a reasonable risk of developing CTE. Research is beginning to show that some of the posttraumatic stress disorder cases diagnosed in Veterans are CTE, which raises concerns for increased rates of CTE in vulnerable Veteran populations. Recent evidence also suggests racial/ethnic differences in mortality among Veterans with TBI. In a nationally representative study of Veterans with TBI, Hispanic Veterans had almost twofold increased hazard ratio of death compared with non-Hispanic White Veterans (1.6; 95% confidence interval (CI) = 1.0, 2.6) after adjusting for relevant covariates. A recent study used nationally representative VA data to examine the association between TBI severity and combat by race/ethnicity. The study found that 26% of Veterans with TBI served in a combat zone between 2004 and 2010; mTBI increased from 12% to 40%, whereas moderate or severe TBI decreased from 89% to 60%. Moderate or severe TBI was higher in non-Hispanic Blacks (80%) and Hispanics (89%) than in non-Hispanic Whites (72%). In the fully adjusted model that included all ethnic groups, non-Hispanic Blacks (odds ratio [OR] = 1.4; 95% CI = 1.4, 1.5) and Hispanics (OR = 1.5; 95% CI = 1.3, 1.7) had higher odds of moderate or severe TBI than did non-Hispanic Whites. However, combat exposure was associated with higher odds of mild TBI in non-Hispanic Blacks (OR = 2.5; 95% CI = 2.2, 2.8) and Hispanics (OR = 3.4; 95% CI = 1.8, 6.4) than in non-Hispanic Whites (OR = 2.2; 95% CI = 2.1, 2.3).

Military Impact

To accomplish the mission and in the continuing effort to advance the Veterans Health Administration Health Equity Action Plan—the VA strategic guide for health equity—the VA Office of Health Equity is bringing focus to the topic in a bid to spur action toward addressing health and health care disparities among Veterans and offer suggestions for future actions in policy, operations, education, and research.

Uchendu US, Omalu BI, Cifu DX, Egede LE. Repeated concussions: time to spur action among vulnerable Veterans. Am J Public Health. 2016 August; 106(8): 1366–1368. Published online 2016 August. doi: [10.2105/AJPH.2016.303293](https://doi.org/10.2105/AJPH.2016.303293)