



Functional, Health, and Rehabilitation Outcomes in Hispanic Veterans with TBI: A Systematic Literature Review

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BACKGROUND

Traumatic brain injury (TBI) is known as the “**SIGNATURE WOUND**” of Operations Enduring Freedom, Operation Iraq Freedom and Operation New Dawn (OEF/OIF/OND). In 2012, there were ~201,435 Veterans enrolled in the Veterans Health Administration (VHA) with a diagnosis of TBI. The prevalence of Hispanic Veterans with TBI increased from 8% in 2009 to 13% in 2012. Despite the increasing numbers of Hispanic Veterans with TBI, there is a dearth of information about this population. While no studies have addressed health disparities in Hispanic Veterans with TBI, there is strong evidence about health disparities in Hispanics with TBI in the general population.

OBJECTIVE

Summarize current literature on Hispanic Veterans with a diagnosis of TBI to identify gaps in knowledge and future areas of research.

METHODS

A systematic review of the literature was conducted using MEDLINE/PubMed and PsycInfo. A search was conducted using the following Medical Subject Heading (MeSH) combinations: Hispanic Veterans with TBI, Latino Veterans with TBI, minority Veterans with TBI, functional outcomes, health outcomes, and rehabilitation outcomes. In addition, a manual search was conducted using the reference lists from relevant articles. The review was limited to available literature from January 1, 2000 to May 31, 2015. Sixty seven (67) articles were retrieved. Of this, 63 were excluded because the data did not address Latino/Hispanic Veterans with TBI or examined outcomes not specifically related to TBI. Only four studies met the inclusion criteria.

FINDINGS

Authors /Year/ Title	Methods	Major Findings
Egede L, Dismuke C, and Echols C. (2001) Racial/Ethnic disparities in mortality risk among US Veterans with traumatic brain injury.	Sample: National cohort of 14690 Veterans (7885 Non-Hispanic Whites, 1748 Non-Hispanic, 314 Hispanic , and 4743 other/missing race/ethnicity) with a clinical diagnosis of TBI between January 1, 2006 to December 31, 2006. Approach: Retrospective study Main Variables: Mortality; race/ethnicity; and comorbid conditions.	Compared with non-Hispanic Whites, Hispanic ethnicity was positively associated with a higher mortality risk.
Maguen S, Lau KM, Madden E, and Seal KH. (2012) Factors Associated With Completing Comprehensive Traumatic Brain Injury Evaluation.	Sample: 465 OEF/OIF Veterans (193 Caucasian, 17 Black, 75 Hispanic and 180 other/unknown) at one VA Medical Center and its five affiliated community-based outpatient clinics, with a positive initial TBI screen between April 1, 2007 and June 1, 2010 Approach: Retrospective study Main Variables: TBI evaluations; demographics; VA Facility; military characteristics and symptoms.	Headaches, Hispanic ethnicity, and temporal factors (i.e., year and season of initial TBI screen) indicated that the Veteran would receive a comprehensive TBI evaluation..
Scholten JD, Sayer NA, Vanderploeg RD, Bidelsbach DE, and Cifu DX. (2012) Analysis of US Veterans Health Administration comprehensive evaluations for traumatic brain injury in Operation Enduring Freedom and Operation Iraqi Freedom Veterans.	Sample: 55,070 OEF/OIF Veterans (43,838 Non- Hispanic, 6,562 Hispanic and 4,670 other/unknown) who underwent TBI Comprehensive Evaluation between October 2007 and June 2010. Approach: Observational study Main Variables: Demographics variables, deployment history, and reported symptoms.	Hispanic ethnicity was not associated with a positive TBI screening.
U.S. Government Accountability Office. (2008, February) VA Health Care Mild Traumatic Brain Injury Screening and Evaluation Implementation for OEF/OIF Veterans, but Challenges Remain.	Congressional Report (Publication No. GAO-08-276).	VA faces clinical and cultural challenges in its efforts to screen and evaluate mild TBI in OEF/OIF Veterans. Lack of objective diagnostic and standardized tests for minorities populations, including Hispanics.



IMPLICATIONS

This literature review demonstrates that little is known about the influence of Hispanic ethnicity on health, functional, and rehabilitation outcomes among Veterans with TBI. The lack of scientific inquiry into this sub-population of Veterans is alarming in light of the documented health disparities among non-Veteran Hispanics with TBI. Research is needed to identify factors influencing the disparities and needs of this population. It is important to understand the characteristics of the growing population of Hispanic Veterans with TBI to develop programs and policies that promote health equity.

DISCLAIMER

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