



Supporting
Military Families
Through Research
and Outreach

PUTTING RESEARCH TO WORK FOR MILITARY FAMILIES

PTSD, Combat Injury, and Headache in Veterans Returning from Iraq/Afghanistan

Afari, N., Harder, L. H., Madra, N. J., Heppner, P. S., Moeller-Bertram, T., King, C., & Baker, D. G. (2009). *Headache: The Journal of Head and Face Pain*, 49(9), 1267-1276.



308 Veterans from the VA San Diego Healthcare System who served in Operation Iraqi Freedom and Operation Enduring Freedom (OIF/OEF) completed questionnaires in a study to examine the relationship between posttraumatic stress disorder (PTSD), combat injury, and headaches. Specifically, the focus was to determine the contribution of physical injury with loss of consciousness and PTSD to migraine and tension type headaches. Newly returning Veterans who experienced physical injury and PTSD reported higher rates of headaches than those who did not experience physical injury and PTSD.

Key Findings:

- Veterans with PTSD and combat related physical injury were 4 times and 2.2 times, respectively, more likely to report headaches than their peers without PTSD or combat injuries.
- Physical injury, PTSD, and substance abuse strongly predicted Veterans' self-reported headaches.
- Veterans experiencing both migraines and tension type headaches had increased rates of PTSD.

Implications for Programs:

- Programs for combat Veterans could benefit from comprehensive evaluation practices that include screening for somatic complaints (i.e. headaches) and combat physical injury.
- Mental health programs designed to treat PTSD among returning Veterans would benefit from including research related to the effects of combat injury on headaches when developing therapeutic practices.

Implications for Policies:

- A systematic review of self-reported headache experiences among Veterans could further establish any links among combat injury, PTSD and headaches.
- Alternative (complementary) treatment practices could be researched and incorporated into health care programs and individual treatment plans if found effective in treating headaches related to combat injury and PTSD.

Avenues for Future Research:

- Information could be collected through medical records or standardized measures rather than participant recall and self-report diagnoses to improve the accuracy of the data.
- Future research could increase the generalizability of the results by including a random sample, participants from other military branches, and Veterans from other locations.

Prepared by the Military REACH Team.

For additional information, please visit reachmilitaryfamilies.umn.edu

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Background Information

Methodology:

- Veterans who registered for care in the VA San Diego, CA Healthcare System between March and October of 2006 were asked to participate in the study.
- Veterans provided data through a self-reported quantitative questionnaire.
- The Combat Exposure Scale was used to measure combat stressors; Alcohol Use Disorder Identification Test (AUDIT) and Drug Abuse Screening Test (DAST) were used to screen drug and alcohol problems; and the Davidson Trauma Scale (DTS) to assess frequency and severity of PTSD.
- Analysis of Variance and Chi-Square tests were used to examine differences between Veterans with and without self-reported headaches. Logistic regression was used to predict self-reported headaches.





Participants:

- The 308 participants were largely male (88%) with a mean age of 31.4 years; SD= 8.2. 35% were separated from the Navy, 35% from the Marines, and 22% from the Army.
- 46% of participants were White, 25% were Hispanic and 14% were African American.
- There was a 77% response rate (N=308) after excluding those who were not deployed in OIF/OEF and questionnaires with incomplete information.

Limitations:

- Data were collected through self-report and could be affected by recall bias. The sample was not randomly selected from a larger population.
- Diagnosis of migraine and tension type headaches was measured by the use of a dichotomous yes-no question, instead of the International Headache Society's classification criteria.
- Causal or predisposition relationships cannot be made due to the lack of information regarding Veterans' previous history of headaches prior to deployment.

Assessing Research that Works

Research Design and Sample				Quality Rating:	
	Excellent (★★★★)	Appropriate (★★★)	Limited (★★)	Questionable (★)	
The design of the study (e.g., research plan, sample, recruitment) used to address the research question was....	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Research Methods				Quality Rating:	
	Excellent (★★★★)	Appropriate (★★★)	Limited (★★)	Questionable (★)	
The research methods (e.g., measurement, analysis) used to answer the research question were...	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
Limitations				Quality Rating:	
	Excellent Minor Limitations (★★★★)	Appropriate Few Limitations (★★★)	Limited Several Limitations (★★)	Questionable Many/Severe Limitations (★)	
The limitations of this study are...	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
Implications				Quality Rating:	
	Excellent (★★★★)	Appropriate (★★★)	Limited (★★)	Questionable (★)	
The implications of this research to programs, policies and the field, stated by the authors, are...	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
<input type="checkbox"/> Not applicable because authors do not discuss implications					
Overall Quality Rating					