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PUTTING RESEARCH TO WORK FOR MILITARY FAMILIES

A Retrospective Cohort Study of U.S. Service Members Returning from Afghanistan and Iraq: Is Physical Health Worsening Over Time?

Falvo, M.J., Serrador, J.M., McAndrew, L.M., Chandler, H.K., Lu, S. & Quigley, K.S. (2012). A retrospective cohort study of U.S. Service members returning from Afghanistan and Iraq: Is physical health worsening over time? *BMC Public Health*, 12, 1124. doi:10.1186/1471-2458-12-1124



Data was collected from 670 Operation Enduring Freedom/Operation Iraqi Freedom Veterans evaluated at a post-deployment clinic in New Jersey to assess the physical health functioning at several time points post-deployment. In this clinical sample, significantly lower physical health scores corresponded to increasing amount of time post-deployment after adjusting for probable PTSD.

Key Findings:

- Veterans in this post-deployment sample endorsed physical health functioning that is substantially worse than that of the general U.S. population, and indicative of impaired physical functioning regardless of the length of time post-deployment.
- Significantly lower physical health scores corresponded to increasing amount of time post-deployment after adjusting for probable PTSD. Two subscales of physical health (physical functioning and role-physical functioning) also indicated that the longer after return from deployment that Veterans were seen in this clinic, the poorer their physical health.

Implications for Programs:

- Programs could offer courses for Service members about the importance of regular self-care, exercise, and good nutrition to support physical healthy, especially for those that have experienced deployment.
- Programs could provide referral resources for some of the most common physical problems endorsed by this cohort of Veterans.

Implications for Policies:

- Policies could recommend funding for the provision of a range of activities that support good health (e.g., access to recreation centers, regular wellness checks, exercise facilities).
- Policies could provide support for ongoing physical health assessment for Veterans, particularly monitoring a range of health indicators after deployment.

Avenues for Future Research:

- Future research could follow Service members over time, including before deployment and longer than 1-year post-deployment, to track physical health status.
- Additional studies could use non-self-report measures such as doctors' evaluations of physical health.

Prepared by the Military REACH Team.

For additional information, please visit reachmilitaryfamilies.umn.edu

Developed in collaboration with the Department of Defense's Office of Family Policy, the National Institute of Food and Agriculture, and the U.S. Department of Agriculture under The University of Minnesota Award No. 2013-48710-21515 and The University of Arizona Award No. 2009-48667-05833.



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Background Information

Methodology:

- Data from OEF/OIF Veterans evaluated at a post-deployment health clinic in New Jersey was used.
- Veterans were stratified into four groups based on time post-deployment: 1 year, 2 years, 3 years, 4 or more years
- Demographic information, deployment dates, probable diagnosis of PTSD, and responses on the physical health component of the short form health survey questionnaire were collected.
- Analyses of covariance analyzed the impact of PTSD, age and gender on physical health; results were compared to functioning in the general U.S population.

Participants:

- 679 Operation Enduring Freedom/Operation Iraqi Freedom Veterans participated (86% male).
- 1st year characteristics: Mean age = 32.50 (SD=9.80), 75% Reserve/National Guard, 76% Army, 16% Marine Corps, 6% Navy, 30% probable PTSD.
- 2nd year characteristics: Mean age = 32.00 (SD=9.60), 57% Reserve/National Guard, 66% Army, 25% Marine Corps, 6% Navy, 31% probable PTSD.
- 3rd year characteristics: Mean age = 32.00 (SD=10.30), 46% Reserve/National Guard, 56% Army, 29% Marine Corps, 9% Navy, 46% probable PTSD.
- 4th year characteristics: Mean age = 34.80 (SD=9.70), 52% Reserve/National Guard, 57% Army, 18% Marine Corps, 13% Navy, 47% probable PTSD.

Limitations:

- This is a cross-sectional sample and causal conclusions about Veterans worsening over time cannot be reached.
- Because this is a cross-sectional sample, the scores indicating poorer physical functioning may simply mean that Veterans wait to be seen until they are sufficiently symptomatic.
- All data were self-report and may be biased.

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 checked="" type="checkbox"/>	<input 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 type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	
				<input type="checkbox"/> Not applicable because authors do not discuss implications	
Overall Quality Rating					★ ★ ★