



PRE AND POST-DEPLOYMENT HEALTH ASSESSMENT (PPDHA)

Background

In the wake of the 9/11 attack on the Pentagon, the Pentagon Post Disaster Health Assessment (PPDHA) was developed as a means of documenting exposures, injuries, and illness sustained and to facilitate receipt of timely and appropriate care. Fundamental to this assessment was the evaluation of mental health needs.

The survey was administered to Pentagon personnel from 15 Oct 2001 to 15 Jan 2002.

Mental health outcomes deemed most important following such a terrorist attack included post traumatic stress disorder (PTSD), depression, generalized anxiety, panic attacks, and alcohol abuse. A condensed 17-item screening tool was developed to both evaluate and validate these symptom domains.

Among the 4,739 survey respondents, mental health symptoms were the most prevalent finding. Approximately 40 percent screened positive for high-risk of any of the mental health outcomes examined.

There was a significant association between these formulated high-risk mental health groups and reported functional impairment, use of counseling services, and anticipated risk factors, which demonstrated that the screening tool had substantial construct validity.

To further validate the survey's mental health screening tool, pre and post 9/11 medical records for the active duty participants were reviewed. Using this approach, the survey's ability to predict diagnosed mental disorders could be evaluated while adjusting for pre-existing conditions.

Objective: To assess the survey's predictive validity based upon future psychological outcomes.

Methods

Military health system medical records for the PPDHA's active duty respondents 1 year prior to the attack and within 18 months afterward were linked with survey data. Logistic regression was used to evaluate the screening tool's ability to predict diagnosed mental disorders.

Results

Among 1812 active duty survey respondents, approximately 29 percent met the PPDHA screening criteria for high risk for the mental health outcomes examined. There was a statistically significant association between the screening algorithms used and diagnosed mental disorders post 9/11 (Adjusted OR=2.2, 95%CI: 1.5-3.3). Additional factors predictive of post 9/11 mental disorders included female gender, younger age, Army affiliation, enlisted status, history of mental health treatment, 9/11 injury, and witnessing a 9/11 death/injury.

Conclusion

Rapid and effective evaluation of mental health outcomes due to traumatic events is essential for expediting appropriate care. Results from this study further validate the PPDHA's mental health screening tool for use in that regard.

Recommendation

The PPDHA mental health screening tool could serve as a template for future rapid needs assessments; however, further validation studies that incorporate sensitivity/specificity testing are warranted.

