

Research Brief

Combat Exposure and Mental Health: the Long-Term Effects Among Vietnam and Gulf War Veterans

Publication: *Health Economics* (2011); 20(4), 401-416

Keywords: Veterans, combat exposure, Vietnam War, Gulf War, mental health, PTSD; National Survey of Veterans

Research Highlights:

- Among Vietnam and Gulf War veterans, combat exposure and exposure to dead, dying, and wounded people is a significant predictor of mental health declines as measured by an individual's Mental Component Summary (MCS) score.
- Use of a specific measure for traumatic exposure (such as the dead, dying, or wounded people question on surveys) creates a better predictor of mental health declines. This, in turn, allows the U.S. Department of Veterans Affairs (VA), and other mental health providers, to better target mental health services and predict demand.
- This research uses the 2001 National Survey of Veterans, a nationally-representative sample of all veterans.

Authors: Daniel M. Gade, Ph.D.; Jeffrey B. Wenger, Ph.D,

Abstract:

“Using a random sample of more than 4,000 veterans, we test the effects of combat exposure on mental health. We focus on two cohorts of veterans: those who served in Vietnam (1964-1975) and the Gulf War (1990-1991). Combat exposure differed between these groups in intensity, duration and elapsed time since exposure. We find that combat exposure generally, and exposure to dead, dying, or wounded people, specifically, is a significant predictor of mental health declines as measured by an individual's Mental Component Summary (MCS) score. Under our general specifications, the negative effects of combat on mental health were larger for Gulf War veterans than for Vietnam veterans as of 2001. These effects persist after controlling for demographic characteristics, insurance coverage, income, and assets. Using discrete factor, nonparametric maximum likelihood (DFML) estimation we controlled for unobserved heterogeneity, as well as the factors above. In the DFML specifications we find a negative impact of exposure to dead, wounded, or dying people for both Gulf War and Vietnam veterans, but find no statistically significant effect for combat exposure overall for Vietnam veterans as of 2001. Based on our Gulf War parameters, we estimate that the costs of mental health declines to be between \$87 and \$318 per year for each soldier with combat service and exposure to dead, dying, and wounded people.”

Implications

For Practice

Veterans exposed to combat experience the lingering mental health effects of that trauma for decades after combat exposure; for many, the effects are permanent. This research shows that the effects of combat exposure are more pronounced for those whose service includes more traumatic events, such as exposure to dead, dying, or wounded people. Knowing this, our society can better predict the outcomes that these veterans will experience over time and the VA can better target resources and predict long-term resource demand.

For Policy

Policy makers and health care planners often use unnecessarily crude tools to measure combat exposure, such as whether or not a veteran served in a combat zone. We show, using just one question about exposure to dead, dying, or wounded people that these crude tools are missing important information that would allow the VA to better target resources and predict long-term resource demand. As a policy matter, the VA should use precision in its clinical intake and other survey materials in order to better understand the mental health care needs of veterans. It is emphatically NOT the case that ‘combat is combat’, veterans’ individual experiences matter a great deal and accurately forecasting mental health care demand will allow better-designed policies around provision of mental health care.

For Future Research

Understanding of PTSD and other combat-related mental health disorders is constantly evolving. Our research suggests that carefully tailored trauma exposure measurement, especially by the VA, will allow researchers to better explore the causal effects of trauma on mental health decline. Our simple measure, exposure to dead, dying, or wounded people, is used as an example of one type of measure which yields more information than the more simple ‘combat/non-combat’ dichotomy. Future research should include efforts to design and validate more precise measures of combat exposure in order to continue to hone important health care delivery systems.

Author Information

Daniel M. Gade, Ph.D.
United States Military Academy
Daniel.gade@usma.edu

Jeffrey B. Wenger, Ph.D
University of Georgia
jwenger@uga.edu