

Alcohol Use and Substance Use Disorders in Gulf War, Afghanistan, and Iraq War Veterans Compared With Nondeployed Military Personnel

Authors

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Abstract

Although recent veterans have been found to be at increased risk of psychiatric disorders, limited research has focused on alcohol or substance use disorders. This systematic review and meta-analysis examined whether alcohol or substance use disorders were more common in Gulf War, Afghanistan, and Iraq War veterans compared with military comparison groups nondeployed to the corresponding conflict, including never deployed personnel. Literature was searched (1990-2014) in multiple electronic databases. Studies were assessed for eligibility and quality, including risk of bias. Eighteen studies (1997-2014) met inclusion criteria. Pooled analysis based on a random-effects model yielded a summary odds ratio of 1.33 (95% confidence interval (CI): 1.22, 1.46) for alcohol (7 studies) and 2.13 (95% CI: 0.96, 4.72) for substance use (3 studies) disorders among Gulf War veterans, as well as 1.36 (95% CI: 1.11, 1.66) for alcohol (7 studies) and 1.14 (95% CI: 1.04, 1.25) for substance use (4 studies) disorders among Iraq/Afghanistan veterans; meta-regressions found no statistically significant association between theater of war and alcohol use or substance use disorders. Our findings indicate that Gulf and Iraq/Afghanistan war veterans are at higher alcohol use disorder risk than nondeployed veterans, but further studies with increased power are needed to assess substance use disorder risk in Gulf War veteran populations.

Keywords: Afghan Campaign; Gulf War; Iraq War; alcohol-related disorders; meta-analysis; review; substance-related disorders; veterans' health.