

Title: Alcohol and substance use disorders in Gulf War veterans: A systematic review and meta-analysis

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Presenters Biography:

Dr Helen Kelsall is a public health physician/epidemiologist who is a Senior Research Fellow at the Monash Centre for Occupational and Environmental Health. She was a lead investigator on the 2000-02 and 2011-12 Australian Gulf War Veterans' Health Study and other collaborative studies investigating physical, psychological and social health and wellbeing in military, veteran and working populations.

Abstract

Background: Gulf War veterans have been found to be at increased risk of psychological disorders such as posttraumatic stress disorder and depression, although less attention has been paid to other disorders such as alcohol or substance use disorders.

Aims: To conduct a systematic review and meta-analysis of studies which compared alcohol use disorder and substance use disorders in Gulf War veterans and in a comparison group of non-deployed military personnel.

Methods: Literature was searched (1990-2014) in multiple electronic databases (Medline, Medline-In-Process, PsycINFO, Embase, Published International Literature on Traumatic Stress, Cochrane Library) and grey literature. Studies were assessed for eligibility and quality, including risk of bias according to established criteria. The prevalence of alcohol use disorder and substance use disorder was assessed across studies and subgroup analysis was used to assess sources of variability.

Results: Nine studies met the inclusion criteria, seven were included in the meta-analysis of alcohol, and three were included in the meta-analysis of substance use disorders. The nine studies included Gulf War veteran and comparison groups from the United States of America (n=6), Australia (n=1), the United Kingdom (n=1), and Canada (n=1). Pooled analysis based on the random-effects model yielded a summary odds ratio of 1.33 (95% CI: 1.22, 1.46) for alcohol use disorders and 2.13 (95% CI: 0.96, 4.72) for substance use disorders among Gulf War veterans compared with non-deployed military personnel.

Discussion: The findings indicate that Gulf War veterans are at higher risk of alcohol use disorders but further studies with increased power are needed to assess the risk of substance use disorders in veteran populations. Alcohol use disorders are important psychological and medical conditions for clinicians and policymakers to be aware of in assessing and managing Gulf War veterans' health.