



Supporting
Military Families
Through Research
and Outreach

PUTTING RESEARCH TO WORK FOR MILITARY FAMILIES

Predicting Alcohol and Drug Abuse in Persian Gulf War Veterans: What Role do PTSD Symptoms Play?

Shipherd, J.C., Stafford, J., & Tanner, L.R. (2005). Predicting alcohol and drug abuse in Persian Gulf War veterans: What role do PTSD symptoms play? *Addictive Behaviors*, 30, 595-599.



Longitudinal data was collected in three time points: a). immediately upon returning from deployment, b). 18-24 months post deployment, and c). six years post deployment. 1,006 Persian Gulf War Veterans were studied to evaluate the use of alcohol and drugs to cope with three symptom clusters of PTSD (i.e., arousal, avoidance, and re-experiencing). PTSD symptoms 18-24 months post deployment were correlated with alcohol use.

Key Findings:

- Among Persian Gulf War Veterans, alcohol abuse was negatively correlated with education and marital status, and positively correlated with PTSD symptoms and self-reported alcohol problems 18-24 months post deployment.
- Drug abuse was negatively correlated with age and marital status, and positively correlated with PTSD symptoms and drug problems 18-24 months post deployment.
- Alcohol abuse (six years post deployment) could be predicted by education, alcohol problems at time of deployment, and alcohol problems 18-24 months after deployment.
- Drug abuse (six years post deployment) could be predicted by PTSD arousal symptoms and drug problems (both at deployment and 18-24 months post deployment).
- The relationship between PTSD arousal symptoms and drug abuse was interpreted as evidence supporting the use of drugs as a tool for “self-medication.”

Implications for Programs:

- Programs may be developed to pair Soldiers upon their return from deployment with more experienced mentor Soldiers who can help them with healthy strategies to deal with the stress of reintegrating into home and family life.
- Programs may consider education and training for Soldiers’ friends and family members to help them identify and encourage help seeking for a Soldier’s problematic drinking and drug use behaviors.
- Programs may be provided while Soldiers are still deployed to raise awareness of challenges they may face when reintegrating into home and family life.

Implications for Policies:

- Policies may recommend that Service members be assessed and treated for problematic drinking or illicit drug use prior to deployment.
- Policies may recommend regular evaluations following return from deployment to assess stress, coping, and substance use.
- Policies may recommend targeted intervention for any Soldiers who reported drug or alcohol use prior to deployment, or in any follow up evaluations.

Avenues for Future Research:

- Future research may consider examining the post-deployment transition by looking at Soldiers’ mental and physical health immediately following transition and six months later, in addition to 18 – 24 months post-deployment.
- Future studies may consider efforts to improve response rates among younger military personnel and discharged military personnel who may be disproportionately impacted by drug and alcohol use.
- Future research could replicate this study with Veterans of the wars in Iraq and Afghanistan.

Prepared by the Military REACH Team.

For additional information, please visit reachmilitaryfamilies.umn.edu

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Background Information

Methodology:

- Three waves of longitudinal data were collected beginning in 1991 with 2,929 military personnel returning from the Persian Gulf War. They were surveyed again by mail 18 – 24 months post deployment, and again 6 years following deployment.
- Participants completed measures of war exposure, stress, and psychological outcomes (time 1), PTSD, alcohol, and drug abuse (time 2), and alcohol and drug abuse (time 3).
- Researchers used a three-step hierarchical regression to predict alcohol / drug abuse.

Participants:

- 1,006 Veterans who had returned from the Persian Gulf War.
- The average age of the sample was 38.1 years.
- Most respondents were Caucasian (92%) and married (67%). Most had some college education (65%).
- Most respondents were also still in the military or in the Reserves (54%)

Limitations:

- Despite the large initial sample size, attrition rates were high, with only a 44% response rate at time 3.
- The sample size of drug abusers at time 3 is 3%, or 30 respondents. This low sample size may bias response rates.
- The theoretical justification for the selection of 18 – 24 months for the time 2 follow-up survey is unclear.

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