

Putting Research to Work for Military Families



Focus:
Multiple
Branches

Smokeless Tobacco Use Related to Military Deployment, Cigarettes and Mental Health Symptoms in a Large, Prospective Cohort Study Among US Service Members

Hermes, E. D. A., Wells, T. S., Smith, B., Smith, T. C., Boyko, E. J., Gackstetter, G. G., & Miller, S. C. (2012). Smokeless tobacco use related to military deployment, cigarettes and mental health symptoms in a large, prospective cohort study among US service members. *Addiction*, 107(5), 983-994. doi:10.1111/j.1360-0443.2011.03737.x

SUMMARY: Survey data from the Millennium Cohort Study were utilized to examine rates of smokeless tobacco initiation and persistence in relation to deployment, combat, occupation, and mental health symptoms. Initiation and continuation of smokeless tobacco use were associated with deployment frequency, exposure to combat, and stress.

KEY FINDINGS:

- Exposure to combat and having had more frequent deployments increased the odds of smokeless tobacco initiation and persistence.
- Smokeless tobacco initiation was associated with stress-related PTSD symptoms, as well as alcohol use and smoking nicotine.
- Younger, male, less educated populations and those who served in the Army or Marine Corps were more likely to begin smokeless tobacco use.
- Initiation of smokeless tobacco use was more likely for those who smoked nicotine (either currently or in the past) than for Service members who had never smoked tobacco.

IMPLICATIONS FOR PROGRAMS:

Programs could:

- Offer tobacco prevention and treatment that address issues of multiple deployments, combat exposure, alcohol consumption, and PTSD symptoms
- Provide prevention and intervention workshops for smokeless tobacco that target high-risk groups, including Service members who smoke nicotine products
- Disseminate information regarding the negative effects of smoking on health outcomes

IMPLICATIONS FOR POLICIES:

Policies could:

- Advise that current tobacco smoking cessation resources be expanded to include smokeless tobacco
- Support programs that address tobacco cessation among Service members, including smokeless tobacco
- Implement rewards for reduction in the use of smokeless tobacco

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METHODS

- The current study is a prospective cohort study utilizing data from the Millennium Cohort Study.
- Participants completed both baseline (July 2001–June 2003) and follow-up (June 2004–January 2006) self-report questionnaires.
- Smokeless tobacco use was measured with a single-item question that asked whether the participant had used smokeless tobacco in the past year.

PARTICIPANTS

- The study sample included 45,272 Service members.
- Seventy-three percent of participants were male; the average age was 35 years (SD = 9); and 74% were enlisted personnel and 26% were officers.
- Forty-eight percent of participants were Army, 30% Air Force, 18% Navy or Coast Guard, and 4% Marine Corps.
- The ethnic composition of the sample was: 72% White, 12% Black, 8% Asian-American, and 8% other.

LIMITATIONS

- Participants who remained in the study for the post-test may differ from those who withdrew, which may bias results.
- Tobacco use, psychiatric diagnosis, alcohol use, and PTSD symptoms were measured by self-report questionnaires, which can be subject to reporting bias.
- The majority of participants were male which may reduce the generalizability of results to female Service members.

AVENUES FOR FUTURE RESEARCH

Future research could:

- Assess the potential risk for mild traumatic brain injury to increase the risk for smokeless tobacco initiation and persistence
- Examine the experiences of the spouses of tobacco using Service members, considering the influence of partners on tobacco use and partners' potential role in helping Service members quit using tobacco products
- Replicate the current study with a more representative sample based on gender and ethnicity

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