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Headache Disorders in the Millennium Cohort: Epidemiology and Relations With Combat Deployment

Jankosky, C. J., Hooper, T. I., Granado, N. S., Scher, A., Gackstetter, G. D., Boyko, E. J., & Smith, T. C. (2011). Headache disorders in the millennium cohort: Epidemiology and relations with combat deployment. *Headache: The Journal of Head and Face Pain*, 51(7), 1098-1111. doi:10.1111/j.1526-4610.2011.01914.x

SUMMARY: Service members from all branches of the military completed paper-and-pencil surveys as part of the Millennium Cohort Study. Researchers were interested in exploring the association between deployment and combat exposure with migraine and headache disorders. Results indicate that Service members who had been deployed were more likely to experience new onset headaches, including migraines, recurrent severe headaches, and headaches that "bother you a lot."

KEY FINDINGS:

- The prevalence of headache conditions (i.e., migraines, recurrent severe headaches, and headaches that "bother you a lot") largely paralleled the rates among civilian population (e.g., 3-9% for men, and 10-27% for women).
- Experiencing a combat deployment significantly increased a Service member's likelihood of experiencing new onset headache conditions (1.72 times more likely for men, 1.84 times more likely for women).
- Several other factors also were associated with headache conditions; Service members who were younger, enlisted, Army Soldiers, and those who have a diagnosis of posttraumatic stress disorder, depression, or other anxiety disorders were more likely to have headache problems.

IMPLICATIONS FOR PROGRAMS:

Programs could:

- Distribute information headache risk factors, symptoms, and treatment options (e.g., over the counter medications, behavior changes, seeking medical treatment)
- Educate their staff by offering continuing education regarding headache conditions (e.g., when to recommend seeking professional assistance, treatment options)
- Offer support groups for Service members and families coping with physical health issues post-deployment, including headache disorders

IMPLICATIONS FOR POLICIES:

Policies could:

- Recommend that practitioners assess and monitor headache-related symptoms or conditions after a Service member receives a diagnosis of PTSD, depression, or anxiety disorders
- Encourage the development of services that address both physical and mental health issues post-deployment
- Promote efforts that mitigate psychological and physical stressors during deployment to reduce the risk of headache disorders post-deployment

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METHODS

- Participants were drawn from the Millennium Cohort Study, a 24-year longitudinal study that follows over 75,000 Service members representing each of the branches.
- The study involved mail-in paper-and-pencil surveys that participants completed between July 2001 and June 2003.
- Deployment information and demographic data were accessed via the Defense Manpower Data Center.

PARTICIPANTS

- Thirty-eight thousand six hundred thirty-one Service members from all branches were included in this study.
- Twenty-five percent of the sample were women.
- No other demographic information about the entire sample was provided in this article.

LIMITATIONS

- This study only examined one aspect of deployment, namely combat experience; however, other features of deployment (e.g., injury, duties, length of deployment) may also play a role in new onset headache conditions.
- The data for the Millennium Cohort study was collected via postal mail; as such, the sample is limited to only those who completed the survey and returned it which may bias the results.
- The researchers only examined specific headache conditions; this narrow scope limits the findings of this study to those specific problems.

AVENUES FOR FUTURE RESEARCH

Future research could:

- Examine whether injury during combat (e.g., Traumatic Brain Injury) plays a role in the connection between combat deployment and headache conditions
- Explore differences in the likelihood of headache conditions of different severity (i.e., comparing mild chronic headaches and extremely severe chronic headaches)
- Investigate how headaches might be impacting other parts of Service members' lives, including work attendance and family relationships

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