This study aims to determine the association between multiple deployments to Iraq and post-deployment mental health problems (e.g., Post-Traumatic Stress Disorder, depression, anxiety), as identified by mental health screening outcomes for U.S. Army soldiers with 1 or 2 deployments to Iraq.

Key Findings:
- U.S. Army active duty soldiers with 2 deployments had odds 66% to 77% higher for screening positive for Post-Traumatic Stress Disorder (PTSD) than soldiers with 1 deployment.
- Positive screenings for PTSD were more prevalent in single, younger, lower ranking enlisted soldiers than those who were married, older, and in higher-enlisted rank.
- Male soldiers and soldiers who were separated were at significantly greater odds of hazardous alcohol consumption, compared to women and those who were married.

Implications for Programs:
- Predeployment screenings of depressive, anxiety and PTSD symptoms as well as hazardous alcohol consumption may be used to help determine individual risk related to multiple deployments.
- Curriculum about mental health issues could be provided to families, particularly after multiple deployments.
- Professional development could be offered to program staff to educate them about the potential challenges military families face after multiple deployments.

Implications for Policies:
- Soldiers’ health and well-being is a public health concern for the US military and civilian community as Soldiers with mental health concerns are discharged to civilian status faster than soldiers without mental health problems. Policy makers should address the potential risks related to discharged Service members with mental health problems (e.g., unemployment, increased risk of living in poverty, lack of veteran programs and health care).
- Services should be available and accessible to Service members and families in need of mental health care, especially after experiencing multiple deployments.
- Increasing the availability and accessibility of services after a second deployment might help improve Service members’ mental health and well-being.

Avenues for Future Research:
- Future research should replicate the current findings, and consider third and fourth deployments, to determine if multiple deployments increase the risk of mental health problems.
- Future research should evaluate longer-term outcomes for multiple deployment.
- Additional studies should include a representative sample of Active, Reserve, and National Guard components from multiple branches of the military.
- Future research should include predeployment screenings to examine mental health longitudinally over multiple deployments.

Prepared by Military REACH Team.
For additional information, please visit http://reachmilitaryfamilies.arizona.edu
**Methodology:**
- Active duty Service members with 1 or 2 deployments were matched based on job type and combat exposure.
- Chi-Square tests of association and t-tests were used to compare demographic and combat exposure variables between Service members with either 1 or 2 Iraq deployments. In addition, logistic regression was used to examine associations between the number of deployments and mental health screening outcomes, and multivariate logistic regression models were used to control for age, sex, race/ethnic background, rank, education, and marital status.

**Participants:**
- 1,322 active duty Army personnel (n = 661 with 1 deployment, 89.7% male; matched with n = 661 with 2 deployments, 90.8% male)
- Ethnic composition: 1 deployment = 65.1% White; 13.6% Black; 11.6% Hispanic; 4.7% Asian; 2.9% Pacific Islander; 2.6% Other. 2 deployments = 65.7% White; 12.9% Black; 10% Hispanic; 4.2% Asian; 4.2% Pacific Islander; 3.8% Other.

**Limitations:**
- Participants were from one installation and may differ from Service members at other installations.
- Self-report in screening instruments are not the same as a diagnostic test for PTSD.
- Without a pretest it is impossible to determine whether there is a cumulative effect of deployment on PTSD (i.e., more time deployed lead to higher levels of PTSD symptoms), or if a second deployment serves as a unique instigator of PTSD (i.e., a second deployment is a unique predictor of PTSD above and beyond any effect of the first deployment).
- Only Service members with one or two deployments were assessed in this study; Service members experiencing more than two deployments might show a different pattern of association between number of deployments and mental health.

### Assessing Research that Works

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**Overall Quality Rating**

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