

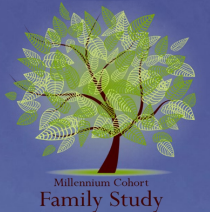
THE MILLENNIUM COHORT PROGRAM

PROTECTING SERVICE MEMBER, VETERAN AND FAMILY HEALTH

A U.S. DEPARTMENT OF DEFENSE STUDY



MILLENNIUM COHORT STUDY



*We are committed to helping
protect service member, Veteran, and family health*

Dear Colleague,

We are pleased to share with you our most recent program updates. In late August 2021, we closed Millennium Cohort Panel 5 and Family Study Panel 2 new participant recruitment, as well as follow-up survey data collection for all of our earlier panels. This is big news for the study team, because it is the first time since 2011 that we enrolled new panels of participants into the Millennium Cohort Program. This year, approximately 75,000 new participants joined our cohorts, which is remarkable given that data collection occurred almost entirely in the midst of a global pandemic. We sincerely thank all who have worked countless hours and supported our team to make this possible.

This newsletter includes new scientific publications that the research team has recently published. Results of these studies have been briefed to knowledge transition partners. We hope you continue to take pride in being an important partner of our research community as we continue to inform and improve the health and readiness of military service members, Veterans, and their families.

Very sincerely,

Rudy Rull, PhD, MPH
Principal Investigator
Millennium Cohort Study

Valerie Stander, PhD
Principal Investigator
Millennium Cohort Family Study
Millennium Cohort Adolescent Study

Sexual Health in Service Women¹

Sexual health of service women was found to be negatively impacted by recent combat deployment and sexual assault. Post-traumatic stress disorder (PTSD) mediated the associations of recent combat deployment and sexual assault with sexual health difficulties. Some military factors (i.e., service branch, component, paygrade) were associated with sexual health difficulties among service women. Findings indicate that effective treatment of PTSD may mitigate sexual health issues.

Comparing Different Measures of PTSD²

To assist in the longitudinal assessment of PTSD spanning the transition between the DSM-IV and DSM-V, we compared the PTSD Checklist-Civilian version (PCL-C) with the PCL for DSM-5 (PCL-5) in a sample of 1,921 service members. There was substantial to excellent agreement when comparing individual items, frequency of probable PTSD, and sum scores; and nearly identical associations with comorbid conditions. Our results provide support that PTSD can be successfully assessed and compared over time with either PCL instrument in veteran and military populations.

Impacts of Military Factors on Sleep³

This study examined military factors in relation to the development and reoccurrence of short sleep duration (≤ 5 hours or 6 hours) and insomnia symptoms (i.e., trouble falling asleep or staying asleep in the past month) over a 3-15 year follow-up period. Military factors consistently associated with an increased risk for development and/or reoccurrence of short sleep duration and insomnia symptoms included active duty service, Army or Marine Corps service, combat deployment, and longer than average deployment lengths. Officers and noncombat deployers had decreased risk for either poor sleep characteristic. Length of service and separation from the military were complex factors; each lowered risk for ≤ 5 hours sleep but increased risk for insomnia symptoms. Findings suggest that efforts to improve sleep prioritization and implement interventions targeting at-risk military populations, behaviors, and other significant factors are warranted.

PTSD, Negative Affect, and Aggression among Domestic Partners⁴

Increasing rates of posttraumatic stress disorder (PTSD) in military populations may indicate heightened risk for aggression, including aggression among domestic partners. Using longitudinal data from the Millennium Cohort Study, we evaluated the association of PTSD symptom clusters and comorbid conditions as predictors of met criteria incidents of domestic abuse (physical and psychological) from DoD Family Advocacy Program (FAP) Central Registry data. Among 54,667 active-duty personnel who responded to the 2011 survey, FAP records documented met criteria incidents of emotional or physical domestic abuse in the study period for 501 participants (1%). Results showed that certain aspects of PTSD and behavioral health problems predicted incidents. In particular, general PTSD symptoms (e.g., anger/irritability, sleep disruption) and comorbid alcohol dependence were stronger predictors than trauma-specific PTSD symptomology (e.g., reexperiencing, hypervigilance). These results indicate that clinicians should consider the interpersonal consequences of PTSD and related behavioral problems.



For more information on recent publications, including links to full-text, please visit the study websites: millenniumcohort.org and familycohort.org



Posttraumatic Growth among Service Members⁵

Research on posttraumatic growth (PTG) after traumatic experiences has raised questions on measurement, validity, and clinical utility. We longitudinally examined PTG among deployers (n=8,732), who screened negative for PTSD and depression at time 1, using a measure that improved upon previous psychometric issues. A strong inverse correlation was found between PTG scores at time 2 and new onset mental health problems (PTSD, depression), where lower growth scores correlated with worse mental health (i.e. higher PTSD or depression screening scores). Only 5% of participants who screened positive for a mental health problem at time 2 experienced positive growth. Results suggest that measurement of PTG is not independent from mental health problems following combat experiences and thus challenge the clinical utility of the PTG construct.

Opioid Use among Military Spouses and Their Service Member Partners⁶

This study explored the extent to which military spouses' obtainment of opioids is associated with their service member partners' obtainment of opioid prescriptions, in addition to other factors such as service member health, state prescribing patterns, and sociodemographic characteristics. Findings suggest that reducing the number of long-term and high-risk opioid prescriptions to service members may subsequently reduce the number of similar prescriptions obtained by their spouses. Reducing the number of service members and spouses at risk for adverse events may prove to be effective in stemming the opioid epidemic and improve the overall health and safety of military spouses, and thus, the readiness of the U.S. Armed Forces.

Sources

¹ Kolaja CA, Schuyler AC, Armenta RF, Orman JA, Stander VA, LeardMann CA. Sexual health difficulties among service women: the influence of posttraumatic stress disorder. *J Affect Disord.* 2021 Sep 1;292:678-686. doi: 10.1016/j.jad.2021.05.089. Epub 2021 Jun 5. PMID: 34157663.

² LeardMann CA, McMaster HS, Warner S, Esquivel AP, Porter B, Powell TM, Tu XM, Lee WW, Rull RP, Hoge CW; Millennium Cohort Study Team. Comparison of Posttraumatic Stress Disorder Checklist Instruments From Diagnostic and Statistical Manual of Mental Disorders, Fourth Edition vs Fifth Edition in a Large Cohort of US Military Service Members and Veterans. *JAMA Netw Open.* 2021 Apr 1;4(4):e218072. PMID: PMC8080232.

³ Cooper AD, Kolaja CA, Markwald RR, Jacobson IG, Chinoy ED. Longitudinal associations of military-related factors on self-reported sleep among U.S. service members. *Sleep.* 2021 Jul 3:zsab168. Epub ahead of print. PMID: 34216467.

⁴ Valerie A. Stander, Kelly A. Woodall, Sabrina M. Richardson, Cynthia J. Thomsen, Joel S. Milner, James E. McCarroll, David S. Riggs, Stephen J. Cozza & for the Millennium Cohort Research Team (2021) The Role of Posttraumatic Stress Symptoms and Negative Affect in Predicting Substantiated Intimate Partner Violence Incidents Among Military Personnel. *Military Behavioral Health.* 2021 Aug 2. Epub ahead of print.

⁵ Jacobson IG, Adler AB, Roenfeldt KA, Porter B, LeardMann CA, Rull RP, Hoge CW. Combat Experience, New-Onset Mental Health Conditions, and Posttraumatic Growth in U.S. Service Members. *Psychiatry.* 2021 Aug 2:1-15. Epub ahead of print. PMID: 34340639.

⁶ Sparks AC, Radakrishnan S, Corry NH, McDonald D, Carlson K, Carballo CE, Stander V. Associations between spouse and service member prescriptions for high-risk and long-term opioids: A dyadic study. *Addict Behav Rep.* 2021 Jun 12;14:100364. PMID: PMC8219988.



For more information on recent publications, including links to full-text, please visit the study websites: millenniumcohort.org and familycohort.org

