



RESEARCH BRIEF

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Risk Factors for Homelessness among Post-9/11 Era Veterans

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What do we know?

Understanding what experiences and/or characteristics place Veterans at an increased (or decreased) risk of homelessness is fundamental for shaping effective approaches to prevent homelessness among Veterans. Thus, a number of prior studies have investigated risk factors for homelessness among Veterans.¹⁻⁹ On the one hand, these studies show that Veterans share certain common risk factors for homelessness with the broader, non-Veteran population. These factors include adverse childhood experiences,^{1,7} mental health issues,^{1,5} substance use disorders, economic shocks such as the loss of employment,² and more limited familial or social support networks.⁷ On the other hand, existing research points to experiences unique to military service that may contribute to an increased risk of homelessness among Veterans. These service-specific risk factors include post-traumatic stress disorder (PTSD),^{5,8} combat deployment,⁵ and having a negative discharge from the military.^{3,5,9}

To date, there are few studies that have examined risk factors for homelessness among post-9/11 era Veterans. Moreover, prior studies conducted among Veterans of this era are limited by their reliance exclusively on VA data (thus excluding Veterans not using VA services) and on retrospective recall about military experiences that often occurred far in the past, which leads to inaccurate reporting. Consequently, we lack a comprehensive and nuanced understanding of the factors that make post-9/11 era Veterans more or less likely to experience homelessness.

New information provided by the study

We used data from the Millenium Cohort Study (MCS) to examine risk factors for homelessness among post-9/11 era Veterans.^{10,11} The MCS prospectively measures the health impacts of military service during and after service members' military careers. Since 2001, over 200,000 service members have been enrolled. We analyzed data from 49,323 enrolled Veterans who answered survey questions on their experiences of homelessness after leaving the military. Among these Veterans a total of 1,071 (2.2%) reported becoming homeless after separating from the military. We used logistic regression to estimate the relative impacts of specific characteristics and experiences on the risk of homelessness. These included demographic and military characteristics, military separation characteristics, mental and physical health diagnoses, and stressful life events.

Table 1 summarizes the results of our final model, which included all of the predictors of homelessness that we considered. The top half of the table identifies which predictors were found to be associated with a higher likelihood of experiencing homelessness, whereas the bottom half of the table indicates that the model did not find a statistically significant relationship between the predictor and the likelihood of reporting homelessness. In other words, the model did not provide evidence that there was a relationship between homelessness and the predictors in the bottom half of the table once other predictors were taken into account.

A few key findings from Table 1 merit particular attention:

- Female Veterans were less likely to experience homelessness than male Veterans.
- Black, non-Hispanic Veterans were more likely to experience homelessness than white, non-Hispanic Veterans.
- Veterans who identified as gay, lesbian or bisexual were more likely to experience homelessness compared to Veterans who identify as heterosexual.
- In terms of education, Veterans with less formal education were more likely to experience homelessness following separation from the military compared to Veterans with an associate's degree or higher.
- Relative to Veterans separating from the military as officers, Veterans who were junior enlisted personnel or senior enlisted personnel were more likely to experience homelessness.
- Compared to Veterans who received an honorable discharge, Veterans who received a general discharge or an other than honorable discharge both were more likely to subsequently become homeless.
- Veterans who served in the military for more than 20 years were less likely than those who served for less than 20 years to become homeless. Service members with more than 20 years of service are generally eligible for military retirement benefits, which may explain this protective effect.
- Apart from a diagnosis for bipolar disorder, which was associated with a higher likelihood of homelessness, none of the mental health, alcohol use, or physical health predictors had a statistically significant relationship with experiencing homelessness. This is likely due to the interrelationships between these predictors and other psychological and military predictors

(e.g., social support, discharge status, adverse childhood experiences), which may have dampened the relationship between these predictors and experiencing homelessness.

- Veterans who reported that their family and friends were not at all supportive, a little supportive, or moderately supportive all had a higher likelihood of experiencing homelessness than Veterans who reported extremely supportive family and friends.
- Deployment and combat exposure were not associated with experiencing homelessness following separation from the military.
- A number of life stressors were associated with homelessness, including childhood traumatic experiences, disabling injury, and being physically assaulted.

In sum, many of the risk factors of homelessness among post-9/11 Veterans identified in the current study mirror prior studies on this topic among the general population and among earlier generations of Veterans. In particular, our findings provide additional support for the well-documented relationships between adverse childhood experiences, lower social support, and disability and the risk for becoming homeless. In finding higher odds of homelessness among black Veterans as compared to their white counterparts, our results also reiterate prior evidence of racial disparities in the risk of homelessness, a topic that deserves closer attention from a policy and programmatic perspective to ensure more equitable outcomes for Veterans. We likewise found associations between post-discharge homelessness and levels of education and military pay grade. This is likely because education and pay grade serve as socioeconomic indicators related to income and post-military employment prospects.

On the other hand, our study differs from prior research in that we did not find large, positive associations between mental health disorders and homelessness that have been identified in prior studies.

Two key findings from our study provide more novel contributions toward understanding the risk of homelessness among Veterans: the impacts of sexual orientation and discharge status. Our study is the first to indicate that identifying as gay, lesbian or bisexual is associated with an increased risk of homelessness among military Veterans. Additionally, our findings are consistent with one previous study³ in showing that those with general or other than honorable military discharges had substantially increased odds for subsequently becoming homeless.

These findings shed new light onto the risk and protective factors associated with experiencing homelessness in post-9/11 Veterans. Future research should examine mechanisms that may be causing these associations to occur and, further, develop policy and programmatic responses to reduce the rate of homelessness among groups of high-risk Veterans identified in the current study.

Table 1: Summary of relationship between demographic, military and separation factors, mental, physical and social health, and life experiences and homelessness among Millennium Cohort Study participants (n=49,323)

Millennium Cohort Study participants with the following characteristics were more likely to experience homelessness:

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| <ul style="list-style-type: none"> ▪ Male ▪ Black, non-Hispanic (compared to white, non-Hispanic) race ▪ Having less than a college degree (compared to having with a college degree) ▪ Identification as a gay, lesbian or bisexual (compared to heterosexual) ▪ Active duty personnel with general or other than honorable discharge (compared to honorably discharged active duty personnel) ▪ Separated with less than 20 years of service | <ul style="list-style-type: none"> ▪ Enlisted (compared to officer) ▪ Diagnosed with manic-depression ▪ Describing moderate or less social support (compared to those describing stronger levels of support) from family and friends ▪ Reported history of childhood trauma ▪ Reported history of a disabling injury ▪ Reported history of being physically assaulted |
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The following characteristics were *not* associated with homelessness among Millennium Cohort Study participants:

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| <ul style="list-style-type: none"> ▪ Marital status ▪ Age ▪ Military occupation ▪ Branch of service ▪ Reserve or National Guard service members versus active duty who were honorably discharged ▪ Positive screen for major depression ▪ Positive screen for suicidal ideation ▪ Positive screen for PTSD ▪ Positive screen for panic disorder/other anxiety | <ul style="list-style-type: none"> ▪ Positive screen for alcohol problems ▪ Diagnosed with schizophrenia ▪ Diagnosed with hepatitis ▪ Self-assessed general health ▪ Body mass index ▪ Deployment experiences ▪ Reported history of financial problems ▪ Reported history of multiple moves ▪ Reported history of unplanned pregnancy ▪ Reported history of sexual assault or harassment |
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References

1. Tsai J, Rosenheck RA. Risk Factors for Homelessness Among US Veterans. *Epidemiol Rev.* 2015;37(1):177-195. doi:10.1093/epirev/mxu004.
2. Metraux S, Cusack M, Byrne TH, Hunt-Johnson N, True G. Pathways into homelessness among post-9/11-era veterans. *Psychol Serv.* 2017;14(2). doi:10.1037/ser0000136.
3. Gundlapalli A V., Fargo JD, Metraux S, et al. Military Misconduct and Homelessness Among US Veterans Separated From Active Duty, 2001-2012. *JAMA.* 2015;314(8):832. doi:10.1001/jama.2015.8207.
4. Fargo JD, Brignone E, Metraux S, et al. Homelessness following disability-related discharges from active duty military service in Afghanistan and Iraq. *Disabil Health J.* 2017;10(4):592-599. doi:10.1016/J.DHJO.2017.03.003.
5. Metraux S, Clegg L, Daigh J, Culhane D, Kane V. Risk factors for becoming homeless among a cohort of veterans who served in the era of the Iraq and Afghanistan conflicts. *Am J Public Health.* 2013;103(S2):S255-S261.
6. Koegel P, Melamid E, Burnam m A. Childhood risk factors for homelessness among homeless adults. *Am J Public Health.* 1995;85(12):1642-1649. doi:10.2105/ajph.85.12.1642.
7. Rosenheck R, Fontana A. A model of homelessness among male veterans of the Vietnam War generation. *Am J Psychiatry.* 1994;151(3):421-427. doi:10.1176/ajp.151.3.421.
8. Washington DL, Yano EM, McGuire J, Hines V, Lee M, Gelberg L. Risk factors for homelessness among women veterans. *J Health Care Poor Underserved.* 2010;21(1):82-91. doi:10.1353/hpu.0.0237.
9. Gamache G, Rosenheck R, Tessler R. Military Discharge Status of Homeless Veterans with Mental Illness. *Mil Med.* 2000;165(11):803-808. doi:10.1093/milmed/165.11.803.
10. Chesbrough KB, Ryan MAK, Amoroso P, et al. The Millennium Cohort Study: A 21-Year Prospective Cohort Study of 140,000 Military Personnel. *Mil Med.* 2002;167(6):483-488. doi:10.1093/milmed/167.6.483.
11. Ryan MAK, Smith TC, Smith B, et al. Millennium Cohort: enrollment begins a 21-year contribution to understanding the impact of military service. *J Clin Epidemiol.* 2007;60(2):181-191. doi:10.1016/J.JCLINEPI.2006.05.009.