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Increased Risk for Substance Use and Health-Related Problems Among Homeless Veterans

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Abstract

Background and Objectives: The first aim of this study was to compare self-reported causes of homelessness between veterans and nonveterans. A second aim examined whether homeless male veterans were more likely than homeless male nonveterans to experience current problems with addictions, mental health, and physical health. Additionally, a third aim was to compare frequency of emergency room visits and treatment needs between the two groups.

Methods: Secondary data analyses compared male homeless veterans and nonveterans ($N = 353$) enrolled in the Alachua County Point in Time study in central Florida. Participants completed a questionnaire on demographics and health variables. Additional questions included recent emergency room visits and medical or other needs not being met.

Results: Veterans reported higher rates of substance use and mental health problems as a primary cause of homelessness when compared to nonveterans. Homeless veterans were more likely than nonveterans to report current problems with addictions (OR = 6.29, 95% CI: 3.43–11.53, $p < .001$), mental health problems (OR = 4.12, 95% CI: 2.28–7.42, $p < .001$), and physical problems (OR = 1.83, 95% CI: 1.08–3.67, $p < .01$). Finally, over half of homeless veterans (53.1%) reported an ER visit in the past year compared to only 40.9% of nonveterans (OR = 1.73, 95% CI: 1.07–2.80, $p < .05$).

Conclusion and Scientific Significance: Veterans may be more likely to become homeless due to addiction and mental health and over half of homeless veterans are presenting to hospital emergency rooms. Given the greater utilization among homeless veterans, emergency rooms may serve as a prime opportunity to provide brief treatment and referrals for needed services.

INTRODUCTION

Recent estimates suggest that there are currently over 610,000 homeless persons in the United States and of these nearly 10%, or 58,000, are veterans.[1] A recent systematic review and meta-analysis examining studies published between 1987 and 2014 found that veterans

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Declaration of Interest

The authors report no conflict of interest. The authors alone are responsible for the content of writing of this paper.

consistently had greater odds than nonveterans of experiencing homelessness.[2] Homelessness is associated with an array of deleterious health problems, including malnutrition, violence, incarceration, diabetes, tuberculosis exposure, substance use, and mental health diagnoses.[3–5] Additionally, lack of resources available to homeless individuals is associated with disproportionate rates of hospitalization and emergency department utilization.[6]

Among homeless veterans, comorbid mental health and substance abuse problems are highly prevalent, with studies suggesting that nearly half experience significant mental illness and 70% report substance use problems.[7,8] Veterans with comorbid alcohol or drug use disorders have more extensive homeless histories when compared to homeless veterans with only alcohol or drug disorders, while those with no history of substance use disorders have the least extensive homeless histories.[9] Research on veterans has also shown that hazardous drinking increases the risk of homelessness one year later.[10] Furthermore, alcohol use increases length of homelessness and significantly prevents successful exit from homelessness to stable housing.[11–13]

Research has shown that substance use among homeless veterans decreases opportunities for obtaining housing or employment, increases levels of interpersonal conflict, increases risks for HIV infection and other serious health problems, and increases exposure to criminal behavior, whether through arrest or victimization.[14–16,25] Research has also identified recent incarceration as a risk factor for significant mental health and substance abuse among homeless veterans compared to non-homeless veterans.[25] Veterans experiencing housing instability have been found to be at greater risk for mental distress and suicidal ideation compared to veterans with stable housing.[17] Schinka and colleagues[18] found that 12% of older homeless veterans in a housing program reported suicidal ideation, which was predicted by psychiatric disorders and substance abuse. Depression and violent behavior have also been shown to be among the strongest predictors of suicidal behavior among homeless veterans.[19] Current literature suggests that homeless veterans also experience greater odds of chronic physical health problems compared to nonveterans.[20–22] Such medical concerns may include chronic pain or infectious diseases, including HIV and Hepatitis C virus.[23]

Taken together, these findings suggest that homeless individuals, and homeless veterans in particular, represent a vulnerable population and more research and clinical efforts are needed. Homeless male veterans represent a unique study population at significant risk for substance use and mental health problems. The present study sought to contextualize the experience of homeless male veterans by examining reasons for homelessness, current problems, and healthcare utilization in comparison to homeless nonveterans. Specifically, it was hypothesized that homeless male veterans would be more likely than homeless male nonveterans to report substance use and mental health problems as both a cause for homelessness and current problem. Furthermore, it was hypothesized that veterans would be more likely than nonveterans to seek medical services via emergency room visits.

METHODS

Study Design

The present study is a secondary analysis of cross-section data from the 2012 North Central Florida Point in Time survey, collected as a requirement of the U.S. Department of Housing and Urban Development. The purpose of this survey is to gather a census count of homeless persons in a given area in a one or two day period. Access to de-identified data was granted in agreement with the Alachua County Coalition for the Homeless and Hungry, Inc. and approved by the University of Florida Institutional Review Board.

Sample

Homelessness was defined as not having a regular or adequate residence or living in a shelter or other nonpermanent arrangement. Homeless individuals were recruited at shelters or local parks and asked to volunteer for the study. Participants included 353 homeless males who reported being Caucasian or African American. Due to small sample sizes and potential lack of generalizability, those reporting other races ($n = 13$) were excluded from data analysis. Females were also excluded from analyses, as female veterans ($n = 11$) were considerably underrepresented in this dataset.

Measures

Demographic information included race, marital status, and former military status. Additional questions assessed highest level of education and current sources of income, if applicable. The survey also included questions regarding hospital emergency room use in the previous twelve months and if there were services, such as addiction or mental health treatment, which a participant currently needed but was unable to receive. Self-reported primary cause of homelessness was assessed and participants were asked to select one of twenty potential responses, included the following: unemployment, foreclosure/eviction, divorce or breakup, physical or medical problems, mental or emotional problems, alcohol or drug problems, public benefits ended, released from jail, and homeless by choice. Current problems were assessed, including alcohol or drug problems, mental health problems, and physical health problems.

Statistical Analyses

Pearson chi-square analyses were used to compare demographic variables, including marital status, education, and race, between veterans and nonveterans. Significant demographic differences were included as covariates in regression models. Self-reported causes of homelessness were examined using univariate analyses and ranked in order of frequency for both veteran and nonveterans. Binary logistic regression models were fit to compare veterans and nonveterans on addiction, mental health, and physical health problems, while controlling for possible confounding variables identified via univariate analyses.

RESULTS

Participant Characteristics

The present sample of homeless men included 125 (35.4%) veterans and 228 (64.6%) nonveterans. Demographic data are highlighted in Table 1. Veterans and nonveterans reported similar racial backgrounds, 66.4% and 55.7% Caucasian, respectively. The majority of participants, 59.2%, reported being single, while 18.6% reported being divorced and 5.8% reported being married. Veterans were more likely than nonveterans to report marital status as divorced, $\chi^2 = 17.33$, $p < .001$. The most commonly reported level of education was high school diploma or equivalency (41.5%), followed by those reporting less than a high school degree (21.1%), and those with some college (18.2%). Veterans were more likely than nonveterans to have attained higher levels of education, $\chi^2 = 43.86$, $p < .001$. Nonveterans were more likely than veterans to report receiving assistance in the form of food stamps, $\chi^2 = 6.83$, $p = .009$. Homeless veterans reported a higher percentage of unmet needs related to addiction treatment compared to nonveterans (14.1% and 8.3%, respectively), though this difference was short of significant ($p = .054$). Nonveterans were statistically more likely than veterans to report unmet medical care needs, $\chi^2 = 16.90$, $p < .001$.

Self-Reported Causes of Homelessness

The most frequently reported primary causes for homelessness for veterans and nonveterans are itemized in Table 2. Unemployment was the most common reason for homelessness in both groups, being reported by 45.8% of veterans and 64.4% of nonveterans. Alcohol and drug problems ranked second among reasons for homelessness reported by veterans, with 17.8% endorsing this cause. Comparatively, alcohol and drug problems were reported by less than 4% of nonveterans and ranked fifth among primary causes of homelessness. Physical and medical health problems were reported as the primary cause of homelessness for 10.6% of veterans and 6.4% of non-veterans. Less frequently reported causes of homelessness among veterans included mental and emotional problems (5.9%), divorce or break-up (2.5%), and house foreclosure (2.5%). Nonveterans reported less frequent causes including being homeless by choice (4.6%), recent release from jail (4.1%), and divorce or break-up (2.3%).

Current Health-Related Problem

Table 3 shows the comparisons of veterans and non-veterans on several current health-related problems using binary logistic regressions, adjusted for demographic variables. Homeless veterans had greater than six times the odds of reporting current addiction problems when compared to nonveterans, Adjusted Odds Ratio (AOR) = 6.29, 95% Confidence Interval (95% CI): 3.43–11.53, $R^2 = 0.22$. Veterans were also four times more likely than non-veterans to report current mental health problems, AOR = 4.12, 95% CI: 2.28–7.42, $R^2 = 0.15$, and almost twice as likely to report current physical health problems, AOR = 1.83, 95% CI: 1.08–3.09, $R^2 = 0.12$. Homeless veterans also had significantly greater odds than non-veterans of visiting a hospital emergency room in the past year, AOR = 1.73, 95% CI: 1.07–2.80, $R^2 = 0.03$.

DISCUSSION

The present study highlights specific differences that exist between homeless veterans and homeless nonveterans. Veterans, as a subgroup of the homeless population, have differing patterns of utilization and access to health care compared to nonveterans. As many veterans have access to health care benefits through designated Veterans Administration facilities, it might be expected that this benefit would result in better health outcomes. Supporting this idea, the present data show that homeless veterans report fewer unmet needs. However, despite their access to specialty care, homeless veterans were more likely to report emergency department visits in the past year. These findings are consistent with previous research[24] reporting that 41% of their sample only used “mainstream” homelessness services and speak to a potential gap in the continuum of care for veterans. Specifically, homeless veterans appear to underutilize available outpatient and remote clinics that could reduce emergency department visits. This interpretation is consistent with previous research that demonstrated that domiciled VA patients were significantly less likely to frequent emergency departments compared to homeless VA patients.[25]

These findings may be explained by a number of hypotheses. First, it is possible that homelessness in itself results in a decreased ability to access outpatient clinics. Emergency visits may not be self-initiated, but rather result from critical situations that require involuntary transportation. This explanation is supported by the increased rates of mental health and addiction problems reported by veterans in this study. Emergency department costs may also explain this difference, as veterans have access to health insurance that would make these visits less financially burdensome. Furthermore, VA emergency departments may be more centrally located in comparison to outpatient specialty clinics. For example, the Malcom Randall VA Medical Center is located in Gainesville, Florida and may provide easy access to care for homeless veterans in the study area.

Compared to nonveterans, homeless veterans reported higher rates of addiction and mental health problems in the present study and were more likely to attribute their current homelessness to these disorders. While this comorbidity has been well established in the current literature, veterans continue to be disproportionately affected by homelessness and health problems despite efficacious intervention strategies.[7,8] Research has found that multistage housing programs can be successful for reintegrating veterans to independent living despite baseline substance use or mental health problems.[26] A treatment model that includes rapid housing and case management has been effective at reducing substance use and hospitalizations due to psychiatric illness.[27] Faith-based programs have also been found to improve housing and clinical outcomes among homeless veterans who were previously religiously oriented.[28]

Another interesting finding from this research is the higher rates of divorce among the homeless veterans group. Positive marital relationships are associated with several benefits, including social support and a social network[29] and improved mental health.[30] Furthermore, divorce has been associated with negative health behaviors, such as problematic alcohol use.[31] Interventions targeting veteran homelessness should take into account the impact of relationship problems or divorce.

The findings of this research should be considered in light of several limitations. Most notably, the data presented are self-reported and social desirability bias may have affected participant responses. This study also utilized cross-sectional data, thus causality cannot be inferred. Another limitation of the study is the inability to control for the effects of participant age, as this information was not shared with the research team to protect confidentiality. While date of birth was collected in the survey, this information was not available to researchers to protect personal health information. Based on previous research, the authors would hypothesize that homeless veterans might be slightly older than homeless nonveterans. It should also be noted that the questionnaire used was specifically designed for the purpose of the Point in Time survey and no psychometrically validated measures were used to collect the data presented in this study. The findings may also be geographically limited, as all data were collected from participants in the North Central Florida area. The analyses are also limited by a smaller sample size and the collection of data using a Point in Time method, which may not be most conducive to gather information about health care service utilization.

Despite these limitations, the present study adds to the current literature calling for increased attention to homelessness in the United States, especially among veterans. Homeless veterans are at an increased risk for mental illness, substance use, and suicidal ideation. Future research should continue to examine factors associated with homelessness and further our understanding of successful interventions to improve housing and health outcomes. Specific to homeless veterans, further data are needed to understand barriers associated with specialty health care utilization and continuity of care.

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TABLE 1.

Participant characteristics and self-reported needs

	Veterans (*n* = 125)		Non-vets (*n* = 228)			
	N	**(%)**	***N***	**(%)**	χ^2	***p***
Demographics						
Caucasian	83	(66.4)	127	(55.7)	3.83	.050
Divorced	41	(32.8)	32	(14.2)	17.33	<.001
Less than HS education	12	(8.4)	133	(33.8)	43.86	<.001
Receiving Food stamps	66	(52.8)	155	(68.0)	6.83	.009
Unmet needs						
Health care	35	(28.0)	113	(49.6)	16.88	<.001
Shelter	36	(26.7)	104	(45.6)	10.59	.001
Permanent housing	83	(61.5)	148	(64.9)	0.002	.969
Mental health treatment	19	(14.1)	36	(15.8)	0.05	.824
Alcohol/drug treatment	19	(14.1)	19	(8.3)	3.72	.054

TABLE 2.

Top self-reported causes of homelessness

Veterans			Non-veterans		
	N	**%**		***N***	**%**
Unemployment	57	45.8	Unemployment	141	64.4
Alcohol/drug problem	21	17.8	Physical/medical problem	14	6.4
Physical/medical problem	12	10.2	Homeless by choice	10	4.6
Mental/emotional problem	7	5.9	Released from jail	9	4.1
Divorce/break up	3	2.5	Alcohol/drug problems	8	3.7
Foreclosure	3	2.5	Divorce/break up	5	2.3

TABLE 3.

Logistic regression analysis of current problems

	All participants		Veterans		Non-veterans			
	N	%	*N*	%	*N*	%	AOR[a]	95% CI
Addiction problem	88	25.7	58	47.2	30	13.7	6.29***	3.43–11.53
Mental health problem	85	24.9	51	41.5	34	15.5	4.12***	2.28–7.42
Physical health problem	127	37.1	61	49.6	66	30.1	1.83**	1.08–3.09
Emergency room visit	155	44.9	64	52.0	91	41.0	1.73*	1.07–2.80

[a]Odds ratios adjusted for marital status, education, and income;

*$p < .05$;

**$p < .01$;

***$p < .001$.