Psychological Services
2017, Vol. 14, No. 2, 246–249

http://dx.doi.org/10.1037/ser0000132

Intimate Partner Violence, Unhealthy Alcohol Use, and Housing Instability Among Women Veterans in the Veterans Health Administration

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Women U.S. military veterans face particularly high rates of homelessness, which may be associated with psychosocial experiences including unhealthy alcohol use and experience of intimate partner violence (IPV). In this study, we examined clinical social health screening data to assess the association between housing instability and (a) experience of past-year IPV victimization, and (b) unhealthy alcohol use among 554 women receiving primary care from the Veterans Health Administration. Approximately 12% of patients screened reported housing instability. Experience of past-year IPV was associated with increased risk of housing instability (*OR* = 2.10, 95% CI [1.16, 3.81]), with 1 in 5 women screening positive for IPV also reporting housing concern. There was no statistically significant association between current unhealthy alcohol use and housing instability. Findings hold implications for addressing potential housing concerns among women VA patients.

Keywords: intimate partner violence, social health, women veterans, homelessness, unhealthy alcohol use

With a mission to end homelessness among veterans, the Veterans Health Administration (VHA) has instituted programs to identify veterans at risk of homelessness and provide supportive services to reduce veterans' experiences of homelessness. Identifying high-risk populations and correlated conditions can assist with early intervention. Women veterans face particular risk of unstable housing and are more likely to become homeless than both their male counterparts and women who have not served in the military (Fargo et al., 2012).

Research on risk factors associated with homelessness among veterans, primarily focused on male veterans, has found associations with demographic (e.g., age, race, income), clinical (e.g., mental health), and experiential (e.g., trauma) characteristics (Fargo et al., 2012; Tsai, Link, Rosenheck, & Pietrzak, 2016). Analysis of data from VHA electronic medical records revealed associations between housing instability and demographic characteristics (younger age, non-White race, unmarried status, and lower income; Montgomery, Dichter, Thomasson, Fu, & Roberts, 2015) and clinical characteristics (mental health conditions, alcohol use disorder; Montgomery, Dichter, Thomasson, Roberts, & Byrne, 2015) among women veterans.

Experience of intimate partner violence (IPV) victimization is a particularly salient factor in increasing likelihood of housing instability among women in the general population (Pavao, Alvarez, Baumrind, Induni, & Kimerling, 2007) and women veterans in particular (Byrne, Montgomery, & Dichter, 2013; Hamilton, Poza, & Washington, 2011; Tsai, Rosenheck, Decker, Desai, & Harpaz-Rotem, 2012; Washington et al., 2010). Experience of IPV can increase risk of homelessness directly due to separation from an abusive partner as well as indirectly, through trauma associated with violence, which may contribute to mental health conditions, substance misuse, and other impacts on financial stability and social networks (Bonomi et al., 2009; Hamilton et al., 2011; Hamilton, Washington, & Zuchowski, 2013; Pavao et al., 2007). Women veterans face particularly high rates of lifetime IPV exposure, with 33% of women veterans reporting lifetime IPV,

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This study was reviewed and approved by the Institutional Review Boards of the Philadelphia VA Medical Center and the VA Pittsburgh Healthcare System. This study was funded by the U.S. Department of Veterans Affairs, Health Services Research and Development (CDA 10-202; Principal Investigator: Dichter) and VISN 4. The contents of this article to do not necessarily represent the views of the Department of Veterans Affairs or the United States Government.

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compared with 23.8% of nonveteran women (Dichter, Cerulli, & Bossarte, 2011).

The relationship between housing instability and substance use is well known. Rates of alcohol misuse and abuse among women experiencing homelessness are significantly higher than among the general population (Upshur, Weinreb, & Bharel, 2014). The rate of mortality attributed to alcohol abuse has been found to be six to 10 times higher among women experiencing homelessness compared with the general population (Baggett et al., 2015).

The VHA routinely screens all patients for recent experience or imminent risk of unstable housing and unhealthy alcohol use, and is currently implementing routine screening of female patients for experience of past-year IPV victimization. With the integrated nature of the VHA health care system and particular emphasis on and resources for preventing homelessness among veterans, there may be unique opportunities to identify women veterans at increased risk of housing instability and to work across programs to meet women's health and safety needs. In this study, we used data from clinical screenings of female VHA patients to examine self-reported risk of housing instability by experience of past-year IPV or current unhealthy alcohol use.

Method

During 2013–2014, all female patients in the women's health clinics at two VHA medical centers in Pennsylvania were routinely asked to complete self-administered paper-based social health screens as part of their primary care visits. These social health screens included screens for housing instability, IPV, unhealthy alcohol use, and, for women able to get pregnant, contraceptive use. The paper-based screens contained no individually identifying information (i.e., no patient name, medical record number, or demographic characteristics). Completed screens from 583 consecutive patients were shared with the research team for analysis, as approved by the Institutional Review Boards of the Philadelphia VA Medical Center and VA Pittsburgh Health Care System.

Instruments/Measures

Housing instability was assessed using the VHA Homelessness Screening Clinical Reminder (HSCR; Montgomery, Fargo, Byrne, Kane, & Culhane, 2013; Montgomery, Fargo, Kane, & Culhane, 2014). This screen includes two questions: (a) In the past 2 months, have you been living in stable housing that you own, rent, or stay in as part of a household? (b) Are you worried or concerned that in the next 2 months you may not have stable housing that you own, rent, or stay in as part of a household? A "no" response to question one or "yes" response to question two indicates housing instability.

Experience of past-year IPV was assessed using the five-item Extended Hurt, Insult, Threaten, Scream (E-HITS) scale (Chan, Chan, Au, & Cheung, 2010; Sherin, Sinacore, Li, Zitter, & Shakil, 1998). The E-HITS asks how often in the past year (from 1 = *never* to 5 = *frequently*) a current or former partner: "physically hurt you," "insulted or talked down to you," "threatened you with harm," "screamed or cursed at you," or "forced you to have sexual activities." The five-item scale has a score range from 5–25; we defined past-year IPV as a score of ≥7 on the E-HITS scale, which is the recommended cutpoint for optimal sensitivity and specificity (Iverson et al., 2015).

Past-year unhealthy alcohol use was measured with the three-item Alcohol Use Disorders Identification Test (AUDIT-C), which asks: (a) how often an individual has a drink containing alcohol, (b) how many standard drinks one has on a typical day, and (c) how often one has six or more drinks on a single occasion (Bush, Kivlahan, McDonell, Fihn, & Bradley, 1998). The AUDIT-C is scored on a scale of 0–12, with unhealthy alcohol use defined as a score of ≥3, based on the recommended cut-off for women (Bradley et al., 2003).

Analyses

We conducted bivariate cross-tab analysis with measures of odds ratios and 95% confidence intervals to assess the relationships between housing instability and (a) past-year IPV, and (b) unhealthy alcohol use. Respondents with missing data on the study variables were excluded from the analysis.

Results

There were missing data on housing stability for 29 patients, reducing the overall sample size to 554. Of these, 70 (12.6%) reported housing instability. Overall, 17% (90 of 541 with complete E-HITS data) screened positive for past-year IPV on the E-HITS screen and 19% (99 of 520 with complete AUDIT-C data) screened positive for unhealthy alcohol use on the AUDIT-C screen. As reflected in Table 1, odds of housing instability were more than two times higher among those patients who also reported experience of past-year IPV (*OR* 2.10, 95% CI [1.16, 3.81]). One in five women who reported experience of past-year IPV also reported current housing instability (vs. one in 10 women who screened negative for past-year IPV). We did not find a statistically significant association between screening positive for unhealthy alcohol use and housing instability (*OR* 1.07, 95% CI [0.55, 2.08]), with approximately 12% of both groups reporting housing instability.

Discussion

Findings add to our understanding of risk factors for homelessness among female VHA patients. In particular, the association between past-year IPV and housing instability is consistent with existing knowledge about the overlap between the conditions. This

Table 1
Percent and Odds of Housing Instability by Experience of Past-Year Intimate Partner Violence and Unhealthy Alcohol Use

Risk factors	Total *n*	Housing instability %	Housing instability *OR* [95% CI]
Intimate partner violence[a]			
No (E-HITS Score < 7)	451	10.6	
Yes (E-HITS Score ≥ 7)	90	20.0	2.10 [1.16, 3.81]
Unhealthy alcohol use[b]			
No (AUDIT-C Score < 3)	421	12.8	
Yes (AUDIT-C Score ≥ 3)	99	12.0	1.07 [.55, 2.08]

Note. *OR* = odds ratio; CI = confidence interval.
[a] 13 (2.3%) individuals with missing IPV data excluded. [b] 34 (6.1%) individuals with missing alcohol use data excluded.

study further adds to that literature by using a novel measure of housing instability and quantitatively measuring the association among a female VHA patient population. That we did not find a statistically significant association between unhealthy alcohol use and housing concern among women veterans stands in contrast to findings from alcohol use disorder diagnoses documented in VA medical records showing an association between these conditions (e.g., Montgomery et al., 2015). It may be that the threshold for diagnosis differs significantly from risk identified on self-report screening measures. To test this, we conducted our analyses with higher AUDIT-C cut-off scores (including scores of 4 or 5) typically used in clinical care and still did not find a statistically significant difference in rates of housing instability.

Among this sample of women seen in women's health clinics at two VA Medical Centers, the proportion screening positive for past-year IPV (17%) is akin to that of a recent survey of a national stratified random sample of VHA primary care users, which found 18.5% screening positive for past-year IPV (Kimerling et al., 2016). Rates of alcohol misuse in this sample were lower than those found in a national mail survey of women VHA patients (19% vs. 27%; Hoggatt, Williams, Der-Martirosian, Yano, & Washington, 2015). This difference may be due to barriers women face to disclosing unhealthy drinking behavior to their clinical provider (Cucciare et al., 2016), which are less prominent when completing a research survey.

Our finding of over 12% of female patients reporting housing instability stands in contrast to the finding of 2.7% of female patients nationwide screening positive for housing instability, identified through documentation in medical records of the HSCR responses (Montgomery et al., 2015). We note that those data do not include women already identified as being homeless or receiving homelessness services as the HSCR is not assigned in the electronic medical record for patients already identified as homeless (Montgomery et al., 2013). Furthermore, women may be more willing to disclose such experiences on self-administered versus face-to-face screening.

Limitations

Study findings must be considered in light of methodological limitations. This study included data from over 500 female VA primary care/women's health patients from two regional medical centers; however, the sample was not intended to be, and was not necessarily, representative of the larger population of female VHA patients. Social health screens were routinely provided to all patients; we do not have information on how many or the characteristics of patients who chose not to complete a social health screen. Additionally, because the data were de-identified and only included responses to the social health screens, we were not able to assess or control for patient demographic characteristics. It is possible that demographic differences exist among those who screen positive or negative for past-year IPV or unhealthy alcohol use and that such differences also influence experience of housing instability. Because this was a cross-sectional study, we are not able to distinguish the temporal order of events or mechanisms linking IPV or unhealthy alcohol use to housing instability.

Self-report measures used in this study, although validated for this population, are subject to reporting bias. The E-HITS measure is limited in that it does not provide information about the context, impact, or severity of IPV experience and does not measure coercive control or stalking, independent of other forms of violence. This screen is used to identify individuals who may benefit from further IPV assessment rather than to serve as a diagnostic tool. The Homelessness Screening Clinical Reminder used by VHA identifies housing instability, defined as recent (within the past 2 months) or imminent (expected within the coming 2 months) unstable housing; this tool does not provide a certain identification of homelessness or homelessness risk, rather experience of housing stability, based on the respondent's perspective, during a certain time period.

Implications

Despite the limitations, this study indicates a need for efforts to better understand and prevent homelessness among women veterans. Given the increased likelihood of housing instability among women who report past-year IPV, it would be important to assess for and address housing needs among women experiencing IPV. Follow-up to disclosure of IPV should include assessment of recent, current, or imminent housing instability and, if indicated, a plan to increase housing security and stability. Lack of housing alternatives may present a barrier to women becoming independent from an abusive partner (Baker, Billhardt, Warren, Rollins, & Glass, 2010; Clough, Draughon, Njie-Carr, Rollins, & Glass, 2014). Those working with women who have experienced IPV should be aware of housing-related resources for women veterans. Within homelessness prevention services, it may also be important to assess for and recognize the possibility of IPV experience and take steps to protect client safety. Clinicians and staff in homelessness prevention and service programs should receive training in IPV dynamics and safety considerations as well as on resources available to assist women in addressing IPV-related needs. Whereas unhealthy alcohol use may contribute to, or result from, women's housing instability, we saw equal risk of unstable housing among those who did not screen positive for unhealthy alcohol use, indicating the need to focus on housing needs of women who are and are not using alcohol in unhealthy ways.

As an integrated health care system including primary/women's health care, mental/behavioral health care, and social services, the VHA has a unique opportunity to address multiple interrelated social health issues within a single institution. Other settings providing services to women who have experienced IPV and may be at risk for homelessness may also consider assessing related social health risks, based on findings from this study. With high rates of interpersonal trauma experience among women experiencing housing instability, it is important that interventions follow principles of empowerment practice (Busch & Valentine, 2000) and trauma-informed care (Elliott, Bjelajac, Fallot, Markoff, & Glover Reed, 2005), ensuring that care is focused on individual strengths, safety, and self-determination.

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Received April 29, 2016
Revision received September 23, 2016
Accepted November 6, 2016 ■