



# HHS Public Access

Author manuscript

*Am J Mens Health*. Author manuscript; available in PMC 2015 April 30.

Published in final edited form as:

*Am J Mens Health*. 2013 September ; 7(5): 374–381. doi:10.1177/1557988312471842.

## Racial differences in sexual dysfunction among postdeployed Iraq and Afghanistan veterans

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### Abstract

This study examined the racial/ethnic differences in prevalence and risk factors of sexual dysfunction among postdeployed Iraqi/Afghanistan veterans. A total of 3,962 recently deployed veterans were recruited from Houston Veterans Affairs medical center. The authors examined sociodemographic, medical, mental-health, and lifestyle-related variables. Sexual dysfunction was diagnosed by *ICD9-CM* code and/or medicines prescribed for sexual dysfunction. Analyses included chi-square, analysis of variance, and multivariate logistic regression. Sexual dysfunction was observed 4.7% in Whites, 7.9% in African Americans, and 6.3% in Hispanics. Age, marital status, smoking, and hypertension were risk factors for Whites, whereas age, marital status, posttraumatic stress disorder and hypertension were significant for African Americans. For Hispanics, only age and posttraumatic stress disorder were significant. This study identified that risk factors of sexual dysfunction varied by race/ethnicity. All postdeployed veterans should be screened; and psychosocial support and educational materials should address race/ethnicity-specific risk factors.

### Keywords

race/ethnicity; sexual dysfunction; postdeployment; veterans

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### Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

## Introduction

Major advances in disease prevention, service delivery, diagnosis, and treatment in the past two decades have led to significant improvement in various health indicators for most Americans (U.S. Office of Minority Health and Health Disparities, 2007). However, despite these improvements, not all Americans are benefiting equally. Compelling evidence indicates that racial/ethnic disparities in health not only persist but are, in fact, worsening (Morokoff & Gilliland, 1993). Racial/ethnic differences have been observed in many chronic diseases, such as cardiovascular disease, cancer, diabetes, and mental health. In most cases, minority populations such as African Americans and Hispanics experience disproportionate burdens of disease, disability, and death (McBean, Li, Gilbertson, & Collins, 2004; Mensah & Brown, 2007; U.S. Department of Health and Human Services, 2001). These disparities, as suggested by the Institute of Medicine, could result from many factors, including, among others, patient-, system-, and clinical encounter-level factors (Institute of Medicine, 2002).

An important component of sexual health is the ability to engage in fulfilling sexual relationships, but a number of medical conditions and other life changes can affect sexual functioning. Sexual health is essential to overall health and well-being, yet there is a tendency for sexual-health needs to be overlooked in routine health care (Wimberly, Hogben, Moore-Ruffin, Moore, & Fry-Johnson, 2006). Although sexual dysfunction affects quality of life in many ways, epidemiological data are relatively scant (Johannes et al., 2000; Laumann, Paik, & Rosen, 1999; Smith et al., 2009), and these data clearly support that it is an important public health problem. Racial/ethnic differences in sexual dysfunction have been observed but with inconsistent findings. One study, the California Men's Health Study, identified that Hispanic men had increased odds of moderate-to-severe erectile dysfunction relative to White men, whereas African American men were less likely to report moderate-to-severe erectile dysfunction (Smith et al., 2009). Another survey representative of the U.S. population reported that African Americans were more likely to report sexual problems than Whites, whereas Hispanics were less likely to report sexual problems across the categories of sexual dysfunction (Laumann et al., 1999).

The reproductive health of active-duty service members and veterans, a racially and ethnically diverse group, has received very little attention from researchers in the fields of medicine and psychology (Hirsch, 2009; Reddy, Meis, Erbes, Polusny, & Compton, 2011). Many returning veterans have been exposed to a number of traumatic conditions in their combat experience and stressful events in their family life after return (Kauth, 2012). Data indicate that postdeployed Veterans are at greater risk for mental health problems such as posttraumatic stress disorder (PTSD), depression, and substance abuse (Hoge, Auchterlonie, & Milliken, 2006). Such problems are correlated with poor quality of life (Meis, Erbes, Polusny, & Compton, 2010; Shabsigh et al., 1998), and researchers have observed that treatment for sexual dysfunction can result in improved health-related quality of life (Latini et al., 2003).

Given their high risk for sexual dysfunction, the sexual health of recent combat veterans needs to be systematically examined. Eliminating health disparities requires new knowledge

about the determinants of disease and causes of health disparities and effective interventions for prevention and treatment. To that end, it is imperative for us to know whether the determinants of sexual dysfunction vary by racial/ethnic groups among postdeployed Iraq/Afghanistan veterans.

The aim of this study, therefore, was to examine data on all postdeployed Iraq/Afghanistan veterans seeking care at a large Veterans Affairs (VA) medical center, to compare/contrast the variables affecting sexual dysfunction in White, African American, and Hispanic veterans.

## Method

### Data Source

This study was carried out on VA administrative database collected between September 1, 2007, and August 31, 2009, at Houston Michael E. DeBakey VA medical center. The data were from the corporate data warehouse, housed at the Austin Automation Center in Austin, Texas, to provide access to administrative and clinical data sets for research purposes. This study was approved by the Institutional Review Board of Baylor College of Medicine and the Michael E. DeBakey VA Medical Center Research and Development Committee.

### Study Population

This study was cross-sectional in nature, and the analysis included only three major racial/ethnic groups in the United States such as Whites, African Americans, and Hispanics. This study included all male postdeployed Iraq/Afghanistan veterans (discharged from active duty) who presented for care at the inpatient and outpatient clinics of the Michael E. DeBakey VA Medical Center, Houston, Texas, between September 1, 2007, and August 31, 2009. Women veterans were excluded from this analysis because of very small numbers with documented sexual dysfunction who presented at this facility during the study period.

### Data Extraction and Management

Data were gathered on sociodemographic characteristics, such as age, race/ethnicity, marital status, and annual household income of each patient. Data were examined to determine whether participants were from a rural or urban area, based on their home zip-code (Boyko, Koepsell, Gaziano, Horner, & Feussner, 2000).

Depression, PTSD and anxiety disorders, bipolar disorder, and substance abuse/dependence diagnoses were based on *International Classification of Diseases-Ninth Edition ICD 9-CM* codes (Centers for Disease Control and Prevention, 2011). As many previous studies have reported a strong association between PTSD and sexual dysfunction (Hirsch, 2009; Zerach, Anat, Solomon, & Heruti, 2010), this study categorized and considered PTSD as a separate category and aggregated the remaining anxiety-related ICD9-CM codes as "Other Anxiety." This category included panic disorder, generalized anxiety disorder, obsessive-compulsive disorder, and so on. Information on medical conditions such as hypertension and diabetes was also extracted on the basis of ICD9-CM codes. Substance abuse/dependence included both alcohol abuse/dependence and drug abuse/dependence, but not tobacco use.

## Outcome Variable

Sexual dysfunction was identified based on ICD9-CM codes related to sexual health issues and/or by specific medicines, primarily phosphodiesterase-5 inhibitors, PDE-5i (such as viagra, cialis, or levitra) prescribed for erectile dysfunction. ICD9-CM codes for sexual dysfunction included 302.70, 302.71, 302.72, 302.75, 302.9, 607.3, 607.84, 608.87, 608.89, and 799.81. Similarly, the diagnoses of depression, PTSD, other anxiety disorders and bipolar disorders were also based on ICD9-CM codes.

## Statistical Analysis

Overall descriptive statistics were computed for study participants. This study compared veterans with sexual dysfunction to those without. Associations between sexual dysfunction and sociodemographic and clinical characteristics stratified by race/ethnic group were examined, using chi-square analysis for categorical variables (e.g., race, marital status, residency, depression, PTSD, other anxiety, bipolar disorder, substance abuse/dependence, smoking hypertension, and diabetes) and analysis of variance (ANOVA) for continuous variables (e.g., age, annual income). At this exploratory stage, variables that were significant at the  $p < .2$  level in the bivariate analysis were included in the multivariate logistic regression.

Because the sociodemographic and comorbid condition variables differed by race/ethnicity, separate multivariable logistic regression models were run for each racial/ethnic group to determine which variables were most closely associated with having sexual dysfunction. In the final model, race/ethnicity itself was included in the model to see whether racial/ethnic differences exist. In these final multivariate models, a  $p$  value of  $<.05$  was considered significant. The authors also examined interactions between race/ethnicity and some other meaningful covariates. Model fit was assessed with Akaike information criterion (AIC). All descriptive and comparative analyses were carried out using SAS version 9.2 (SAS Institute, Inc., Cary, NC).

## Results

A total of 3962 male postdeployed Iraq/Afghanistan veterans were included in this study (Table 1). More than half (55%) were White, and less than one third (31%) were African American. African Americans were significantly older (33 years) and had a significantly higher prevalence of hypertension (20.1%); however, they were less likely to have PTSD than their White and Hispanic counterparts. Whites were more likely to smoke (23.8%) and have substance-use disorder (8.4%) and less likely to have diabetes (2.1%) than others. In terms of annual income, Hispanics had the lowest annual income (\$21,140) among the three groups.

Based on ICD9-CM codes or the presence of a PDE-5 inhibitor prescription, the overall prevalence of sexual dysfunction was found to be 5.9% ( $n = 234$ ) and 4.7% among Whites, 7.9% among African Americans, and 6.3% among Hispanics. Prevalence of sexual dysfunction was significantly higher among African Americans than Whites ( $p < .001$ ).

Unadjusted odds ratios (ORs) in Table 2 observed that age, marital status, depression, PTSD, and hypertension were associated with sexual dysfunction in all three racial/ethnic groups at the  $p < .2$  level. In addition, other factors associated with sexual dysfunction were rural (vs. urban) residence, “other anxiety,” bipolar disorder, and smoking in Whites; income, “other anxiety,” and diabetes in African Americans; and diabetes in Hispanics.

Results of the multivariate logistic regression revealed that risk factors for sexual dysfunction vary by race/ethnicity (see Table 3). Age appeared as the only significant risk factor ( $p < .05$ ) for sexual dysfunction in all three racial/ethnic groups. However, marital status and hypertension remained significant risk factors ( $p < .05$ ) in Whites and African Americans. In addition, PTSD was a significant risk factor for both African Americans and Hispanics. However, when race/ethnicity was included in the overall multivariable logistic regression model, the OR shows that African Americans were significantly more likely to report sexual dysfunction than Whites (OR = 1.56, 95% confidence interval [CI] = 1.15, 2.11), but the odds for Hispanics failed to reach the significant level (OR = 1.41, 95% CI = 0.93, 2.13). Apart from this, the model revealed that age, marital status, PTSD, and hypertension were significant risk factors at the  $p < .05$  level. Interactions of race/ethnicity with several important covariates such as age, marital status, depression, PTSD, and hypertension were run, but no significant association was observed.

## Discussion

Little is known about sexual dysfunction among recent combat veterans. To our knowledge, this is the first empirical look at racial/ethnic differences in sexual dysfunction among this group. This study examined the racial/ethnic differences affecting prevalence of sexual dysfunction in a cohort of postdeployed Iraq/Afghanistan veterans and the odds of sexual dysfunction associated with sociodemographic variables, comorbid conditions, psychological variables, and lifestyle variables. This study observed that sexual dysfunction was more frequently documented in clinical and administrative data for African American post-deployed Iraq/Afghanistan veterans than Whites, whereas substantial differences between Hispanics and Whites were not observed. This study noted marked differences among the three racial/ethnic groups for some risk factors, including marital status, PTSD, and hypertension, after controlling for other sociodemographic, lifestyle, and comorbid conditions.

Our results indicate that reported sexual dysfunction is quite common in this population, affecting almost 1 in 16 veterans (6%). The estimate of sexual dysfunction observed in the current study is lower than what was observed in an earlier National Health and Nutrition Examination Survey study (Saigal, Wessells, Pace, Schonlau, & Wilt, 2006). However, our findings should be interpreted with caution, as 84% of our study population was very young (18–40 years; overall mean age 31.5 vs. 44 years,  $p < .001$ ).

This study revealed that race/ethnicity was associated with prevalence of sexual dysfunction: African American postdeployed veterans were 1.56 times more likely to suffer from sexual dysfunction than Whites. The increased risk in this group could primarily be attributed to their higher mean age than Whites (33 vs. 31 years;  $p < .05$ ), as age has been considered the

single most important and consistently found risk factor of sexual dysfunction (Selvin, Burnett, & Platz, 2007). In addition, this study observed that, with 1-year increment in age, the likelihood of sexual dysfunction among African Americans increased by 8% compared with increases of 5% and 6% for Whites and Hispanics, respectively. A possible underlying explanation is that, because cardiovascular problems increase with age and are more prevalent in African Americans than Whites (Cooper et al., 2000), the effect of age on sexual dysfunction would be more noticeable among African Americans than among Whites and Hispanics. Our data do not reflect an increased prevalence of diagnosed cardiovascular conditions, but given the chronic and insidious progression of these diseases, subclinical differences may affect sexual function prior to diagnosis. It is also possible that cultural differences may partly explain this finding, as the interpretation of sexual dysfunction and construct of masculinity and body image vary by culture and race (Berger, 1997), as well as the fact that many groups do not discuss this issue with their physicians (Low, Wong, Zulkifli, & Tan, 2002).

This study also revealed that PTSD was associated with increased likelihood of sexual dysfunction, a trend that was evident across race/ethnicity but, surprisingly, failed to achieve significance in Whites. PTSD is characterized by increased irritability and isolation, which may negatively affect their ability to achieve the degree of intimacy needed for satisfying relations (Kotler et al., 2000). Previous studies of PTSD have reported a higher rate of combat exposure among African Americans (Grubaugh et al., 2006) and suggested that a longer history and severity of PTSD symptoms are associated with a worse prognosis for sexual dysfunction (Hirsch, 2009). Unfortunately, this study was unable to account for traumatic events, duration and number of combat missions, or duration and severity of PTSD symptoms. Another study reported that African Americans were significantly less likely to complete treatment than Caucasians ( $p < .001$ ) and that the differences held, even after controlling for education and income (Lester, Resick, Young-Zu, & Artz, 2010). It is possible that White veterans may be more likely to have well-controlled PTSD and better social, family, and psychological support, resulting in decreased impact of PTSD on sexual dysfunction. Further in-depth work is needed to examine this possibility, using data gathered from the Veterans themselves.

Several studies have observed increased odds of sexual dysfunction with hypertension, findings confirmed in our study's White and African American postdeployed Iraq/Afghanistan veterans; but this relationship did not hold true for Hispanics. Sexual dysfunction is often considered an early marker of cardiovascular disease and is a likely outcome of small- and large-vessel disease (Thompson et al., 2005). Studies have identified that the presence of other comorbidities, such as smoking and diabetes, may modulate the association of sexual dysfunction with hypertension (Feldman et al., 2000). In this sample, the low prevalence of hypertension, smoking, and diabetes among Hispanics may limit our ability to detect a significant association with sexual dysfunction.

Results from the present analysis show that married veterans are at increased risk of sexual dysfunction in all three racial/ethnic groups. Men in long-term, partnered relationships may experience more regular demands for sexual activity by their partners, making existing sexual difficulties more salient. The observance of experiential avoidance, couple

adjustment, and interpersonal aggression in a sample of returning Iraqi war veterans and their partners could also partly explain this (Reddy et al., 2011). Appropriate interventions, perhaps including family or couples counseling, may help smooth transition into family life.

A previous study of Vietnam veterans showed higher odds of sexual dysfunction among smokers (Mannino, Klevens, & Flanders, 1994), and another study suggested that the magnitude of this association increased with increasing number of cigarettes smoked (Millett et al., 2006). Apart from its direct influence on hypertension and other cardiovascular disease, cigarette smoking by itself may affect penile erection; as nicotine has direct toxic effects on the vascular endothelium and may inhibit smooth-muscle function through various neurovascular mediators, such as prostacyclin (Salonia et al., 2003). However, in our study this association was observed only in Whites. The higher prevalence of cigarette smoking among Whites is a serious concern, as many of these returning veterans are young adults and at the peak of their reproductive life.

Larger population-based studies have suggested a role of socioeconomic status in the etiology of sexual dysfunction. In this study, increased odds of sexual dysfunction were observed with higher income (Kupelian, Link, Rosen, & McKinlay, 2008; Laumann et al., 1999). However, this finding is in contrast to that of the National Health and Social Life Survey study, in which falling income was associated with a modest increase in erectile dysfunction (Laumann et al., 1999). Higher-income veterans are assumed to have a positive lifestyle and be more likely than less affluent veterans to seek health care to improve symptoms that can negatively affect sexual dysfunction. As high-income veterans in our study tended to be older, higher rates of comorbid conditions such as hypertension and diabetes among them may partially explain this higher association.

Our study has several limitations. Our data cannot be generalized to nonveterans or to women veterans as the data represent a cohort of male postdeployed Iraq/Afghanistan veterans. Although we selected all ICD9 codes and medications of relevance to sexual dysfunction ensuring face validity and likely a high positive predictive value for our definition of sexual dysfunction, the actual sensitivity and specificity of ICD9 codes and medication prescription relative to sexual dysfunction is not known. We believe our results represent an acceptable approximation of the real relationship between race and sexual dysfunction but urge readers to interpret our conclusions with some caution because of the use of administrative data. In addition, as the number of Hispanics reporting sexual dysfunction is small ( $n = 35$ ), the results for Hispanics should also be interpreted with caution. The VA Administrative database precludes a more detailed analysis of additional relevant variables, such as severity and duration of comorbid conditions, traumatic and other stressful events and conditions, treatment for other comorbid conditions, and care from providers outside the Houston VA medical center. Thus, though significant racial/ethnic differences in the likelihood of sexual dysfunction have been observed after adjustment of major risk factors, the issue of residual confounding by other unmeasured or unknown risk factors cannot be ignored. However, men in this study were enrolled in an equal-access health care system, theoretically minimizing the bias of access to health care. Further quantitative and qualitative studies, including assessment of quality of life by race/ethnicity, are needed for developing race-/ethnicity-specific intervention.

## Conclusion

This study observed racial/ethnic differences in the prevalence of and risk factors for sexual dysfunction and revealed that sexual dysfunction was documented more commonly in African Americans than Whites. Our study strongly suggests that all veterans who are coming to postdeployment clinics should be screened for sexual dysfunction, irrespective of their race/ethnic background. Tailoring awareness materials to specific at-risk populations may also be warranted. Information specifically targeting White veterans, for example, could address the importance of quitting smoking as a measure to reduce sexual dysfunction. In all instances, possible cultural differences and attitudes toward self-image by race/ethnicity should be taken into account. Further evaluation of race-/ethnicity-specific psychosocial support and intervention measures should be initiated. The application of new information such as our findings indicate a need to modify the “one size fits all” approach to health promotion programs to boost the efforts of the United States to meet its *Healthy People 2020* goal to eliminate disparities in health.

## Acknowledgments

### Funding

The author(s) disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: G. M. Monawar Hosain was working as an NIDDK K-12 Scholar (NIH Grant K12 DK0083014). This work was also supported in part with resources and the use of facilities of the Houston VA HSR&D Center of Excellence (HFP90-020) and Neurorehabilitation: Neurons to Networks VA RR&D TBI Center of Excellence.

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**Table 1**

Sample Characteristics by Race/Ethnicity (*N* = 3,962)

Characteristics	White ( <i>n</i> = 2,184)	African Americans ( <i>n</i> = 1,221)	Hispanics ( <i>n</i> = 557)	Group Difference
Age in years, mean ( <i>SD</i> )	31.1 (8.2)	33.0 (8.2)	30.6 (7.8)	AA > W, H
Annual income (US\$), mean	25,830	23,340	21,140	W > H
Marital status				<i>p</i> < .001
Never married	778 (35.6)	463 (37.9)	213 (38.2)	
Married	982 (45.0)	482 (39.5)	254 (45.6)	
Separated/divorced/widowed	417 (19.1)	276 (22.6)	87 (15.6)	
Residency				AA, H > W
Rural	329 (15.1)	75 (6.1)	45 (8.1)	
Urban	1,836 (84.1)	1,140 (93.4)	507 (91.0)	
Depression	574 (26.3)	337 (27.6)	152 (27.3)	NS
PTSD	784 (35.9)	360 (29.5)	202 (36.3)	W, H > AA
Other anxiety disorder	556 (25.5)	324 (26.5)	182 (32.7)	H > W, AA
Bipolar disorder	102 (4.7)	29 (2.4)	16 (2.9)	W > AA
Substance abuse/dependence	184 (8.4)	68 (5.6)	30 (5.4)	W > AA, H
Smoking	519 (23.8)	167 (13.7)	63 (11.3)	W > AA, H
Hypertension	298 (13.6)	245 (20.1)	76 (13.6)	AA > W, H
Diabetes	46 (2.1)	56 (4.6)	23 (4.1)	AA, H > W

*Note.* AA = African American; W = White; H = Hispanic; PTSD = posttraumatic stress disorder. Total did not add up 100% for some variables because of missing values. Significant difference at *p* < .017; one-way analysis of variances with Bonferroni correction was used to examine “between-groups” differences for continuous variables and chi-square tests were used to examine the differences for categorical variables.

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**Table 2**

Unadjusted Association Between Sample Characteristics and Sexual Dysfunction by Race/Ethnicity

Characteristics	White ( <i>n</i> = 103)	African American ( <i>n</i> = 96)	Hispanic ( <i>n</i> = 35)
Age	1.06 (1.04–1.08) <sup>‡</sup>	1.12 (1.09–1.15) <sup>‡</sup>	1.07 (1.04–1.11) <sup>‡</sup>
Annual income (US\$)			
20,000	—	—	—
>20,000	1.26 (0.85–1.88)	1.37 (0.90–2.07)*	1.24 (0.62–2.47)
Marital status			
Never married	—	—	—
Married	3.25 (1.83–5.77) <sup>‡</sup>	5.71 (2.87–11.37) <sup>‡</sup>	2.55 (1.11–5.82) <sup>‡</sup>
Separated/divorced/widowed	4.02 (2.25–7.12) <sup>‡</sup>	5.94 (2.87–12.29) <sup>‡</sup>	1.23 (0.36–4.21)
Residency			
Rural	—	—	—
Urban	0.66 (0.40–1.08)*	1.21 (0.48–3.09)	3.06 (0.41–22.9)
Depression			
No	—	—	—
Yes	1.92 (1.28–2.88) <sup>‡</sup>	1.49 (0.96–2.31)*	1.86 (0.92–3.75)*
PTSD			
No	—	—	—
Yes	1.73 (1.16–2.57) <sup>‡</sup>	2.38 (1.56–3.62) <sup>‡</sup>	3.67 (1.79–7.55) <sup>‡</sup>
Other anxiety disorder			
No	—	—	—
Yes	1.47 (0.96–2.25)*	1.58 (1.02–2.45) <sup>‡</sup>	1.23 (0.61–2.51)
Bipolar disorder			
No	—	—	—
Yes	2.05 (1.01–4.18) <sup>‡</sup>	0.86 (0.20–3.69)	0.99 (0.13–7.75)
Substance abuse/dependence			
No	—	—	—
Yes	1.32 (0.69–2.51)	1.14 (0.48–2.71)	1.72 (0.50–5.97)
Smoking			
No	—	—	—
Yes	1.95 (1.29–2.94) <sup>‡</sup>	0.72 (0.37–1.41)	0.72 (0.22–2.43)
Hypertension			
No	—	—	—
Yes	3.08 (1.99–4.76) <sup>‡</sup>	5.71 (3.71–8.77) <sup>‡</sup>	2.76 (1.27–6.01) <sup>‡</sup>
Diabetes			
No	—	—	—
Yes	0.92 (0.22–3.84)	4.89 (2.60–9.22) <sup>‡</sup>	2.35 (0.66–8.34)*

Note. PTSD = posttraumatic stress disorder. Data presented are odds ratio (95% confidence intervals).

\*  $p < .2$ .

<sup>†</sup> $p < .05$ .

<sup>‡</sup> $p < .001$ .

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**Table 3**

Adjusted Association Between Sample Characteristics and Sexual Dysfunction by Race/Ethnicity

Characteristic	White	African American	Hispanic	Overall
Age	1.05 (1.03–1.08) <sup>†</sup>	1.08 (1.05–1.11) <sup>†</sup>	1.06 (1.02–1.11) <sup>†</sup>	1.06 (1.04–1.07) <sup>†</sup>
Race/ethnicity				
White	—	—	—	Ref.
African American	—	—	—	1.56 (1.15–2.11) <sup>†</sup>
Hispanic	—	—	—	1.41 (0.93–2.13)
Annual income US\$>20,000	—	1.53 (0.96–2.43)	—	1.32 (0.99–1.74)
Marital status				
Never married	Ref.	Ref.	Ref.	Ref.
Married	2.07 (1.12–3.82) <sup>†</sup>	2.55 (1.22–5.32) <sup>†</sup>	1.86 (0.77–4.47)	2.11 (1.40–3.18) <sup>†</sup>
Separated/divorced/widowed	2.33 (1.20–4.54) <sup>†</sup>	3.04 (1.40–6.58) <sup>†</sup>	0.98 (0.27–3.49)	2.37 (1.51–3.72) <sup>†</sup>
Residency: Urban (Ref: rural)	0.72 (0.43–1.21)	—	—	—
Depression	1.42 (0.19–2.23)	1.09 (0.64–1.84)	0.87 (0.39–1.97)	1.19 (0.87–1.64)
PTSD	1.36 (0.88–2.26)	2.05 (1.25–3.35) <sup>†</sup>	4.04 (1.80–9.06) <sup>†</sup>	1.96 (1.45–2.65) <sup>†</sup>
Other anxiety	1.36 (0.87–2.12)	1.34 (0.79–2.25)	—	1.28 (0.43–1.74)
Bipolar disorder	1.86 (0.87–3.98)	—	—	—
Smoking	1.74 (1.12–2.70) <sup>†</sup>	—	—	—
Substance abuse/dependence	—	—	—	—
Hypertension	1.67 (1.03–2.72) <sup>†</sup>	2.89 (1.77–4.72) <sup>†</sup>	1.25 (0.48–3.22)	2.17 (1.58–2.97) <sup>†</sup>
Diabetes	—	1.70 (0.81–3.55)	1.22 (0.30–4.87)	1.19 (0.69–2.06)

Note. PTSD = posttraumatic stress disorder. Data presented are odds ratio (95% confidence intervals).

<sup>†</sup>  $p < .05$ .

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