Military Sexual Trauma in US Veterans: Results From the National Health and Resilience in Veterans Study

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ABSTRACT

Objective: To evaluate the prevalence of military sexual trauma (MST) among US veterans, identify sociodemographic and military characteristics of MST, and examine the relationships between MST and psychiatric comorbidities, functioning/quality of life, and mental health treatment utilization.

Method: Data were analyzed from the National Health and Resilience in Veterans Study, a contemporary, nationally representative survey of 1,484 US veterans conducted September–October 2013. Poststratification weights were applied to analyses to permit generalizability of results to the US veteran population. Outcomes measured include history of MST, trauma histories, lifetime and current *DSM-IV* mental disorders, functioning and quality of life, and utilization of mental health treatment.

Results: The overall prevalence of MST was 7.6% and was higher among female than male veterans (32.4% vs 4.8%) and younger than older veterans (22.8% among veterans aged 18-29 years vs 4.5% among veterans aged 60+ years). After adjustment for sociodemographic and military characteristics, MST was associated with elevated rates of current major depressive disorder, posttraumatic stress disorder, and generalized anxiety disorder (adjusted odds ratio [aOR] range, 2.19-3.12); past history of suicide attempt (aOR=2.78) and current suicidal ideation (aOR=2.19); and decreased mental and cognitive functioning and quality of life (Cohen *d*, 0.23-0.38). MST was also associated with increased current utilization of psychotropic medication (aOR=3.70) and psychotherapy or counseling (aOR=2.41), independent of psychiatric morbidities.

Conclusions: 7.6% of US veterans screen positive for MST, with substantially higher rates among female and younger veterans. MST is associated with elevated rates of several psychiatric morbidities and suicidality, reduced functioning and quality of life, and increased mental health treatment utilization, independent of other sociodemographic, military, and mental health factors. These results suggest that MST is prevalent among US veterans and associated with elevated health burden. Findings can help inform efforts to identify at-risk veterans and characterize the concomitant health burden and needs associated with MST in this population.

J Clin Psychiatry 2014;75(10):e1133–e1139 © Copyright 2014 Physicians Postgraduate Press, Inc.

Submitted: May 9, 2014; accepted July 14, 2014 (doi:10.4088/JCP.14m09244). Corresponding author: Robert H. Pietrzak, PhD, MPH, US Department of Veterans Affairs National Center for Posttraumatic Stress Disorder, VA Connecticut Healthcare System, Department of Psychiatry, Yale School of Medicine, 950 Campbell Ave/151E, West Haven, CT 06516 (robert.pietrzak@yale.edu).

ilitary sexual trauma (MST) is defined by the US Department of Veterans Affairs (VA) as "sexual harassment that is threatening in character or physical assault of a sexual nature that occurred while the victim was in the military regardless of geographic location of the trauma, gender of the victim or the relationship to the perpetrator."^{1(p1)} Several recent studies have reported a high prevalence of MST in returning female Iraq/Afghanistan veterans, bringing national attention to the issue of MST and its impact on veterans.^{2,3} The reported prevalence of MST across all eras of service ranges widely from 0.4%-63.0% in women and 0.6%-6.0% in men, with median ranges of 12.0%-15.1% in women and 0.7%-1.0% in men.^{2,4-9} This wide range in prevalence is associated with variability in samples and differences in how MST is defined and assessed.⁹ Notably, the lowest prevalence of MST was observed in a study of Vietnam-era women (0.4%),¹⁰ whereas the highest were observed in female treatment-seeking veterans in a VA stress disorders clinic (63.0%)⁵ and in Gulf War I male veterans applying for posttraumatic stress disorder (PTSD) benefits (6.0%).⁸ In comparison, estimates of the prevalence of adult sexual assault observed in the US general population range from 0.7%-3.8% in men and 9.2%-22.0% in women.¹¹⁻¹⁴

Risk factors associated with MST are based predominantly on results of studies of women, and they include a younger age upon entering the military, enlisted status, lower education, and a history of childhood sexual abuse.^{6,15} Among studies that included male veterans, younger age, white race, never married or separated/divorced status, childhood sexual or physical abuse or neglect, and service-connected disability were associated with MST.^{8,16}

MST and sexual assault in civilian populations have been associated with a broad range of negative health outcomes.^{6,12,16,17} Female veterans who screen positive for MST report increased anxiety symptoms, increased drug use, more difficulties returning home after deployment, and higher rates of homelessness compared to female veterans without a history of MST.¹⁸ In studies of veterans reporting MST, mean odds of PTSD ranged from 5.4 to 8.8 in women and 3.0 to 6.2 in male veterans.^{7,16}

The majority of extant studies of MST have focused on women who served in recent combat theaters, such as the Iraq/Afghanistan conflicts.^{2,4,7,16} Few studies have evaluated the prevalence of MST in Vietnam or earlier conflicts, and these studies focused solely on women.^{5,10,17} While the prevalence of MST is highest in female veterans, the VA reports that 54% of VA users who screen positive for MST are men, a finding attributed to the 20-fold greater proportion of male to female

- Given elevated rates of military sexual trauma (MST) in both male and female veterans who do and do not utilize VA health care services, it may be helpful to screen for MST in both male and female veterans and implement MST screening efforts into non-VA clinical settings.
- Sociodemographic and military characteristics of patients at increased risk of MST can aid clinicians in identifying veteran subpopulations that may benefit from MST screening.
- MST is associated with a broad range of mental health problems, impaired functioning and quality of life, and somatic distress, thereby underscoring the importance of integrated care in the assessment, monitoring, and treatment of veterans with a history of MST.

VA users.¹ MST is also thought to be largely underreported, particularly in men, among whom there may be a higher burden of stigma.¹ In 2012, there were 7.4 million Vietnamera veterans living in the United States, representing 34.9% of living veterans¹⁹ and making this a significant population for inclusion in MST research. An additional limitation of extant research on MST is that most studies have focused on select samples of veterans (eg, VA treatment-seeking veterans). Thus, the population-based burden of MST among US veterans and its sociodemographic, military, and health and psychosocial correlates remain unknown.

To address this gap in the literature, we investigated the prevalence and correlates of MST using data from a contemporary, nationally representative sample of US veterans. This sample, which reflects the US veteran population, includes a broad representation of Vietnam-, Korea-, and World War II–era veterans, as well as Gulf War I and Iraq/Afghanistan veterans. We had 3 aims: (1) determine the prevalence of MST in the full sample, as well as within age and sex subgroups; (2) evaluate sociodemographic and military characteristics of MST; and (3) examine the relationship between MST and psychiatric and functioning measures and mental health care utilization.

METHOD

Sample

The National Health and Resilience in Veterans Study (NHRVS) is a nationally representative survey of US veterans. In the current study, data were analyzed from the 1,468 US veterans who completed the second baseline survey that was conducted September–October 2013 and included questions about MST. Participants completed a 60-minute web-based survey and were compensated \$15. The NHRVS sample was drawn from a research panel of more than 80,000 households maintained by GfK Knowledge Networks, Inc, a survey research firm that uses KnowledgePanel, a probability-based, online access survey panel of a nationally representative sample of US adults that covers approximately 98% of US households. Households are provided with access to the Internet and computer hardware if needed. KnowledgePanel recruitment uses dual sampling frames that include both listed

and unlisted telephone numbers, telephone and nontelephone households, cell phone-only households, and households with and without Internet access. Only persons sampled through these probability-based techniques are eligible to participate in KnowledgePanel. In the second baseline survey of the NHRVS, 1,602 adults in KnowledgePanel responded "yes" to an initial screening question that confirmed veteran status, and 1,484 (92.6%) participated in the NHRVS. To permit generalizability of study results to the entire population of US veterans, poststratification weights were applied based on demographic distributions (ie, age, gender, race/ethnicity, education, Census region, and metropolitan area) from the most contemporaneous US Census Bureau Current Population Survey.²⁰ Demographic characteristics of the NHRVS sample were consistent with those observed in prior population-based surveys of veterans, such as the American Community Survey, including median age of male and female veterans, racial demographics, proportion having completed higher education, and proportion of population of male and female veterans having married.²¹ The study was approved by the Human Subjects Subcommittee of the VA Connecticut Healthcare System, and all participants provided informed consent.

Assessments

Military sexual trauma was assessed using 2 questions from the Veterans Health Administration MST screen: (1) "While you were in the military, did you receive uninvited and unwanted sexual attention, such as touching, cornering, pressure for sexual favors, or sexual remarks?" and (2) "Did someone ever use force or threat of force to have sexual contact with you against your will?" A positive response to either question, scored dichotomously, was indicative of MST. This screening instrument has displayed adequate sensitivity and specificity and has been validated against clinical interview.²²

The Trauma History Screen²³ is a self-report measure that assesses the lifetime occurrence of 14 potentially traumatic events. Events across the lifespan were assessed, including early life events such as physical or sexual assault during childhood, as well as events that more commonly occur in adulthood, such as motor vehicle accident, military combat, and unexpected loss of a loved one. An additional event, life-threatening illness or injury, was added.

The PTSD Checklist for $DSM-5^{24}$ is a 20-item self-report instrument that assesses DSM-5 diagnostic criteria for PTSD. Respondents who endorsed being bothered at least "moderately" on the required number of symptoms within each of the 4 DSM-5 symptom clusters (ie, criteria B–E) were identified as having probable PTSD.

Modules from the Mini-International Neuropsychiatric Interview were used to assess lifetime diagnoses of major depressive disorder, social phobia, alcohol abuse/ dependence, and drug abuse/dependence on the basis of *DSM-IV* criteria.²⁵

Nicotine dependence was assessed using the Fagerström Test for Nicotine Dependence (FTND).²⁶ FTND scores

range from 0 to 10 points, with higher scores indicating higher degree of nicotine dependence. A score \geq 5 was used to indicate nicotine dependence.

Hazardous drinking was assessed with the Alcohol Use Disorders Identification Test-10, a 10-item screening tool for hazardous or harmful alcohol use.²⁷ Scores range from 0 to 40, with a score ≥ 8 indicative of hazardous or harmful alcohol use.²⁷

Current depression and anxiety symptoms were assessed using the Patient Health Questionnaire-4,²⁸ a 4-item selfreport screening instrument for depression and anxiety. Scores ≥ 3 on the depression and anxiety items are indicative of positive screens for depression and anxiety.

Suicidal ideation in the past 2 weeks was assessed using a question from the Patient Health Questionnaire-9,²⁹ which was modified to assess both passive and active suicidal ideation.³⁰ Respondents were asked, "How often have you been bothered by thoughts you might be better off dead?" and "How often have you been bothered by thoughts of hurting yourself in some way?" Suicidal ideation was coded as a response ≥ 1 ("several days") on either question. Lifetime suicide attempt was assessed with the question "Have you ever tried to kill yourself?"

The somatization subscale of the Brief Symptom Inventory-18³¹ was used to assess current somatic symptoms (eg, "pains in heart or chest"). Respondents are asked to report their level of distress in the past week, and items are summed to yield a total score.

Mental health treatment utilization was assessed with the following questions: "Have you ever received mental health treatment (eg, prescription medication or psychotherapy for a psychiatric or emotional problem)?" Among veterans who replied "yes" to this question, 2 additional questions were asked to assess current mental health treatment utilization: "Are you currently taking prescription medication for a psychiatric or emotional problem?" and "Are you currently receiving psychotherapy or counseling for a psychiatric or emotional problem?"

The Short Form-8 Health Survey (SF-8)³² is a validated, abbreviated version of the SF-12,³³ one of the most widely used measures of physical and mental functioning. Component summary scores range from 0 to 100, with a score of 50 representing the average level of functioning in the general population with each 10-point interval representing 1 standard deviation. Higher scores reflect better functioning.

Quality of life was assessed with the Quality of Life Enjoyment and Satisfaction Questionnaire-Short Form,³⁴ a 14-item measure that asks respondents about their satisfaction in the past week with various aspects of their lives (eg, work, family). Respondents are asked to rate their satisfaction in these areas from 1 (very poor) to 5 (very good), and scores are summed for a total score.

Cognitive functioning was assessed via the MOS Cognitive Functioning Scale,³⁵ a self-report measure that asks respondents to rate how often they had difficulties with reasoning, concentration and thinking, confusion, memory, attention, and psychomotor speed in the past month.

Data Analysis

Complete data were available for 1,468 participants. Descriptive statistics were conducted to summarize variables. Raw numbers of participants and weighted prevalences and means (SDs) were computed using poststratification weights based on the demographic distribution of veterans in the United States (ie, age, gender, race/ethnicity, education, Census region, and metropolitan area) from the most contemporaneous US Census Bureau Current Population Survey.²⁰ Sociodemographic and military characteristics were then compared between veterans with and without a positive screen for MST using independent-samples t tests and χ^2 tests. A series of multivariable logistic regression and analyses of covariance adjusted for sociodemographic and military characteristics that differed by MST status were then conducted to evaluate the relation between MST status and psychiatric and functioning variables. If MST status was associated with SF-8 mental and physical component summary scores, post hoc analyses of subscales that comprise these summary scores were conducted. Lifetime depression or PTSD status was entered as an additional covariate in analyses examining suicidality and mental health treatment histories. Measures of effect sizes were expressed using odds ratios and 95% confidence intervals (95% CIs) for categorical outcomes and Cohen d for continuous outcomes.

RESULTS

Prevalence of MST

A total of 115 (weighted prevalence = 7.6%) veterans screened positive for MST; 112 (weighted prevalence = 7.3%) reported unwanted sexual attention, such as touching, cornering, pressure for sexual favors, or sexual remarks; and 34 (weighted prevalence = 2.4%) reported that someone used force or threat of force to have sexual contact against their will. Of the 112 veterans who reported unwanted sexual attention, 31 (weighted prevalence = 30.2%) reported that someone used force or threat of force to have sexual contact against their will.

Of the 156 women in the sample, 56 (weighted prevalence = 32.4%) reported any MST; of the 1,312 men in the sample, 59 (weighted prevalence = 4.8%) reported any MST. Regarding specific types of MST, 55 women (weighted prevalence = 32.0%) and 57 men (weighted prevalence = 4.6%) reported unwanted sexual attention, such as touching, cornering, pressure for sexual favors, or sexual remarks, and 23 women (weighted prevalence = 11.6%) and 11 men (weighted prevalence = 1.4%) reported that someone used force or threat of force to have sexual contact against their will.

Table 1 shows sociodemographic and military characteristics of the full sample and by MST status. Compared to veterans without MST, veterans with MST were younger and more likely to be female, nonwhite, and unemployed; to have enlisted in the military and served in the Navy; and to report the VA as their primary source of health care, and they were less likely to be married/cohabitating and to have served in the Army. Among combat veterans, those with MST were

Status					
	Total	No MST	MST	Test of I	Difference
Characteristic	$(N = 1,468)^a$	$(n=1,353)^{a}$	$(n = 115)^{a}$	t or χ^2	Р
Sociodemographic characteristics					
Age, mean (SD), y	60.4 (15.3)	61.0 (15.1)	53.2 (15.1)	5.23	<.001
Age group, n (%)					
18–29 y	55 (3.8)	45 (77.2)	10 (22.8)		
30-44 y	126 (13.5)	106 (89.3)	19 (10.7)		
45–59 y	327 (25.7)	287 (89.4)	37(10.6)		
60+ y	976 (57.0)	915 (95.5)	49 (4.5)		
Sex, n (%)				143.96	<.001
Male	1,312 (89.9)	1,253 (92.6)	59 (57.1)		
Female	156 (10.1)	100 (7.4)	56 (42.9)		
Race/ethnicity, n (%)				16.07	.001
White, non-Hispanic	1,191 (75.7)	1,109 (76.6)	82 (63.4)		
Black, non-Hispanic	111 (9.7)	102 (9.7)	9 (9.8)		
Hispanic	98 (8.9)	87 (8.5)	11 (14.3)		
Other/mixed race	68 (5.7)	55 (5.2)	13 (12.5)		
Highest education, n (%)				3.27	.35
Less than high school	25 (3.6)	23 (3.6)	2 (3.6)		
High school graduate	211 (29.7)	198 (30.4)	13 (22.3)		
Some college	623 (36.5)	572 (36.2)	51 (40.2)		
Bachelor's degree or higher	609 (30.2)	560 (29.8)	49 (33.9)		
Marital status, n (%)		>		20.51	<.001
Married/cohabitating	1,067 (70.3)	997 (71.3)	70 (58.6)		
Divorced/separated	231 (17.0)	202 (16.7)	29 (19.8)		
Never married	90 (7.6)	79 (6.8)	11 (18.0)		
Widowed	80 (5.1)	75 (5.2)	5 (3.6)	11.04	0.0.4
Employment status, n (%)	452 (24.0)	(24.2)	26 (21.2)	11.04	.004
Working	4/3 (34.0)	437 (34.3)	36 (31.3)		
Retired	/08 (44.3)	6/1 (45.0)	37 (34.8)		
Unemployed	287 (21.7)	245 (20.7)	42 (33.9)	6 40	000
rousenoid income, ii (%)	255 (27.0)	222 (20.2)	22 (22 4)	0.48	.090
< \$55,000 \$25,000 = 0,000	200 (20 9)	323 (28.3) 257 (20.2)	32(23.4)		
\$53,000-39,999	300(20.0)	277 (19.5)	23(23.4) 27(19.0)		
\$85,000+	304(10.3)	277(10.3) 306(23.0)	$\frac{27}{10.9}$		
\$65,000	429 (24.7)	390 (23.9)	55 (54.2)		
Military characteristics	()				
Enlisted into military (vs drafted), n (%)	1,236 (86.5)	1,127 (85.7)	109 (95.5)	8.50	.004
Combat veteran, n (%)	560 (38.5)	524 (38.6)	36 (37.5)	0.05	.83
Branch of service, n (%)	500 (11 0)	550 (10	25 (25 5)	15.89	.003
Army	588 (41.2)	552 (42.5)	37 (25.7)		
Navy	331 (26.7)	366 (25.6)	35 (39.8)		
Air Force	309(20.2)	335 (19.9)	26(23.0)		
Marine Corps	108(7.2)	98 (7.2)	10 (6.2)		
Other	66 (4.8)	59 (4.7)	7 (5.3)	12.10	011
War era (among combat veterans), n (%)	272(42.0)	2(2(455)	10 (22.0)	13.10	.011
Vietnam	2/3(43.9)	263 (45.5)	10(23.8)		
Dension Culf	91(19.1)	62(17.9)	9(33.3)		
r cistali Guli World War II/Korean War	07(13.3) 75(125)	01(14.3) 70(120)	0(20.2) 5(0.5)		
Other	73 (13.3) 51 (0 2)	/U(13.9) /5 (0 2)	5(9.5)		
No of years in military mean (SD)	51(0.2)	43(0.3)	74(65)	1 1 4	0.25
VA is primary source of health care $p(04)$	313(214)	279(20.7)	34(306)	6.07	0.25
vir is primary source of nearth care, if (70)	515 (21.4)	219 (20.7)	54 (50.0)	0.07	.014
"Percentages and mean values are weighted. Abbreviation: VA = Department of Veterans	Affairs.				

Table 1. Sociodemographic and Military Characteristics by Military Sexual Trauma (MST) Status

more likely than those without MST to have served in more recent conflicts such as the Iraq/Afghanistan war.

Table 2 shows trauma history, psychiatric, and functioning variables by MST status. Controlling for sociodemographic and military characteristics, veterans with MST were more likely than veterans without MST to report a history of child sexual trauma and to screen positive for lifetime depression, social phobia, and suicide attempt and current depression, PTSD, generalized anxiety, and suicidal ideation. They also reported a greater number of traumas in their lifetime, scored lower on measures of mental and cognitive functioning and quality of life, and scored higher on a measure of somatic symptoms. After additionally controlling for lifetime PTSD and/or depression, veterans with MST were more likely than veterans without MST to have ever received mental health treatment and to be currently engaged in treatment, including both psychotropic medication and psychotherapy/ counseling.

DISCUSSION

Using data from a contemporary, nationally representative sample, we found that 7.6% of US veterans screened positive

$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Table 2. Trauma History, Psychiatric, and Functioning Measures by Military Sexual Trauma (MST) Status										
$\begin{array}{c c c c c c c c c c c c c c c c c c c $					Bivariate Test of Difference		Wald χ^2 or <i>F</i>		Adjusted		
Trauma history measures No. of traumas in lifetime, mean (SD) 4.4 (3.5) 3.7 (3.0) 5.4 (3.7) 6.85 .009 0.50 Child sexual trauma, n (%) 102 (9.0) 76 (7.8) 26 (23.6) 31.34 <.001 10.97 .001 2.42 (1.43-4.07) Psychiatric measures, n (%) 102 (9.0) 76 (7.8) 26 (23.6) 31.34 <.001 4.92 .027 1.78 (1.07-2.97) Major depressive episode 137 (10.7) 110 (9.9) 27 (20.5) 12.11 .001 4.68 .030 2.39 (1.09-5.28) Alcohol use disorder 139 (1.9) 127 (14.4) 24 (19.8) 2.34 .13 0.04 .84 .006 (0.59-1.93) Nicotine dependence 216 (18.9) 233 (19.0) 17 (17.0) 0.28 .59 0.31 .57 0.85 (0.47-1.51) Sucida attempt 79 (6.7) 56 (4.8) 23 (29.7) 101.24 .001 1.84 .001 2.52 (1.47-4.09) Major depressive disorder 64 (5.2) 50 (4.3) 14 (16.1) 28.63 .001 1.63 .201 2.52 (1.45-4.37) Generalized anxiet	Measure	Total (N=1,468) ^a	No MST (n=1,353) ^a	MST (n=115) ^a	Test Result	Р	Test Result	Р	OR (95% CI) or Cohen d ^b		
No. of trauma, n (%)4.4 (3.5)3.7 (3.0)5.4 (3.7)6.85.0090.50Child sexual trauma, n (%)102 (9.0)76 (7.8)26 (23.6) 31.34 <.001	Trauma history measures										
$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	No. of traumas in lifetime mean (SD)	44(35)	37(30)	54(37)			6.85	009	0.50		
Psychiatric measures, n (%) Image: Constraint of Constraints and the state of Constraints and the test of Constrate	Child sexual trauma, n (%)	102 (9.0)	76 (7.8)	26 (23.6)	31.34	<.001	10.97	.001	2.42 (1.43-4.07)		
$\begin{array}{c c c c c c c c c c c c c c c c c c c $	Psychiatric measures, n (%)										
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Lifetime										
Major depressive episode137 (10.7)110 (9.9)27 (20.5)12.11.0010.27.601.16 (0.66-2.06)Social phobia39 (2.9)29 (2.3)10 (9.8)21.16<.001	Posttraumatic stress disorder	145 (12.2)	113 (10.8)	32 (28.6)	30.47	<.001	4.92	.027	1.78(1.07 - 2.97)		
Social phobia19 (2.9)29 (2.3)10 (9.8)21.11 (1.17) (1.16) $(1.$	Major depressive episode	137(10.7)	110 (9.9)	27(20.5)	12.11	.001	0.27	.60	1.16(0.66-2.06)		
Alcohol use disorder537 (38.0)483 (37.4)54 (45.0)2.151.161.051.671.18 (10.75-1.86)Drug use disorder196 (14.9)172 (14.4)24 (19.8)2.341.130.04.841.06 (0.59-1.93)Nicotine dependence216 (18.9)233 (19.0)17 (17.0)0.28.590.31.570.85 (0.47-1.51)Suicida attempt79 (6.7)56 (4.8)23 (29.7)101.24.0011.134.0012.58 (1.53-5.05)Current927.1)72 (5.8)20 (22.5)43.53.0011.6.2.0112.52 (1.54-4.37)Generalized anxiety disorder101 (6.9)76 (5.4)25 (24.3)57.10.0011.6.2.0102.52 (1.54-4.37)Generalized anxiety disorder153 (12.3)138 (12.2)15 (13.5)0.17.68.002.87.095 (0.50-1.81)Ever received mental health treatment134 (10.1)107 (8.4)27 (30.6)56.00.0011.2.20.0013.21 (1.91-5.40)Currently in mental health treatment134 (10.1)107 (8.4)27 (30.6)56.00.0011.2.0.0133.21 (1.91-5.40)Psychotropic medication121 (8.9)97 (7.2)24 (29.7)63.81.0011.2.0.0133.21 (1.91-5.40)Current use of psychotropic medication121 (8.9)97 (7.2)24 (29.7)63.81.0011.2.0.013.70 (1.78-7.73)Social functioning measures, mean (SD)SS1.83 (9.05)	Social phobia	39 (2.9)	29 (2.3)	10(9.8)	21.16	< .001	4.68	.030	2.39(1.09-5.28)		
$\begin{array}{cccccccccccccccccccccccccccccccccccc$	Alcohol use disorder	537(38.0)	483 (37.4)	54(45.0)	2.52	.11	0.52	.47	1.18(0.75-1.86)		
Nicotine dependence216 (18.9)213 (19.0)17 (17.0)0.28.590.31.570.85 (0.47-1.51)Suicide attempt79 (6.7)56 (4.8)23 (29.7)101.24<.001	Drug use disorder	196 (14.9)	172(14.4)	24(19.8)	2.34	.13	0.04	.84	1.06(0.59-1.93)		
Nuclea attempt $79 (6.7)$ $56 (4.8)$ $23 (29.7)$ 101.24 0.01 11.34 0.01 $2.78 (1.53-5.05)$ CurrentPosttraumatic stress disorder $64 (5.2)$ $50 (4.3)$ $14 (16.1)$ 28.63 0.01 6.00 0.14 $2.19 (1.17-4.09)$ Major depressive disorder $92 (7.1)$ $72 (5.8)$ $20 (22.5)$ 43.53 0.01 16.73 0.01 $2.52 (1.45-4.37)$ Generalized anxiety disorder $101 (6.9)$ $76 (5.4)$ $25 (24.3)$ 57.10 0.01 16.73 0.001 $3.12 (1.81-5.40)$ Suicidal ideation $108 (8.4)$ $82 (6.6)$ $26 (30.4)$ 76.38 0.001 7.57 0.06 $2.19 (1.25-3.84)$ Alcohol use disorder $153 (12.3)$ $138 (12.2)$ $15 (13.5)$ 0.17 6.6 0.02 $.87$ $0.95 (0.50-1.81)$ Ever received mental health treatment $303 (21.0)$ $255 (19.4)$ $48 (41.3)$ 29.05 0.01 4.56 0.33 $1.70 (1.04-2.76)$ Currently in mental health treatment $134 (10.1)$ $107 (8.4)$ $27 (30.6)$ 56.00 0.01 12.20 0.01 $3.21 (1.91-5.40)$ Functioning measures, mean (SD)Stream expression (S	Nicotine dependence	216 (18.9)	233(19.0)	17(17.0)	0.28	.59	0.31	.57	0.85(0.47 - 1.51)		
CurrentProtection <th< td=""><td>Suicide attempt</td><td>79 (6.7)</td><td>56 (4.8)</td><td>23(29.7)</td><td>101.24</td><td><.001</td><td>11.34</td><td>.001</td><td>2.78 (1.53–5.05)</td></th<>	Suicide attempt	79 (6.7)	56 (4.8)	23(29.7)	101.24	<.001	11.34	.001	2.78 (1.53–5.05)		
Posttraumatic stress disorder64 (5.2)50 (4.3)14 (16.1)28.63<.0016.00.0142.19 (1.17-4.09)Major depressive disorder92 (7.1)72 (5.8)20 (22.5)43.53<.001	Current	(017)	00 (110)	20 (2))	101121		11101	1001	200 (100 0100)		
Major depressive disorder 92 (7.1) 72 (5.8) 20 (22.5) 43.53 <.001 10.82 .001 2.52 (1.45–4.37) Generalized anxiety disorder 101 (6.9) 76 (5.4) 25 (24.3) 57.10 <.001	Posttraumatic stress disorder	64(5,2)	50(4.3)	14 (16.1)	28.63	< .001	6.00	.014	2.19(1.17-4.09)		
Generalized anxiety disorder101 (6.9)76 (5.4)25 (24.3)57.10<100116.73<10013.12 (1.81-5.40)Suicidal ideation108 (8.4)82 (6.6)26 (30.4)76.38<101	Major depressive disorder	92(7.1)	72 (5.8)	20(22.5)	43.53	<.001	10.82	.001	2.52(1.45-4.37)		
Suicidal ideation108 (8.4)120 (17)	Generalized anxiety disorder	101 (6.9)	76 (5.4)	25(24.3)	57.10	<.001	16.73	<.001	3.12(1.81-5.40)		
Alcohol use disorder153 (12.3)138 (12.2)15 (13.5) 0.17 6.8 0.02 $.87$ 0.95 ($0.50-1.81$)Ever received mental health treatment 303 (21.0) 255 (19.4) 48 (41.3) 29.05 $<.001$ 4.56 $.033$ 1.70 ($1.04-2.76$)Currently in mental health treatment 134 (10.1) 107 (8.4) 27 (30.6) 56.00 $<.001$ 19.33 $<.001$ 3.21 ($1.91-5.40$)Current use of psychotropic medication 121 (8.9) 97 (7.2) 24 (29.7) 63.81 $<.001$ 12.20 $<.001$ 3.70 ($1.78-7.73$)Psychotherapy or counseling 77 (6.5) 59 (5.2) 18 (22.5) 51.00 $<.001$ 6.23 $.013$ 2.41 ($1.21-4.80$)Functioning measures, mean (SD)SF-8 mental component summary 57.29 (8.24) 58.87 (7.49) 55.71 (13.08) \dots \dots 0.40 $.52$ \dots Social functioning 47.34 (7.50) 47.25 (7.34) 47.43 (9.05) \dots \dots 0.40 $.52$ \dots Mental health 46.39 (7.44) 48.22 (6.70) 44.56 (11.91) \dots 26.89 $<.001$ 0.38 Role-emotional 45.32 (6.19) 46.00 (5.87) 44.64 (8.51) \dots 4.78 $.029$ 0.19 SF-8 physical component summary 52.78 (9.17) 51.95 (9.10) 53.60 (9.75) \dots \dots \dots General health 45.60 (7.44) 44.82 (7.36) 46.38 (8.26) \dots \dots	Suicidal ideation	108 (8.4)	82 (6.6)	26(30.4)	76.38	<.001	7.57	.006	2.19(1.25-3.84)		
Ever received mental health treatment303 (21.0) 255 (19.4) 48 (41.3) 29.05 $<.001$ 4.56 $.033$ 1.70 (1.04-2.76)Currently in mental health treatment134 (10.1)107 (8.4)27 (30.6) 56.00 $<.001$ 19.33 $<.001$ 3.21 (1.91- 5.40)Current use of psychotropic medication121 (8.9)97 (7.2)24 (29.7) 63.81 $<.001$ 12.20 $<.001$ 3.70 (1.78- 7.73)Psychotherapy or counseling77 (6.5)59 (5.2)18 (22.5) 51.00 $<.001$ 6.23 $.013$ 2.41 (1.21- 4.80)Functioning measures, mean (SD)SF-8 mental component summary 57.29 (8.24) 58.87 (7.49) 55.71 (13.08) $$ $$ 0.40 $.52$ $$ Social functioning 47.34 (7.50) 47.25 (7.34) 47.43 (9.05) $$ $$ 0.40 $.52$ $$ Mental health 46.39 (7.44) 48.22 (6.70) 44.56 (11.91) $$ 26.89 $<.001$ 0.38 Role-emotional45.32 (6.19) 46.00 (5.87) 44.64 (8.51) $$ 4.78 $.029$ 0.19 SF-8 physical component summary 52.78 (9.17) 51.95 (9.10) 53.60 (9.75) $$ $$ $$ $$ General health 45.60 (7.44) 44.82 (7.36) 46.38 (8.26) $$ $$ $$ Physical functioning 44.10 (8.38) 43.60 (8.29) 44.60 (9.20) $$ $$ $$ Bodily pain 44.02 (8.64) <td>Alcohol use disorder</td> <td>153 (12.3)</td> <td>138 (12.2)</td> <td>15(13.5)</td> <td>0.17</td> <td>.68</td> <td>0.02</td> <td>.87</td> <td>0.95(0.50-1.81)</td>	Alcohol use disorder	153 (12.3)	138 (12.2)	15(13.5)	0.17	.68	0.02	.87	0.95(0.50-1.81)		
Currently in mental health treatment134 (10.1)107 (8.4)27 (30.6)56.0<.00119.33<.0013.21 (1.91-5.40)Current use of psychotropic medication121 (8.9)97 (7.2)24 (29.7) 63.81 <.001	Ever received mental health treatment	303 (21.0)	255 (19.4)	48 (41.3)	29.05	<.001	4.56	.033	1.70(1.04-2.76)		
Current use of psychotropic medication121 (8.9)97 (7.2)24 (29.7)63.81<.00112.20<.0013.70 (1.78–7.73)Psychotherapy or counseling77 (6.5)59 (5.2)18 (22.5) 51.00 <.001	Currently in mental health treatment	134(10.1)	107 (8.4)	27 (30.6)	56.00	<.001	19.33	<.001	3.21 (1.91–5.40)		
Psychotherapy or counseling77 (6.5)59 (5.2)18 (22.5)51.00<.0016.23.0132.41 (1.21-4.80)Functioning measures, mean (SD)SF-8 mental component summary $57.29 (8.24)$ $58.87 (7.49)$ $55.71 (13.08)$ 16.10<.001	Current use of psychotropic medication	121 (8.9)	97 (7.2)	24 (29.7)	63.81	<.001	12.20	<.001	3.70 (1.78–7.73)		
Functioning measures, mean (SD)SF-8 mental component summary 57.29 (8.24) 58.87 (7.49) 55.71 (13.08)16.10 $<.001$ 0.30 VitalitySocial functioning 47.34 (7.50) 47.25 (7.34) 47.43 (9.05) 0.40 $.52$ Mental health 46.39 (7.44) 48.22 (6.70) 44.56 (11.91) 0.68 0.38 Role-emotional 45.32 (6.19) 46.00 (5.87) 44.64 (8.51) 4.78 0.29 0.19 SF-8 physical component summary 52.78 (9.17) 51.95 (9.10) 53.60 (9.75) 0.38 0.84 General health $45.60(7.44)$ 44.82 (7.36) 46.38 (8.26) 0.16 0.19 SF-8 physical component summary 52.78 (9.17) 51.95 (9.10) 53.60 (9.75) 0.16 0.84 0.16 Physical functioning 44.10 (8.38) 43.60 (8.29) 44.60 (9.20) 0.16 0.16 Role-physical 44.28 (7.88) 44.12 (7.70) 44.43 (9.15) 0.16 0.16 Role-physical 44.28 (7.88) 44.12 (7.70) 44.43 (9.15) 0.16 0.16 Role-physical 0.16 0.28 0.84 0.16 Role-physical 0.16 0.28 0.84 0.16 Role-physical 0.16 0.28 0.16 Role-phys	Psychotherapy or counseling	77 (6.5)	59 (5.2)	18(22.5)	51.00	<.001	6.23	.013	2.41(1.21-4.80)		
SF-8mental component summary $57.29 (8.24)$ $58.87 (7.49)$ $55.71 (13.08)$ $16.10 < .001$ 0.30 Vitality $46.67 (7.67)$ $46.42 (7.50)$ $46.93 (9.25)$ 0.40 52 Social functioning $47.34 (7.50)$ $47.25 (7.34)$ $47.43 (9.05)$ 0.05 82 Mental health $46.39 (7.44)$ $48.22 (6.70)$ $44.56 (11.91)$ $26.89 < .001$ 0.38 Role-emotional $45.32 (6.19)$ $46.00 (5.87)$ $44.64 (8.51)$ 4.78 029 0.19 SF-8 physical component summary $52.78 (9.17)$ $51.95 (9.10)$ $53.60 (9.75)$ 2.98 0.84 General health $45.60(7.44)$ $44.82 (7.36)$ $46.38 (8.26)$ Physical functioning $44.10 (8.38)$ $43.60 (8.29)$ $44.60 (9.20)$ Role-physical $44.28 (7.88)$ $44.12 (7.70)$ $44.43 (9.15)$ Bodily pain $44.02 (8.64)$ $43.96 (8.43)$ $44.07 (10.36)$ MOS Cognitive Functioning Scale $79.92 (16.94)$ $83.03 (15.46)$ $76.82 (27.76)$ $17.48 < .001$ 0.28	Functioning measures, mean (SD)										
Or infinite component summary $46.67 (7.67)$ $46.42 (7.50)$ $46.93 (9.25)$ 0.40 52 Social functioning $47.34 (7.50)$ $47.25 (7.34)$ $47.43 (9.05)$ 0.05 82 Mental health $46.39 (7.44)$ $48.22 (6.70)$ $44.56 (11.91)$ 0.05 82 Role-emotional $45.32 (6.19)$ $46.00 (5.87)$ $44.64 (8.51)$ 4.78 029 0.19 SF-8 physical component summary $52.78 (9.17)$ $51.95 (9.10)$ $53.60 (9.75)$ 2.98 0.84 General health $45.60(7.44)$ $44.82 (7.36)$ $46.38 (8.26)$ Physical functioning $44.10 (8.38)$ $43.60 (8.29)$ $44.60 (9.20)$ Bodily pain $44.02 (8.64)$ $43.96 (8.43)$ $44.07 (10.36)$ MOS Cognitive Functioning Scale $79.92 (16.94)$ $83.03 (15.46)$ $76.82 (27.76)$ $17.48 < .001$ 0.28	SF-8 mental component summary	57.29 (8.24)	58.87 (7.49)	55.71 (13.08)			16.10	< .001	0.30		
Social functioning 47.34 (750) 47.25 (7.34) 47.43 (9.05) 0.05 .82 Mental health 46.39 (7.44) 48.22 (6.70) 44.56 (11.91) 0.05 .82 Mental health 46.39 (7.44) 48.22 (6.70) 44.56 (11.91) 0.05 .82 Social functional 45.32 (6.19) 46.00 (5.87) 44.64 (8.51) 4.78 .029 0.19 SF-8 physical component summary 52.78 (9.17) 51.95 (9.10) 53.60 (9.75) 2.98 .084 General health 45.60(7.44) 44.82 (7.36) 46.38 (8.26) Physical functioning 44.10 (8.38) 43.60 (8.29) 44.60 (9.20) Role-physical 44.28 (7.88) 44.12 (7.70) 44.43 (9.15) Bodily pain 44.02 (8.64) 43.96 (8.43) 44.07 (10.36) MOS Cognitive Functioning Scale 79.92 (16.94) 83.03 (15.46) 76.82 (27.76) 17.48	Vitality	46.67 (7.67)	46.42 (7.50)	46.93 (9.25)			0.40	.52	010 0		
Mental health 46.39 (7.44) 48.22 (6.70) 44.56 (11.91) 26.89 <.001	Social functioning	47.34 (7.50)	47.25 (7.34)	47.43 (9.05)			0.05	.82			
Role-emotional 45.32 (6.19) 46.00 (5.87) 44.64 (8.51) 4.78 .029 0.19 SF-8 physical component summary 52.78 (9.17) 51.95 (9.10) 53.60 (9.75) 2.98 .084 General health 45.60(7.44) 44.82 (7.36) 46.38 (8.26) Physical functioning 44.10 (8.38) 43.60 (8.29) 44.60 (9.20) Role-physical 44.28 (7.88) 44.12 (7.70) 44.43 (9.15) Bodily pain 44.02 (8.64) 43.96 (8.43) 44.07 (10.36) MOS Cognitive Functioning Scale 79.92 (16.94) 83.03 (15.46) 76.82 (27.76) 17.48 < .001	Mental health	46 39 (7 44)	48 22 (6 70)	44 56 (11 91)	•••		26.89	< 001	0.38		
SF-8 physical component summary 52.78 (9.17) 51.95 (9.10) 53.60 (9.75) 2.98 .084 General health 45.60(7.44) 44.82 (7.36) 46.38 (8.26) Physical functioning 44.10 (8.38) 43.60 (8.29) 44.60 (9.20) Role-physical 44.28 (7.88) 44.12 (7.70) 44.43 (9.15) Bodily pain 44.02 (8.64) 43.96 (8.43) 44.07 (10.36) MOS Cognitive Functioning Scale 79.92 (16.94) 83.03 (15.46) 76.82 (27.76) 17.48 < .001	Role-emotional	45.32 (6.19)	46.00 (5.87)	44.64 (8.51)			4.78	029	0.19		
General health 45.60(7.44) 44.82 (7.36) 46.38 (8.26) Physical functioning 44.10 (8.38) 43.60 (8.29) 44.60 (9.20) Role-physical 44.28 (7.88) 44.12 (7.70) 44.43 (9.15) Bodily pain 44.02 (8.64) 43.96 (8.43) 44.07 (10.36) MOS Cognitive Functioning Scale 79.92 (16.94) 83.03 (15.46) 76.82 (27.76) 17.48 < .001	SE-8 physical component summary	52.78 (9.17)	51.95 (9.10)	53.60 (9.75)			2.98	.084	0112		
Physical functioning 44.10 (8.38) 43.60 (8.29) 44.60 (9.20) Role-physical 44.28 (7.88) 44.12 (7.70) 44.43 (9.15) Bodily pain 44.02 (8.64) 43.96 (8.43) 44.07 (10.36) MOS Cognitive Functioning Scale 79.92 (16.94) 83.03 (15.46) 76.82 (27.76) 17.48 < .001	General health	45.60(7.44)	44.82 (7.36)	46.38 (8.26)			2.00	1001			
Role-physical 44.28 (7.88) 44.12 (7.70) 44.43 (9.15) Bodily pain 44.02 (8.64) 43.96 (8.43) 44.07 (10.36) MOS Cognitive Functioning Scale 79.92 (16.94) 83.03 (15.46) 76.82 (27.76) 17.48 < .001	Physical functioning	44.10 (8.38)	43.60 (8.29)	44.60 (9.20)							
Bodily pain 44.02 (8.64) 43.96 (8.43) 44.07 (10.36) MOS Cognitive Functioning Scale 79.92 (16.94) 83.03 (15.46) 76.82 (27.76) 17.48 < .001	Role-physical	44.28 (7.88)	44.12 (7.70)	44.43 (9.15)							
MOS Cognitive Functioning Scale 79.92 (16.94) 83.03 (15.46) 76.82 (27.76) 17.48 <.001 0.28	Bodily pain	44.02 (8.64)	43.96 (8.43)	44.07 (10.36)							
1.00 00gminter anenoning cease (19.12) (10.11) (10.10) (10.10) (10.10) (10.10) (10.10)	MOS Cognitive Functioning Scale	79.92 (16.94)	83.03 (15.46)	76.82 (27.76)			17.48	< .001	0.28		
Ouality of Life Enjoyment and Satisfaction 48.06 (10.26) 49.41 (9.81) 46.72 (13.47) 7 38 007 0.23	Quality of Life Enjoyment and Satisfaction	48.06 (10.26)	49.41 (9.81)	46.72 (13.47)			7.38	.007	0.23		
BSI-somatic symptoms 3.61 (3.53) 3.14 (3.43) 4.08 (4.28) 7.98 .005 0.24	BSI-somatic symptoms	3.61 (3.53)	3.14 (3.43)	4.08 (4.28)			7.98	.005	0.24		

^aPercentages and mean values are weighted.

^bORs (95% CIs) and Cohen *d* estimates for number of traumas in lifetime and child sexual trauma are adjusted for age, sex, race/ethnicity (white vs nonwhite), marital status (married/cohabitating vs not), employment status (currently employed vs not), enlistment status (enlisted vs drafted into military), and branch of service (Navy vs other); ORs (95% CIs) and Cohen *d* estimates for psychiatric and functioning measures are additionally adjusted for number of traumas in lifetime and child sexual trauma; and ORs (95% CIs) for suicidality, mental health treatment, and health-related quality of life variables are additionally adjusted for lifetime depression and posttraumatic stress disorder screening status. Abbreviations: BSI = Brief Symptom Inventory, MOS = Medical Outcomes Study, SF-8 = Short Form-8 Health Survey.

for MST, with higher rates among female (32.4%) than male (4.8%) veterans and younger than older veterans (22.8% among veterans aged 18-29 years vs 4.5% among veterans aged 60+ years). These estimates are on the higher end of those reported in previous studies of MST in female veterans, which ranged from 0.4%-63.0% (median, 12.0%-15.1%) in female veterans and 0.6%-6.0% (median, 0.7%-1.0%) in male veterans.^{2,3,6,7,9} As MST is often underreported,¹ it is possible that these estimates may be on the higher end of prevalence ranges because of the anonymous, Internet-based response methodology utilized in this study, which could be viewed as less intimidating or stigmatizing compared to in-person interview or survey formats. The finding that 11.6% of female and 1.4% of male veterans reported that someone used force or threat of force to have sexual contact against their will accords with prevalence estimates of adult sexual assault in the civilian population.¹¹⁻¹³ While the prevalence of MST is comparable to the prevalence of sexual assault in civilian

populations, MST generally occurs within a briefer time span (eg, 2–6 years) compared to the lifetime assessment of sexual assault prevalence, thus suggesting increased risk for sexual assault in this population.⁹

Demographic and military characteristics associated with MST in the current study are largely consistent with those identified in prior research.^{6,8,15,16} They extend this work to suggest that, in a nationally representative sample, veterans with MST are more likely to be racial/ethnic minorities and to have served in the Navy. While some prior studies have found that MST is associated with being in the Army⁶ and with white race/ethnicity,¹⁶ or is unrelated to race/ethnicity,^{6,8} these results were derived from select clinical samples that may not generalize to the general US veteran population. That MST was associated with racial/ ethnic minority status and being in the Navy is quite likely accounted for by the greater proportion of female or enlisted rank veterans in these groups.^{36,37} Indeed, race/ethnicity and

Navy status were unrelated to psychiatric and functioning measures after adjustment for MST and other demographic and military characteristics in multivariable models (Table 2). Taken together, these results provide a characterization of sociodemographic and military characteristics associated with MST in the general US veteran population.

Consistent with prior work,^{6,7,13,17} MST was associated with a broad range of negative clinical outcomes, including increased odds of lifetime PTSD and social phobia, as well as current PTSD, depression, and generalized anxiety. These associations remained significant and substantial in magnitude (ORs = 1.78 - 3.12) after adjustment for multiple sociodemographic and military characteristics that differed by MST status. While the increased odds of PTSD are lower than those reported in prior studies (ORs = 5.4 - 8.8 in female veterans, 3.0–6.2 in male veterans),^{7,16} these studies adjusted only for combat status⁷ or age and race.¹⁶ The finding that MST was independently linked to worse mental and cognitive functioning, quality of life, and somatic symptoms is consistent with prior work reporting that poorer health status and quality of life and lower economic and educational achievements were correlated with military physical and sexual violence.¹⁷ Taken together, these results suggest that MST, independent of other sociodemographic, military, and mental health variables, is associated with increased rates of a broad range of mental health problems, as well as reduced functioning and quality of life and somatic distress.

Veterans who reported MST were nearly 3 times more likely to have ever attempted suicide and twice as likely to report current suicidal ideation, even after adjustment for sociodemographic and military variables and lifetime depression and PTSD. This finding, which suggests that MST, independent of psychiatric status, is linked to suicidality, accords with results of a study of VA outpatients, which similarly found that MST was associated with a more than 2-fold greater risk of attempted suicide and/or intentional self-inflicted injury.¹⁶ Notably, however, MST was independently associated with history of and current utilization of mental health services, which suggests that MST, in and of itself, can motivate mental health service utilization in veterans.

There are several clinical implications of this study worth noting. First, results of this study suggest that a considerable proportion of US veterans, including male veterans and VA and non-VA users, screen positive for MST. Thus, it may be useful to screen for MST in both female and male veterans in both VA and non-VA clinical settings. Universal screening protocols and the use of MST care coordinators, such as those that have been implemented in VA settings, may also be useful in civilian mental health settings.^{38,39} Such screening efforts may be particularly useful in normalizing the experience of male veterans with a history of MST and reducing the stigma of MST, who to date have been largely marginalized in MST research and popular discourse.¹ Second, sociodemographic and military characteristics associated with MST, including female sex, younger age, racial/ethnic minority status, enlisted status, and history of childhood sexual abuse, may

aid clinicians in identifying subpopulations of veterans that may benefit from MST screening, as well as surveillance and treatment efforts. Third, the finding that MST was associated with elevated rates of several psychiatric disorders and reduced functioning and quality of life, as well as increased mental health care utilization, suggests that screening for MST may help identify veterans who are at risk for a broad range of mental health and functional difficulties, as well as increased need for services. Notably, that the health characteristics of MST survivors included mental, cognitive, and physical difficulties underscores the importance of integrated clinical care for this population.

Methodological limitations of this study must be noted. First, while our sample is nationally representative, the cross-sectional design of this study limits our ability to ascertain temporal/causal relationships between MST and the onset of associated mental health and other outcomes. Second, use of self-report measures instead of clinicianadministered diagnostic interviews may overestimate the prevalence of mental disorders. Third, underreporting of MST and retrospective recall bias may, at least in part, have influenced reporting of MST and past life events and symptoms. Fourth, the MST screening instrument utilized in our survey, which is being used in the VA health care system, is subjective with regard to an individual's appraisal of what constitutes unwanted sexual attention or threat of force. Fifth, the sample population includes only veterans with a permanent residence, excluding the homeless veteran population, which accounts for a substantial percentage of veterans with mental illness.⁴⁰ Thus, it is not clear whether the prevalence of MST observed in this study may generalize to homeless veterans and other veteran subpopulations (eg, institutionalized veterans).

Notwithstanding these limitations, results of this study of a contemporary, nationally representative sample of US veterans revealed a slightly higher prevalence of MST than has been reported in prior work,^{2-7,9} with markedly higher prevalence in female and younger veterans. They further provide characterization of a broad range of sociodemographic, psychiatric, and functional correlates of MST in the US veteran population. Additional research will be useful in assessing temporal/causal relationships between MST and psychiatric and functional difficulties in veterans; identifying sex-specific risk and protective factors of MST; examining whether different aspects of MST-such as forced sexual intercourse versus uninvited and unwanted sexual attention-confer different degrees of risk for mental health and functional outcomes; and evaluating the efficacy of MST prevention and treatment efforts in mitigating deleterious clinical outcomes in this population.

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Author contributions: Dr Pietrzak takes responsibility for the integrity of the data and the accuracy of the data analysis.

Potential conflicts of interest: Dr Tsai has received funding from the Bristol-Myers Squibb Foundation, which had no influence on the present study. Dr **Pietrzak** is a consultant to Cogstate, Ltd for work that bears no relationship to the present study. Drs Klingensmith and Southwick and Ms Mota have no potential conflicts of interest.

Funding/support: This study was supported by the US Department of Veterans Affairs National Center for Posttraumatic Stress Disorder and a private donation.

Disclaimer: The views and opinions expressed in this report are those of the authors and should not be construed to represent the views of sponsoring organizations, agencies, or the US government.

Additional information: The National Health and Resilience in Veterans Study (NHRVS) was funded and is owned by the US Department of Veterans Affairs National Center for Posttraumatic Stress Disorder. Although the NHRVS dataset is not in the public domain, the authors are open to collaborating with outside investigators; interested individuals should contact Dr Robert Pietrzak at robert.pietrzak@yale.edu.

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