

# Screening Positive for Military Sexual Harassment or Assault Is Associated With Higher Compulsive Sexual Behavior in Men Military Service Members/Veterans

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## ABSTRACT

### Introduction:

Compulsive sexual behavior (CSB) is understudied in military service members/veterans despite elevated risk for psychological disorders that are associated with CSB, including posttraumatic stress disorder (PTSD), depression, and alcohol misuse. Civilian research shows that sexual trauma is associated with higher CSB. Among military service members/veterans, sexual trauma that occurred before military service is identified as a risk factor for CSB, but the impact of screening positive for sexual trauma that occurred during military service (military sexual harassment[MSH]/military sexual assault[MSA]) on CSB is unknown. Moreover, screening positive for MSH/A confers a higher risk for distress relative to sexual trauma that occurred before or after military service, suggesting that MSH/A may be a robust predictor of CSB. The current study examined whether screening positive for MSH/A was associated with higher CSB after accounting for mental health and demographic characteristics. The current study specifically focused on men service members/veterans given that men show higher engagement and distress associated with CSB relative to women.

### Materials and Method:

Male service member/veterans (n = 508) completed self-report measures of CSB, MSH/A, PTSD and depression severity, hazardous drinking, and age. CSB was regressed on MSH/A, PTSD and depression severity, hazardous drinking, and age to determine if MSH/A was uniquely associated with CSB after accounting for other risk factors.

### Results:

A total of 9.25% to 12.01% of the sample reported scores suggestive of high levels of CSB. The regression of CSB on MSH/A screen status, PTSD, depression, alcohol use, and age explained 22.3% of the variance. Screening positive for MSH/A, higher PTSD symptoms, and higher depression symptoms were associated with higher CSB, but age or alcohol use were not.

### Conclusion:

Screening positive for MSH/A appears to be a unique risk factor for higher CSB above and beyond the effects of depression and PTSD. Since screening for CSB is not part of routine mental health care, clinicians may consider a positive screen for MSH/A as a possible indicator that CSB may be of clinical concern. Previous research on MSH/A and individual and sexual health outcomes suggest that distinguishing between MSH/A severities (harassment only vs. assault) is critical as the most dysfunction is observed with sexual trauma that involves assault. Owing to low endorsement of MSA, this study did not examine differences between MSA and MSH. Future research in this area would be strengthened by exploring MSH/A severities as a correlate of CSB.

## INTRODUCTION

Compulsive sexual behavior (CSB) is characterized by the failure to control intense and repetitive preoccupation or engagement with sexual urges, fantasies, and behaviors. The symptoms of CSB may be so persistent that they become a central focus of one's life and/or cause the person to neglect health and personal care or interests.<sup>1</sup> CSB can include paraphilic and nonparaphilic behaviors. Several paraphilic behaviors seen in CSB (e.g., Fetishistic Disorder) are conceptualized as diagnosable conditions in the Diagnostic and Statistical Manual for Mental Disorders-5,<sup>2</sup> but nonparaphilic

behaviors (e.g., compulsive masturbation) are not, which makes quantifying the prevalence of CSB challenging. Estimates from over 20 years ago, which are sometimes used to establish prevalence rates, suggest CSB likely impacts 3% to 6% of the population,<sup>3,4</sup> though more recent studies conducted on college students observed a range as large as 2% to 17.4%.<sup>5,6</sup>

The presence of CSB is associated with a number of poor social and mental health outcomes, including engagement in sexual offenses,<sup>7-9</sup> posttraumatic stress disorder (PTSD), depression, anxiety, and substance misuse.<sup>10</sup> Notably, all of these mental health disorders have higher prevalence rates in military samples relative to civilian samples.<sup>11,12</sup> Estimates of CSB among military service members/veterans have been as high as 17%,<sup>13</sup> with higher rates of behavior and distress observed among men (13.8%) relative to women (4.3%).<sup>14,15</sup> Such estimates suggest that further understanding factors

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associated with CSB among men service members/veterans may be of particular importance. Higher CSB in men service members/veterans is associated with higher PTSD symptoms, particularly re-experiencing symptoms, as well as sexual trauma that occurred during childhood and older age.<sup>13,15</sup> The association of sexual violence that occurred during military service with CSB has not yet been studied. This association may be an important factor to study given that sexual trauma that occurred during military service is associated with even greater distress than sexual traumas that occurred before military service.<sup>16,17</sup> Sexual violence that occurred during military service may be referred to as military sexual harassment (MSH) or military sexual assault (MSA). MSH typically includes verbal harassment or pressure for sexual favors. MSA includes force or use of the threat of force to have sexual contact with someone against his/her/their will. Among men veterans who participated in the National Health Study for a New Generation of U.S. Veterans, 4% of men veterans reported MSH/A.<sup>18</sup>

MSH/A is associated with several mental health disorders that are frequently linked to higher CSB and childhood sexual abuse, including PTSD, depression, anxiety, and substance misuse,<sup>19,20</sup> suggesting that the association of MSH/A with CSB may function similarly to the association of CSB and childhood sexual abuse. Unfortunately, there is a gap in our knowledge of the association of MSH/A and CSB in men service members/veterans as a result from the extant literature being largely focused on the presence of a diagnosable disorder,<sup>20</sup> sexual satisfaction or function,<sup>21</sup> and/or exclusively conducted on women service members/veterans.<sup>21–23</sup> Understanding the association of MSH/A and CSB among men service members/veterans could help clinicians and researchers further understand the impact of MSH/A on individual function and broaden our understanding of sexual health among men military service members/veterans. Such data could help inform screening procedures aimed at identifying service members/veterans who are at greater risk for distress and impairment. This information may also be used to guide treatment recommendations.

The purpose of the current study was to build on extant literature on CSB in military service members/veterans by examining the relative contribution of MSH/A on CSB in men service members/veterans after accounting for established correlates of PTSD, depression, and alcohol misuse, as well as the demographic characteristic of age.

## MATERIALS AND METHOD

### Procedure

Men service members/veterans ( $N = 508$ ) were recruited via advertisements placed on social media. Those individuals who wanted to participate were directed to a Qualtrics page where they read an Institutional Review Board IRB Letter of Information LoI, which included all study details. Participants who wished to complete the study after reading the Letter of

Information indicated their consent using a radio button and by advancing to survey questions. Participants were offered \$15 as compensation for their time. The Utah State University Institutional Review Board approved the parent study from which these data were extracted.

## Measures

### Demographics/Covariates

Age was included as a covariate and this information was collected using a demographic inventory. Other demographic information, including marital status, sexual orientation, race/ethnicity, military service branch, discharge status, and rank were collected and are reported here solely for the purpose of describing the study sample.

### Sexual Compulsivity

CSB was measured using the Sexual Compulsivity Scale (SCS),<sup>24</sup> a 10-item self-report measure assessing challenges managing sexual thoughts and/or behaviors. Sample items include: “I sometimes fail to meet my commitments and responsibilities because of my sexual behaviors,” and “I feel that my sexual thoughts and feelings are stronger than I am.” Items are scored on a scale from 1 (not at all like me) to 4 (very much like me), and are summed for a total score that ranges from 10 to 40. Higher scores indicate more severe CSB. To identify individuals who are engaging in sexually compulsive behaviors, several possible indicators have been proposed, including a (1) threshold of scores that are at least 1 SD above the mean,<sup>25</sup> (2) scores that meet or exceed at least the 80th percentiles of all scores observed in the sample,<sup>26</sup> or (3) scores  $\geq 24$ .<sup>27</sup> The scale has adequate reliability and validity.<sup>24–27</sup> In the current study, Cronbach’s alpha was 0.89.

### MSH/A

Screening for MSH/A was assessed using the two questions that comprise the VA Military Sexual Trauma Screening Questionnaire, a screening device commonly used in other studies to identify exposure to sexual trauma that occurred during military service.<sup>18,20–23</sup> The two questions include “When you were in the military, did you receive any uninvited or unwanted sexual attention” or “did someone ever use force or threat of force to have sexual contact with you against your will?” Endorsement to either item indicates a positive screen for MSH/A (positive: dummy code = 1; negative: dummy code = 0).

### PTSD

The PTSD Checklist for DSM-5<sup>28</sup> measured PTSD symptom severity over the past month. The measure includes 20 questions that query about being bothered by PTSD symptoms using a 5-point Likert scale that ranges from 0 (not at all) to 4 (extremely). Responses are summed for a total score, which ranges from 0 to 80. Higher scores indicate higher distress. Cronbach’s alpha in the current sample was 0.97.

## Depression

The Patient Health Questionnaire-9<sup>29</sup> measured depression severity over the past 2 weeks. Responses are rated using an ordinal scale that ranges from 0 (not at all) to 3 (nearly every day). Responses are summed for a total score that ranges from 0 to 27. Higher scores indicated more severe depressive symptoms. Cronbach's alpha in the current sample was 0.91.

## Alcohol Use

A modified version of the Alcohol Use Disorders Consumption Questions test<sup>30</sup> (AUDIT-C) assessed hazardous drinking. The AUDIT-C contains three self-report questions. Items are scored using responses that range from 0 to 4. Total scores range from 0 to 12 and higher scores indicate more hazardous drinking. Due to an administrative error, the third question on this scale was modified from "How often do you have six or more drinks on one occasion" to "How often do you have four or more drinks on one occasion." Thus, score interpretations on this administration may differ from other studies. The AUDIT-C has good validity and adequate reliability.<sup>30</sup> Cronbach's alpha in the current sample was slightly low at 0.70, which may be attributable to the modification described above.

## Analytic Plan

Sample characteristics were calculated using descriptive statistics. Bivariate associations of MSH/A, PTSD, depression, alcohol use, age, and CSB were calculated using correlations or analyses of variance where appropriate. Linear regression was used to determine whether a positive screen for MSH/A (positive = 1/negative = 0) was a unique correlate of CSB after accounting for mental health and demographic characteristics. Standardized regression estimates are presented. All analyses were conducted in Mplus 8.<sup>31</sup> Missing data in adjusted analyses were handled using full information maximum likelihood. As such, percentages presented in demographics or unadjusted analyses may not sum to 100% because of missingness.

## RESULTS

The average age of the sample was 39.05 (SD = 10.70). The majority of the sample identified as White (n = 422;

83.07%). Eighteen (3.54%) identified as Black, 4 (0.79%) identified as American Indian, 2 (0.39%) identified as Asian, 23 (4.53%) identified as Latinx, and 33 (6.50%) reported more than one racial/ethnic identity. The majority identified as partnered or married (n = 499; 98.23%). A minority identified as nonheterosexual (n = 30; 5.91%). Half of the sample (n = 258; 50.79%) reported service in the Army. Participants also reported service in the Marines (n = 27; 5.31%), Navy (n = 78; 15.35%), Air Force (n = 72; 14.17%), and 20 (3.94%) reported service in more than one branch. No participants reported service in the Coast Guard. Two hundred ninety-nine participants (58.86%) indicated that their highest rank was E5-E9, Officer, or Warrant Officer. The majority of the sample (n = 339, 66.73%) reported that they had discharged from service.

As noted above, several possible thresholds for CSB have been suggested, including using scores that are 1 SD above the mean,<sup>25</sup> scores that exceed the 80th percentile of all scores in the sample,<sup>26</sup> and scores  $\geq 24$ .<sup>27</sup> A review of scores on the Sexual Compulsivity Scale indicates that 1 SD above the mean score (M = 15.38) is 21.16 (rounded to 22; n = 61, 12.01%), scores at the 80th percentile or higher begin at 19.00, and scores  $\geq 24$  included 47 (9.25%) participants. As such, 9.25% to 12.01% of the sample reported scores suggestive of high levels of CSB. Sixty-seven (13.19%) of the sample screened positive for MSH/A, which is higher than the rate of MSH/A observed in the National Health Study for a New Generation of U.S. Veterans.<sup>18</sup> Of those who screened positive for MSH/A, 11 (16.42%; 2.17% of full sample) reported MSA. Of those reporting the trigger for their PTSD symptoms, 10 (2.0% of full sample; 14.93% of sample that screened positive for MSH/A) self-identified MSH/A as their index trauma.

At the bivariate level, higher CSB was associated with higher PTSD and depression symptoms with a medium-to-large effect size (see Table I) and was associated with screening positive for MSH/A (see Table II). CSB was unrelated to alcohol use and age (see Table I). The regression of CSB on MSH/A screen status, PTSD, depression, alcohol use, and age explained 22.3% of the variance of CSB severity ( $R^2 = 0.223$ ,  $P < 0.001$ ). Screening positive for MSH/A (estimate: 0.14, SE = 0.05,  $P < 0.01$ ), higher PTSD (estimate: 0.25, SE: 0.07,  $P < 0.01$ ), and higher depressive (estimate: 0.19, SE: 0.07,  $P < 0.01$ ) symptoms were associated with higher CSB. Age (estimate: 0.01, SE: 0.04,  $P = 0.83$ ) and alcohol use (estimate:

**TABLE I.** Means, SDs, and Bivariate Associations of Compulsive Sexual Behavior (CSB), PTSD, Depression, Alcohol Use, and Age

	M (SD)	1.	2.	3.	4.
1. CSB	15.38 (5.78)	—			
2. PTSD	22.94 (20.85)	0.43***	—		
3. Depression	9.57 (7.09)	0.42***	0.74***	—	
4. Alcohol	2.64 (2.92)	0.06	0.10	0.06	—
5. Age	39.05 (10.70)	0.02	0.00	-0.01	-0.19***

Note. CSB = Compulsive sexual behavior. PTSD = Posttraumatic stress disorder.

\*\*\* $P < 0.001$ , \*\* $P < 0.01$ , \* $P < 0.05$ .

**TABLE II.** Means, SDs, and Group Comparisons of Military Sexual Harassment/assault (MSH/A), Compulsive Sexual Behavior (CSB), PTSD, Depression, Alcohol Use, and Age

	Negative screen for MSH/A	Positive screen for MSH/A	Test of difference
	<i>M (SD)</i>	<i>M (SD)</i>	
CSB	14.56 (5.211)	18.37 (6.52)	$t(78) = -4.37, P < 0.001$
PTSD	19.43 (18.62)	33.43 (23.49)	$t(75) = -4.35, P < 0.001$
Depression	8.57 (6.65)	12.81 (7.18)	$t(336) = -4.33, P < 0.001$
Alcohol	2.61 (2.83)	2.81 (2.81)	$t(280) = -0.41, P = 0.68$
Age	38.35 (10.56)	40.83 (12.12)	$t(82) = -1.55, P = 0.13$

Note. MSH/A = Military sexual harassment/assault. CSB = Compulsive sexual behavior. PTSD = Posttraumatic stress disorder.

0.01, SE: 0.05,  $P = 0.83$ ) were not significantly associated with CSB.

## DISCUSSION

The current study sought to build on extant literature on CSB in military service members/veterans by examining a positive screen for MSH/A as a unique correlate of CSB after accounting for established correlates of PTSD, depression, and alcohol misuse, as well as age. In the current study, 9.25% to 12.01% of the sample reported high levels of CSB, which is lower than rates observed in other studies of CSB in military service members/veterans.<sup>13,15</sup> That said, the current study used a different assessment of CSB. Thus, the differences noted may be sample-specific or may be because of methodological differences. Screening positive for MSH/A was associated with higher CSB. Higher PTSD and depressive symptoms were also associated with higher CSB. Finally, alcohol use and age were not associated with CSB after accounting for PTSD, depression, and a positive screen for MSH/A.

This is the first study to show that a positive screen for MSH/A is associated with higher CSB. As CSB is not part of routine screening for psychological distress in most clinics serving military service members/veterans, it may make sense to selectively screen for CSB among MSH/A survivors. It has been established that CSB is associated with poor outcomes, such as the perpetration of sexual violence<sup>7-9</sup> or mental health issues such as PTSD, depression, anxiety, and substance misuse.<sup>10</sup> As such, selective screening for CSB may help identify individuals who are at risk for psychological and social issues. It is important to remember that the current study did not assess for diagnosable levels of CSB, which have not been established, particularly in the absence of paraphilic behaviors. Rather, the study sought to establish an association between sexual violence that occurred during military service and CSB. That said, clinicians providing care to military service members/veterans reporting higher levels of CSB should consider exploring the impact of MSH/A on individual and interpersonal function and may consider using cognitive behavioral therapies, therapies targeted at decreasing addictive behaviors, or mindfulness-based practices,<sup>32,33</sup> which have all shown promise in treating CSB.

Though these therapies have shown promise in treating CSB, the etiological underpinnings of CSB are not well-understood. Cognitive-behavioral, addiction, impulsivity, and

biopsychosocial models have all been suggested as plausible etiological explanations,<sup>10,33</sup> but none have shown superior predictive abilities in understanding CSB. Coupled with the knowledge that studies of CSB in military service members/veterans are limited, the field of sexual health and individual function in this population would be greatly served by additional studies of correlates and predictors of CSB, which can ultimately be used to develop a comprehensive understanding of why individuals experience issues with CSB. In turn, this understanding can lead to the development of manualized, evidenced-based treatments to decrease CSB.

The extant literature in women service members/veterans suggests that it is important to distinguish between MSH and MSA in studies examining the impact of MSH/A on individual outcomes like sexual and relationship health and PTSD.<sup>34</sup> Only a minority of participants in the current study endorsed MSA, precluding any statistical tests that explored how severity impacted the association of MSH/A and CSB because of low power. Future research in this area would be strengthened by examining different severities of MSH/A and its association with CSB.

The current study is not without limitations. Analyses were based on cross-sectional data, so causal inferences cannot be made. That said, MSH/A is a historical event and the study measured current CSB and associated mental health symptoms. The sample was comprised of a convenience sample of men service members/veterans, so data may not represent all men in the military. The amount of time elapsed since exposure to MSH/A was not captured. Future studies may consider covarying for proximity to the exposure. The measure used to assess CSB is a frequently used measure to assess sexual compulsivity,<sup>24-27</sup> but it does not allow researchers to explore the types of behaviors or urges (e.g., compulsive masturbation, compulsive pornography viewing) the individual is experiencing. Such information may be helpful in determining what interventions may be most useful when treating those reporting CSB. Finally, civilian data show that risky sexual behavior (e.g., lack of condom use) is associated with CSB,<sup>35</sup> and among military service members, gambling, childhood sexual trauma, and sexually transmitted infections were also associated with CSB.<sup>15</sup> Such data were not collected, so these effects could not be included in models.

Notwithstanding these limitations, the current study provides novel information regarding the association of CSB and

a positive screen for MSH/A. In the current study, 9.25% to 12.01% of men service members/veterans endorsed behaviors suggestive of high levels of CSB and a positive screen for MSH/A was associated with higher CSB. Future studies should examine whether different severities of MSH/A are uniquely associated with CSB. This area of inquiry would also be strengthened by studies that can provide information on developmental factors of CSB.

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## CONFLICTS OF INTEREST STATEMENT

None declared.

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