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Mental Health and Substance Use Factors Associated with Unwanted Sexual Contact among U.S. Active Duty Service Women

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Abstract

Many U.S. military women are exposed to unwanted sexual contact during military service, which can have important implications for mental health. Using data from the 2008 Department of Defense Survey of Health Related Behaviors, we employed multiple logistic regression methods to examine whether unwanted sexual contact was associated with stress, screening positive for mental disorders, or substance use, among active duty service women. The sample included 7,415 female military personnel, of whom 13.4% reported unwanted sexual contact (including any touching of genitals) since entering the military. After adjusting for potentially confounding variables, factors independently associated with unwanted sexual contact included military-related stress (Adjusted Odds Ratio [*AOR*] = 2.44), family/personal life-related stress (*AOR* = 1.78), and gender-related stress (*AOR* = 1.98) in the past 12 months. In addition, screening positive for depression, anxiety, posttraumatic stress disorder, psychological distress, and suicidal ideation or attempt were associated with unwanted sexual contact (*AOR* = 1.57–2.11). For drug/alcohol use, only misuse of tranquilizers/muscle relaxers (past 12 months) was associated with report of unwanted sexual contact (*AOR* = 1.35). Given the prevalence of unwanted sexual contact and corresponding adverse health outcomes in this sample of active duty women, strategies to create military structural/cultural changes and reduce gender-related stress and sexism are needed.

Unwanted sexual contact within the military is an important public health concern, and is more prevalent among female as compared with male personnel. The Department of Defense (DOD) 2012 Workplace and Gender Relations Survey of Active Duty Members recently reported the overall prevalence of unwanted sexual contact within the past 12

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months was 6.1% in women and 1.2% in men (Department of Defense, 2012). In a large 3-year cohort study of U.S. service members, 9.4% of women reported sexual harassment and 2.1% reported sexual assault (LeardMann et al., 2013). Among women veterans, the prevalence of military sexual trauma (MST), which includes sexual harassment and sexual assault, primarily ranges from 20%–43% (Suris & Lind, 2008). Unwanted sexual contact is an important health consideration among service women because it is highly prevalent, and has been associated with adverse mental health conditions (Boyd, Bradshaw, & Robinson, 2013; Dutra et al., 2011) and substance use (McCauley, Ruggiero, Resnick, & Kilpatrick, 2010; Resnick et al., 2012).

In particular, MST has been associated with increased posttraumatic stress disorder (PTSD), depression, anxiety, and suicidal behavior among women veterans (Decker, Rosenheck, Tsai, Hoff, & Harpaz-Rotem, 2013; Kimerling, Gima, Smith, Street, & Frayne, 2007; Maguen et al., 2012; O'Brien & Sher, 2013; Turchik & Wilson, 2010). One study conducted using Department of Veterans Affairs administrative data found that women veterans with MST were eight times more likely to be diagnosed with PTSD, and over twice as likely to be diagnosed with depressive disorder, anxiety disorder, and attempted suicide or self-inflicted injury, as compared with those without MST (Kimerling et al., 2007). Some studies further indicate that among women veterans, sexual assault experienced during military service was more strongly linked to increased PTSD and depression symptoms than assault that occurs outside of military service (Himmelfarb, Yaeger, & Mintz, 2006; Suris, Lind, Kashner, & Borman, 2007). A potential rationale for this finding is that certain characteristics of the military environment, such as supervisors tolerating demeaning comments towards women, may intensify the association between sexual assault and adverse mental health (Sadler, Booth, Cook, & Doebbeling, 2003).

In addition to being associated with adverse mental health, unwanted sexual contact has been linked to alcohol and substance use. Specifically, prior sexual assault can increase risk for substance use/abuse, and substance use/abuse can increase risk for sexual assault (Messman-Moore, Ward, & Zerubavel, 2013; Resnick, Walsh, Schumacher, Kilpatrick, & Acierno, 2013; Ullman, Relyea, Peter-Hagene, & Vasquez, 2013). Among the women who reported unwanted sexual contact in the 2012 DOD Workplace and Gender Relations Survey, 47% indicated that they or the offender were drinking alcohol before the incident (Department of Defense, 2012). Alcohol/substance use in the context of sexual assault is particularly concerning because it may lead to greater injury to the victim (when substances are being used by the offender; Brecklin & Ullman, 2010) and also a higher prevalence of substance use after the incident (Resnick et al., 2012), potentially as a coping mechanism by the victim (Ullman et al., 2013).

One recently conducted qualitative study of U.S. service women deployed overseas indicated that being in a high-stress, sexist environment could facilitate unwanted sexual contact (Burns, Grindlay, Holt, Manski, & Grossman, 2014). In particular, women in the military may face additional gender-related stresses compared to men, such as elevated levels of stress due to sexual harassment (Vogt et al., 2011) and gender harassment (Kabat-Farr & Cortina, 2014), and greater levels of stress due to family separation and perceived

loss of intimate relationships (Skopp et al., 2011). There is a lack of research, however, on the association between military and gender-related stress with unwanted sexual contact.

Our objective was to examine the mental health and substance use factors that were associated with active duty service women's experience of unwanted sexual contact since entering the military. We hypothesized that alcohol/substance use, military and gender-related stress, and adverse mental health indicators (including PTSD, suicidal ideation or attempt, psychological distress, depression, and anxiety), would be positively associated with self-report of unwanted sexual contact among active duty service women.

Method

Partipants and Procedure

We used existing data from the 2008 Department of Defense Survey of Health Related Behaviors among Active Duty Military Personnel (HRBS) public use file, which we obtained from the Department of Defense in October 2012. The 2008 HRBS was a self-administered, anonymous, cross-sectional questionnaire of 28,546 service members (including 20,927 men and 7,619 women) designed to be representative of all active duty personnel. It consisted of a random stratified two-stage sample of all Army, Navy, Marine Corps, Air Force, and Coast Guard personnel on active duty during the time of data collection, from May – July 2008 (Bray et al., 2009; Witt et al., 2009). In the first stage, 64 military installments were selected via probability proportional to size methodology, stratified by service branch and world region. In the second stage, 600 personnel were randomly selected within strata of pay grade and sex to obtain enough completed surveys for women and officers. The survey excluded recruits, academy cadets, and personnel who were absent without official leave (AWOL) or incarcerated. Data were collected in group sessions administered by RTI International (Bray et al., 2009), who informed participants of the voluntary nature of the survey, and consent was implied if the participant stayed to complete the survey. A small percentage of questionnaires were obtained by mail for those not attending the sessions. The survey took approximately 1 hour to complete and the overall response rate was 71.6%. The RTI Institutional Review Board and the TRICARE Management Activity (TMA) Human Research Protection Program for the Office of the Assistant Secretary of Defense (Health Affairs) Human Subjects Research Review Board approved this study.

Measures

In order to measure unwanted sexual contact, the questionnaire contained the following question: "Has anyone ever made or pressured you into having some type of unwanted sexual contact? By sexual contact we mean any contact between someone else and your private parts or between you and someone else's private parts." If the participant responded affirmatively, they were directed to specify at what ages they experienced unwanted sexual contact, specifically "*before 18 years of age*," "*between age 18 and entering the military*," or "*since entering the military*." For the purpose of our analysis, we defined unwanted sexual contact as any positive report since entering the military.

We used dichotomous variables (any vs. none) for binge drinking, illicit substance use, and prescription drug misuse. We defined binge drinking as having four or more drinks per drinking occasion at least once in the past 30 days (National Institute on Alcohol Abuse and Alcoholism, 2013). Illicit substance use in the past 12 months included any reported use of marijuana, cocaine, LSD ("acid"), PCP ("angel dust"), MDMA ("Ecstasy"), other hallucinogens, methamphetamine, heroin, GHB/GBL ("Liquid X" or "Gamma 10"), or inhalants. Prescription drug misuse was defined as use of the drug without a doctor's prescription, taken in greater amounts or more often than the drug was prescribed, or for reasons such as to get "high", or for "thrills" or "kicks." Prescription drug misuse in the past 12 months included any reported use of stimulants (other than methamphetamine), tranquilizers or muscle relaxers, sedatives or barbiturates, pain relievers, or anabolic steroids.

The HRBS included two questions that asked respondents to report individually on family/personal life-related and military-related stress: (a) "During the past 12 months, how much stress did you experience in your family life or in a relationship with your spouse, live-in fiancé, boyfriend or girlfriend, or the person you date seriously?" and (b) "During the past 12 months, how much stress did you experience at work or while carrying out your military duties?" Possible responses were "*A lot*," "*Some/a little*," or "*None at all*." Gender-related stress was assessed with this question: "In the past 12 months, how much stress did you experience as a woman in the military?" with response options of "*A great deal/fairly large amount*," "*Some/A little*," or "*None*."

The presence of a mental health condition was based on a positive screen for further mental health evaluation using scales/cutoffs that have been used in the HRBS for many years and have been described in detail elsewhere (Bray et al., 2010; Witt et al., 2009). In brief, serious psychological distress was assessed using the K-6 (Kessler et al., 2002), a 6-item scale that asks about the frequency of feeling nervous, hopeless, restless or fidgety, so depressed nothing could cheer you up, that everything was an effort, and feeling worthless in the past 30 days (Cronbach's α .93). Anxiety was assessed using items adapted from the Patient Health Questionnaire (Cronbach's α .89) (Spitzer, Kroenke, Williams, & Patient Hlth Questionnaire, 1999). Respondents screened positive for anxiety if they reported feeling nervous, anxious, on edge, or worrying a lot about different things on more than half the days in the past 30 days and additionally reported three or more symptoms in the past 30 days. PTSD was evaluated using the 17-item PTSD Checklist-Civilian Version (Cronbach's α .96), which records experiences of PSTD symptoms within the past 30 days (Weathers, Litz, Huska, & Keane, 1994). Participants screened positive for depression if they reported (a) feeling sad, blue, or depressed for 2 weeks or more in the past 12 months, or (b) two or more years in their lifetime of feeling depressed and felt depressed "much of the time" in the past 12 months; and (c) feeling depressed on one or more days in the past week (Bray et al., 2009). Finally, respondents reported whether they had seriously considered or attempted suicide since joining the military.

Statistical Analysis

For this analysis, we used data from the 7,619 female military personnel surveyed. There were missing data on unwanted sexual contact for 204 women; they were excluded, resulting in a final sample size of 7,415. For other key measures, missing data were less than 5% and were also excluded from the analyses. We calculated descriptive statistics including frequencies and percentages for all variables of interest. In addition, we used Rao-Scott chi-square tests to explore bivariate associations between variables of interest and report of unwanted sexual contact. We then used multivariable logistic regression to determine explanatory variables that were independently associated with the report of unwanted sexual contact. Variables to be added to the model were identified a priori based on previous studies (Kimerling et al., 2007; LeardMann et al., 2013; Suris & Lind, 2008) and included combat deployment, rank, service branch, age, race/ethnicity, marital status, and history of unwanted sexual contact prior to entering the military. Models that examined the association between substance use and unwanted sexual contact additionally included assessments of whether the participant reported any high family-, military-, or gender-related stress, or screened positive for any mental health indicator (depression, anxiety, PTSD, psychological distress, or reported suicidal ideation or attempt). Models that examined the association between mental health indicators and unwanted sexual contact additionally included whether the participant reported past 12 month use of any illicit substances or prescription drug misuse, and past 30 day binge drinking. Finally, models that examined the association between stress and unwanted sexual contact additionally included past 12 month use of any illicit substances or prescription drug misuse, past 30 day binge drinking, and screening positive for any mental health indicator. For all analyses, SAS software version 9.2® (SAS Inc., Cary, NC) survey procedures were used to weight the sample for the multivariable and bivariate analyses. This was done to properly take into account the complex design features of the study, namely the stratified probability proportional to size sampling methodology.

Results

Most women sampled were between the ages of 21–25 years (34.5%), unmarried (54.3%), enlisted rank (78.3%), and identified as Non-Hispanic White (53.4%; Table 1). By design, the sample was representative of each service branch, with 21.1% of women in the Army, 22.4% in the Navy, 16.7% in the Marine Corps, 28.3% in the Air Force, and 11.5% in the Coast Guard. Nineteen percent of women were deployed to a combat zone in the year prior to completing the survey. A total of 995 (13.4%) reported unwanted sexual contact since entering the military. In addition, the prevalence of unwanted sexual contact was higher among women who identified as White (14.8%) and unmarried (16.0%).

For substance use, women who reported misuse of tranquilizers/muscle relaxers were more likely to report unwanted sexual contact since entering the military (Table 2). In addition, there was a strong correlation between unwanted sexual contact and mental health. The prevalence of unwanted sexual contact increased among those reporting higher levels of family/personal life-related stress, military-related stress, and gender-related stress. Similarly, women who screened positive for depression, anxiety, PTSD, and psychological

distress were more likely to report unwanted sexual contact. Finally, unwanted sexual contact was also more prevalent among those reporting suicidal ideation and attempt.

All variables that were significant in the bivariate analysis (except for binge drinking) remained significant in the multivariable analysis after including potential confounders. Specifically, we found that active duty women who reported *a lot* of military-related stress had over two times the odds of reporting unwanted sexual contact as compared to women who reported no military-related stresses (Table 3). In addition, women who reported high amounts of family/personal life-related stress or stress experienced as a woman in the military had almost twice the odds of reporting unwanted sexual contact.

Discussion

Our study provided valuable insight into the mental health and substance use factors associated with unwanted sexual contact among a large sample of active duty service women, who reported a high prevalence of unwanted sexual contact. The relatively high prevalence of unwanted sexual contact was in agreement with findings from the Department of Defense and highlights the need to address the rising epidemic of military sexual harassment and assaults (*Department of Defense Fiscal Year 2012 Annual Report on Sexual Assault in the Military*). Furthermore, our finding that unwanted sexual contact was associated with greater levels of stress, adverse mental health, and tranquilizer misuse calls to attention the need for specialized care for these women as well as an immediate need for prevention interventions.

Previous studies have indicated an association between military sexual trauma and adverse mental health outcomes such as depression, PTSD, or anxiety disorders among women veterans (Kimerling et al., 2007; Maguen et al., 2012; Suris & Lind, 2008). Our study confirmed these associations among a sample of active duty service women. We further identified associations between unwanted sexual contact and high levels of military-related stresses and gender-related stresses. Although it was unclear based on these data whether stress was a cause or result of unwanted sexual contact, one possibility was that being in a high-stress and sexist environment could facilitate unwanted sexual contact due to changes in perceptions of “normal” behavior during war and deprivation of sexual activity during long durations of deployment (Burns et al., 2014). In addition, military cultural factors such as negative views towards women, as well as the tendency for men to outnumber and outrank women, could also haved facilitated an environment of unwanted sexual contact (Burns et al., 2014; Sadler et al., 2003). In contrast, unwanted sexual contact could also have increased stress levels, including PTSD (Kimerling et al., 2007; Rossiter & Smith, 2013). Given the cross sectional nature of the data, we were not able to distinguish between stress that occured because of unwanted sexual contact and unwanted sexual contact that occured as the result of being in a high stress environment. Regardless, these findings suggested a link between the two that may have been facilitated by the military environment.

For substance use, only the reported misuse of tranquilizers/muscle relaxers was independently associated with report of unwanted sexual contact. These findings were somewhat consistent with the National Study of Drug-facilitated, Incapacitated, and Forcible

Rape, which found that sedatives were among the commonly reported substances used among rape cases (Kilpatrick, Resnick, Ruggiero, Conoscenti, & McCauley, 2007). Disturbingly, one of the drugs listed in the HRBS questionnaire under “tranquilizers or muscle relaxers” was Rohypnol or “rufies,” which is a widely recognized date rape drug (Weir, 2001). The lack, however, of event-level data made it unclear whether the use of these substances happened on the same occasion as the unwanted sexual contact. In addition, this finding may be indicative of the lower prevalence of illicit drug use while on active duty as compared with that of prescription drugs (Bray et al., 2010), which makes the use of illicit drugs in active duty populations more challenging to study.

Similar to the relationship between unwanted sexual contact and stress, there was potentially a bi-directional relationship between substance use and unwanted sexual contact. In addition to substance use predicting unwanted sexual contact (Novik, Howard, & Boekeloo, 2011; Resnick et al., 2012), the victim could also use substances as a self-medicating or coping strategy (Kaysen, Neighbors, Martell, Fossos, & Larimer, 2006; Resnick et al., 2012; Ullman & Najdowski, 2009). Self-reported misuse of prescription opioids, for example, has been associated with self-medication for depression in a sample of patients with no substance abuse history (Grattan, Sullivan, Saunders, Campbell, & Von Korff, 2012). Other evidence indicates that persons with mental illness report substance use mainly for management of difficult emotional states and severe symptoms (Pettersen, Ruud, Ravndal, & Landheim, 2013). Our data, however, suggested that substance use among active duty women may play only a minor role in facilitating unwanted sexual contact. Longitudinal studies are needed to better define these associations in a military setting.

The data in our study were susceptible to self-reporting bias. Active duty military personnel may have been hesitant or unwilling to disclose sensitive information, including illicit substance use, adverse mental health, or unwanted sexual contact, out of fear of being punished and therefore this information may well have been underreported. RTI International, however, conducted the HRBS anonymously via a paper questionnaire and took measures to encourage honest reporting. In addition, this was a cross-sectional dataset and therefore we cannot establish causality due to ambiguity surrounding the time ordering of events. The relationships, however, between mental health, substance use, and unwanted sexual contact may be bi-directional. Because we conducted a secondary analysis of existing data, several variables may not have exactly captured the time period for associations of interest. For example, respondents reported binge drinking within the past 30 days but reported unwanted sexual contact since entering the military. A strength of this study was that it included a large sample of active duty women from a random stratified sample that was designed to be representative of all active duty service members (Bray et al., 2009).

The associations between stress related to the military environment (i.e., military and gender-related stress) and unwanted sexual contact have implications for the need to make military structural and cultural changes, in order to limit the amount of stress to which service women are exposed. For example, a shift in military gender norms to reduce sexism, strict sexual harassment policies, as well as reporting systems with effective investigation and prosecution procedures, have the potential to make service women feel more safe in their work environment and to mitigate unwanted sexual contact (Bell, Street, & Stafford,

2014; Burns et al., 2014). One potential way to accomplish this is by prohibiting the use of derogatory terms (e.g., “pussy” or “bitch”) that facilitate discrimination against women (Clemmitt, 2009). Further, although there are arguments against military gender integration, so far it has had no proven negative affect on military readiness (Clemmitt, 2009; Titunik, 2000) and we suggest that further integration is necessary to create a cultural shift to reduce unwanted sexual contact.

The Institute of Medicine identified several potential barriers to reporting substance use problems within the military including stigma, fear of negative consequences, and lack of confidentiality (Institute of Medicine, 2012). These factors, particularly the concern regarding lack of confidentiality, are also likely to discourage reporting of unwanted sexual contact and should be taken into consideration for the improvement of reporting structures. One way that this has been handled by college campuses, an environment arguably similar to that of the military, is through the use of anonymous reporting systems. Some campuses offer amnesty for victims who were in violation of other school policies when assaulted (e.g., while under the influence of drugs; American Association of University Professors, 2012), which could also be applied to a military setting. The feasibility of implementing an anonymous military reporting system should also be explored.

We identified several associations between mental health indicators and substance use with unwanted sexual contact in this large sample of active duty military women. Screening for unwanted sexual contact and its associated health risks should be a priority, particularly among female service members who have experienced a high prevalence of unwanted sexual contact in comparison to men. We suggest continued scrutiny in examining the military environment in attempts to reduce the prevalence of unwanted sexual contact. In addition, we encourage efforts to shift military gender norms to reduce sexism, stricter sexual harassment policies, and improved confidential reporting systems.

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Table 1

Unweighted Frequencies of Characteristics of Female Service members

Variable	*n*	%
Total	7,415	100.0
Age, years		
17–20	928	12.5
21–25	2,559	34.5
26–34	2,203	29.7
35 or older	1,725	23.3
Race/ethnicity		
White	3,956	53.4
African American	1,496	20.2
Hispanic	1,149	15.5
Other	814	11.0
Family status		
Unmarried	3,985	54.3
Married, spouse not present	555	7.6
Married, spouse present	2,801	38.2
Pay grade		
Enlisted	5,809	78.3
Officer	1,606	21.7
Service		
Army	1,567	21.1
Navy	1,662	22.4
Marine Corps	1,235	16.7
Air Force	2,095	28.3
Coast Guard	856	11.5
Combat in past 12 months		
Yes	1,381	19.0
No	5,902	81.0
Unwanted sexual contact before military		
Yes	2,326	31.4
No	5,089	68.6
Unwanted sexual contact since military		
Yes	995	13.4
No	6,420	86.6

Table 2

Frequency of Unwanted Sexual Contact since Entering the Military and Bivariate/Multivariable Associations with Illicit Substance Use and Mental Health Characteristics

	Yes			No				
Variable	***n***	**%**	***SE***	***n***	**%**	***SE***	***AOR***	**95% CI**
Binge drinking, past 30 d[a]	354	16.2**	1.35	609	11.0	0.67	1.20	[0.90, 1.55]
Marijuana use, past 12 mo[a]	32	9.0	3.09	959	12.5	0.61	0.66	[0.37, 1.19]
Substance use not marijuana, past 12 mo[a]	30	14.1	4.69	961	12.3	0.59	1.05	[0.56, 1.97]
Any prescription drug misuse, past 12 mo[a]	203	13.6	1.53	789	12.1	0.59	1.03	[0.78, 1.35]
Stimulant misuse, past 12 mo[a]	22	15.1	4.22	970	12.3	0.69	1.03	[0.49, 2.19]
Tranquilizer/muscle relaxer misuse, past 12 mo[a]	90	17.3**	1.74	902	12.0	0.63	1.35*	[1.05, 1.74]
Sedative misuse, past 12 mo[a]	47	16.9	2.92	944	12.2	0.62	1.18	[0.78, 1.78]
Painkiller misuse, past 12 mo[a]	183	13.0	1.75	810	12.2	0.55	0.99	[0.74, 1.31]
Steroid misuse, past 12 mo[a]	10	9.3	5.79	981	12.4	0.61	0.49	[0.12, 2.07]
Depression, current[b]	380	18.5**	1.17	601	10.2	0.64	2.04***	[1.67, 2.49]
Anxiety, past 30 d[b]	294	17.6*	2.33	694	11.1	0.55	2.20***	[1.76, 2.7]6
PTSD, past 30 d[b]	225	24.8**	2.81	763	10.8	0.52	2.78***	[2.11, 3.67]
PSYCH distress, past 30 d[b]	327	20.3**	1.59	662	10.4	0.56	1.57**	[1.16, 2.13]
Suicide ideation, since entering military[b]	120	27.2**	3.11	808	11.3	0.55	2.76***	[2.05, 3.70]
Suicide attempt, since entering military[b]	40	23.9**	4.70	914	12.0	0.59	2.47***	[1.58, 3.85]

Note. N = 7,415. All variables entered into a separate logistic regression model with unwanted sexual contact since entering the military as the outcome variable. Models were weighted to reflect the proportional representation of respondents in the population and to estimate design-based variances. Percentage is weighted; *n* is unweighted.

AOR = adjusted odds ratio; CI = confidence interval.

[a]Models adjusted for combat deployment within the past 12 months, rank, service branch, age, race/ethnicity, marital status, history of unwanted sexual contact prior to entering the military, and any positive mental health screen or report of high stress.

[b]Models adjusted for combat deployment within the past 12 months, rank, service branch, age, race/ethnicity, marital status, history of unwanted sexual contact prior to entering the military, past 12 month use of illicit substances or prescription drug misuse, and past 30 day binge drinking.

*$p < .05$.

* $p < .01$.

*** $p < .001$.

Table 3

Associations of Stress in Past 12 Months with Frequency of Unwanted Sexual Contact Since Entering Military

Variable	*n*	%	*SE*	*AOR*	95% CI
Family/personal stress					
A lot	289	17.2***	1.56	1.78**	[1.26, 2.52]
Some/A little	523	12.7***	0.56	1.42**	[1.11, 1.82]
None (reference)	175	8.1	0.88	---	---
Military-related stress					
A lot	403	17.3***	1.26	2.44***	[1.63, 3.66]
Some/a little	528	11.0***	0.81	1.68**	[1.17, 2.39]
None (reference)	57	6.0	0.99	---	---
Gender-related stress					
A lot	518	16.5***	1.06	1.98**	[1.29, 3.04]
Some/a little	379	10.6	0.80	1.26	[0.83, 1.92]
None (reference)	82	8.3	1.16	---	---

Note: *N* = 7,415. All variables entered into a separate logistic regression model with unwanted sexual contact since entering the military as the outcome variable. Models were weighted to reflect the proportional representation of respondents in the population and to estimate design-based variances. Percentage is weighted; *n* are unweighted. Models adjusted for combat deployment within the past 12 months, rank, service branch, age, race/ethnicity, marital status, history of unwanted sexual contact prior to entering the military, past 12 month use of illicit substances or prescription drug misuse, past 30 day binge drinking, and any positive mental health screen.

AOR = adjusted odds ratio; CI = confidence interval.

* $p < .05$.

** $p < .01$.

*** $p < .001$.