Behavioral Health Needs and Barriers to Care Among Soldiers Who Report Past Year

Sexual Harassment and/or Sexual Assault

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Abstract

Background
Sexual harassment and sexual assault (SH/SA) continue to be a problem in the military despite extensive efforts to mitigate incidents. The mental health needs of military SH/SA survivors are often unmet due to stigma, military cultural values related to self-reliance, and logistical barriers. This secondary analysis assessed data related to the prevalence of past-year SH/SA across demographics, identified the mental health needs among those who experienced it, and ascertained the perceived barriers to treatment among members of an Army brigade combat team (BCT).

Methods
For this analysis, any affirmative response to either 1) past-year sexual harassment, and/or 2) past-year sexual assault was combined to create a past-year SH/SA indicator variable. Mental health outcomes included major depression, generalized anxiety, post-traumatic stress disorder, suicidal ideation, alcohol use, and insomnia. Perceived barriers to treatment outcomes included stigma, self-reliance, and logistical barriers. Descriptive statistics, chi-square, and logistical regression were used to report findings.

Results
SH/SA incidents were concentrated among young (17-24) junior enlisted (E1-E4) female soldiers; SH/SA survivors reported psychological problems at a higher rate compared to non-victims (73% vs. 31%); and SH/SA survivors reported higher occurrences of stigma and barriers to care compared to non-victims.

Conclusion
The results of this study were mixed. The SH/SA survivors that indicated psychological concerns reported higher rates of stigma and barriers to care but sought mental health care at higher rates
than non-victims that indicated psychological concerns. The gap between SH/SA victimization and BH utilization needs improving as unmet BH needs can lead to a myriad of issues. Changing perspectives on self-reliance as it relates to coping with mental health problems is a way to address this gap. Leaders must emphasize that mental health care is a form of self-reliance, while military mental health professionals must implement effective self-care initiatives and promote available resources to aid soldiers in overcoming their mental health problems.

**Keywords:** military sexual harassment, military sexual assault, mental health, behavioral health pulse, barriers to treatment
This report is a preprint of an article that has been submitted to a journal for publication.

Below is a list of co-authors, in order of their contribution to the final manuscript.

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Acknowledgement

I would like to thank my wife and son who are always in my corner and are the driving force behind all my endeavors. All the successes I have had would not be possible without your love, unwavering support, encouragement, and sacrifice. You two inspire me to be the best person I can be. I love you all more than words can describe.

To my parents and family, thank you for believing in me and pushing me to achieve. Without your unconditional love and guidance, I would not be who I am. Everything I have achieved is because of your encouragement and the path you built for me.

Thank you to Dr. Ron Whalen for your service and mentorship on this project. Thank you for paving the way for Army Social Workers and continuing to make significant contributions to our field.

Captain Ariel Bergeron, I could not ask for a better battle buddy. Thanks for telling me to take a break when I needed it. Keep breaking barriers and I cannot wait to be on your capstone committee one day.

Dr. Shah, thank you for your mentorship and holding me to a high standard. I know that I was all over the place with my capstone and I appreciate your guidance and patience to get me to where I am.

Dr. Ruggiano, I cannot say thank you enough. Every personal and professional problem I brought to your attention was met with the utmost empathy and genuine concern. Your flexibility and solution focused approach was key to my success.
Dedication

This capstone project is dedicated to my late brother Christopher “Chip” Adul Kunhavijit. Your absence from our family’s lives has been immense. Like most little brothers, I followed in your footsteps my entire life. You could have been a doctor, lawyer, astronaut, or anything you wanted, but you were a social worker and a scholar and look at where I am. You had a natural ability to connect with people and saw the value and potential in everyone. You taught me to see the intrinsic value in everyone and I am forever grateful for all that you taught me. Though you are not here for me to thank in person, know that nothing I have accomplished could be possible without you. As we have had to continue our lives without your presence, I have found ways to connect with you and I can still hear your voice encouraging me and lifting me up. I miss our weird conversations. I miss your music recommendations and hearing about your latest adventures following Phish. I just plain miss you. I love you, brother. Rest in peace.
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Introduction

Military sexual harassment and sexual assault garner much attention from military leaders, policymakers, and advocates (the Department of Defense’s definitions of sexual harassment and sexual assault are in Section 1561 of Title 10, United States Code and Department of Defense Instruction 6495.02.). Despite extensive efforts to mitigate incidents of sexual harassment and sexual assault in the ranks, current and past initiatives have not achieved their goals in terms of reducing prevalence (Stander & Thomsen, 2016; Wilson, 2016). According to the Department of Defense’s Sexual Assault Prevention and Response Office (SAPR) Annual Report on Sexual Assault annual report (2022), sexual harassment complaints and sexual assaults increased by 78% and 13% respectively from the prior fiscal year (FY). The Army had the highest increase in sexual assault reports at +26% (total reports=4,081). There is speculation in the report that the precipitous increase in prevalence rates is due to increased reporting and not increased incidents. Also discussed in the report is that the easement of COVID-19 restrictions led to more social interaction, which may have resulted in more incidents.

The rates of sexual harassment and sexual assault across the armed services are staggering. Strategic-level commanders have a responsibility to ameliorate this problem; however, the crux of the problem and responsibility to solve it lies with unit level commanders. To address this problem at the unit-level, commanders need reliable assessment tools to know the scope and intricacies of the problem in their units. This allows commanders in conjunction with unit subject matter experts to develop targeted intervention plans. The Behavioral Health Pulse survey is a relatively new unit assessment tool that unit-level commanders use to assess for a variety of issues including mental health problems, sexual harassment and sexual assault.
prevalence, and stigma. It was the assessment tool used for this analysis. More information about the Behavioral Health Pulse survey and the aims of this study are in the subsequent sections.

**Sexual Assault Prevalence**

Among female service members, rates of combined restricted and unrestricted reports increased from 6.2% to 8.4% between FY20 and FY21. Among male service members, rates increased from 0.7% to 1.5% during this same period (DOD, 2022). Factors such as pay grade/rank, occupational specialty, and the ratio of males to females in a military unit can influence sexual assault prevalence (Breslin et al., 2019; Bell et al., 2018). Regardless of the situational factors, incidents of sexual assault are highest among junior enlisted personnel in the ranks of E1-E4 and between the ages of 17-24 (Breslin et al., 2019; Bell et al., 2018; DOD, 2022). According to the SAPR report (2022), this population accounted for 67% (n=3,717) of all unrestricted sexual assault investigations and 67% (n=1,673) of all restricted reports. In addition to higher prevalence rates among younger junior enlisted service members, female service members disproportionately report higher numbers of sexual assaults. Female service members accounted for 81% (n=4,470) of all unrestricted reports and 77% (n=1942) of all restricted sexual assault reports in FY 2021 (DOD, 2022).

**Sexual Harassment Prevalence**

Total sexual harassment complaints to include formal, informal, and anonymous reports increased from 1,791 to 3,174 (+78%) from FY 2020 to FY 2021 (DOD, 2022). Formal sexual harassment complaints in all service branches including the National Guard increased from 991 to 1,732 (+75%) from FY 2020 to FY 2021. Additionally, there were 1,293 informal complaints and 152 anonymous complaints filed in FY 2021. Sexual harassment rates among females increased from 24.2% to 28.6% (total reports = 65,542) while the rates among males remained
statistically unchanged from 6.3% to 6.5% (total reports = 69,975). Similar to sexual assault survivor demographic information, sexual harassment incidents are concentrated among younger (17-24) junior enlisted service members in the ranks of E1-E4 (DOD, 2022).

A relationship between military sexual harassment and sexual assault (SH/SA) exists, as sexual assault survivors commonly report experiencing sexual harassment prior to their sexual assault (Breslin et al., 2019; Stander and Thomsen, 2016; Bell et al., 2018). For instance, Breslin and colleagues (2020) reported that 20% of female service members who indicated past-year sexual harassment also experienced past-year sexual assault. This was at a rate of 12.1 times higher than sexual assault survivors that did not report past-year sexual harassment. Additionally, 8.4% of male service members that indicated past-year sexual harassment also reported a past-year sexual assault. This was at a rate of 42.0 times higher than sexual assault survivors that did not report past-year sexual harassment. According to the SAPR report (2022), 40% of females and 29% of males indicated sexual harassment prior to their sexual assault. Furthermore, a third of sexual assault survivors reported experiencing sexual harassment by their perpetrator prior to their sexual assault (Gonzalez-Prats, 2017; Stander et al., 2016; Sadler et al., 2018).

**Mental Health and Occupational Impacts**

Military SH/SA survivors are at an elevated risk to develop deleterious mental health issues that can lead to poor health and occupational outcomes. For instance, Chen and colleagues, (2010), reported the lifetime prevalence of anxiety disorders (OR, 3.09; 95% CI, [2.43-3.94]), depression disorders (OR =2.66; 95% CI, [2.14-3.30]), post-traumatic stress disorder (PTSD) (OR=2.34; 95% CI, [1.59-3.43]), sleep disorders (OR, 16.17, 95% CI,[ 2.06-126.76]), and suicide attempt (OR=4.14; 95% CI, [2.98-5.76]) were common associations among
SH/SA survivors. Compared to non-SH/SA victims, female (AOR=3.83) (Lopez et al., 2022) and male survivors (OR=3.27) (Nichter et al., 2022) are both at a higher risk to develop PTSD.

In a study by Averill and colleagues (2019), they reported that male SH/SA survivors in the military meet criteria for lifetime drug use disorder at 5.3 times the rate of female survivors (29.7% vs. 8.3%). The same study reported that differences in lifetime alcohol use disorder (AUD) were marginal (48.4% male vs. 41.7% female); however, males reported a higher prevalence of past-year hazardous drinking (20.3% vs. 4.3%). The lifetime AUD rates among this population far exceed the reported rates in the general population, which stands at 29.1% (Grant et al., 2015).

Monteith et al., (2019) reported that in their sample (n=108), 75% of military sexual assault survivors experienced suicidal ideation post-incident with 27.8% reporting suicidal ideation within the past week. In the same sample, 40.7% attempted suicide post-incident, and 61.7% of those attempted more than once. Lifetime suicidal ideation and attempt post-incident rates among this sample were 67.5% (n=56) and 43.5% (n=47) respectively. In comparison to lifetime prevalence rates for suicidal ideation and attempt among the general Army population (13.9% and 2.4% respectively), these rates are extraordinarily high (Nock et al., 2014).

The negative effects of SH/SA on survivors can have a profound impact on a unit’s readiness due to a decline in personnel strength, low morale, eroded cohesion, poor productivity, and lower retention (Millegan et al., 2015; Bell et al., 2018; Monteith et al., 2019; McManus et al., 2018; Rufs et al., 2022; Luterek et al., 2011; Parnell et al., 2018; Forkus et al., 2021; Hurley et al., 2021). For instance, the rate at which active-duty women diagnosed with PTSD from military sexual trauma (MST) referred to the Integrated Disability Evaluation System (IDES) is disproportionate to those with PTSD from other traumas (73.6% vs. 44.8% of the control group).
Furthermore, MST is the most prominent factor related to IDES referral for female service members (Parnell et al., 2018). For reference, IDES is a joint Department of Defense and Veteran’s Administration disability evaluation process. Together, they determine if a service member is fit for continued military service after being diagnosed with a duty-limiting injury or illness and they determine the disability benefits to which they are entitled (V.A., n.d.).

**Stigma**

Medical separation/retirement of SH/SA survivors is in part due to unmet behavioral health needs. Mental health stigma is common among military SH/SA survivors and deters them from seeking treatment (McGuffin et al., 2021; Zinzow et al., 2015). The reinforcement of “rape myths,” and victim blaming contribute to the perpetuation of mental health stigma among military SH/SA survivors (Hahn et al., 2021). Military SH/SA survivors often hold negative beliefs about seeking help because they feel embarrassed or ashamed due to the military’s cultural value of self-reliance. Given this, survivors fear being viewed as weak for seeking help (Andersen & Blais, 2019; Holland et al., 2016; Turchik et al., 2013; Zinzow et al., 2015).

Though male and female survivors share common views on stigma, some differences do exist. Females fear retaliation and victim blaming, while male fears pertain to the perception of their sexuality and/or masculinity (Buchanan et al., 2014; Eckerlin et al., 2016). Additionally, male survivors are more likely to identify their experience as part of initiation or hazing and not SH/SA (Bell et al., 2018; Eliezer et al., 2019; Powers et al., 2020). These factors contribute to the fact that 67% of women and 89% of men who experienced unwanted sexual contact did not report it (DOD 2022).

**Current Study**

The aims of this study were to analyze an Army BCT’s Behavioral Health Pulse results to:
1) Assess the prevalence of past year sexual harassment and/or sexual assault (SH/SA) victimization across demographics throughout an Army Brigade Combat Team (BCT);

2) Compare the behavioral health needs of SH/SA survivors relative to all other soldiers; and

3) Explore perceived barriers to behavioral health care unique to SH/SA survivors.

**Methodology**

**Behavioral Health (BH) Pulse**

Data for this study are from the U.S. Army’s BH Pulse, which is an optional command visibility tool that provides unit commanders with an anonymous assessment of the behavioral health needs of their Soldiers. Developed by the Walter Reed Army Institute of Research and maintained by the Army Resilience Directorate (ARD), the BH Pulse relies on Behavioral Health Officers (BHOs) assigned to BCTs (BCTs; approximately 4,500 to 5,000 soldiers) to coordinate with subordinate units to encourage maximum voluntary participation among Soldiers available to complete the assessment.

The BH Pulse is administered via mobile smartphone or computer over a specified period (typically two weeks). A single QR code or web link provides access to the BH Pulse assessment, which then requires Soldiers to enter a unique PIN assigned to their company (typically about 100 soldiers per company). Company commanders provide an estimate of soldiers assigned to their unit who are available to complete the BH Pulse during the specified period of collection. Daily feedback is provided to unit leaders on their unit’s progress toward the desired participation level of 70% to promote unit leadership confidence in BH Pulse findings. No personally identifying information (to include IP addresses) is collected on the BH
Pulse. Data are stored in a secure government cloud environment overseen by ARD, and BHOs receive a report of findings, but never raw data.

**BH Pulse for the Current Study**

The BH Pulse assessment was administered to an Army BCT from late December 2021 to January 2022. The assessment collection period was extended by two weeks to promote greater participation among units failing to achieve the desired 70% participation level. Soldiers were not mandated to take the assessment, they could decline to answer any specific question, and they could choose not to submit their survey after completing the assessment. A response was defined as completion of any part of the assessment among submitted surveys. The response rate was 61% (n = 2,914) of available soldiers (N = 4,777). The rates of missing values for individual items in the assessment were generally less than 8 percent; 2 percent of participants did not complete either the past-year sexual harassment or sexual assault measure, 2 to 4 percent did not complete the depression, anxiety, PTSD, suicidal ideation or behavioral health care utilization measures, and 7 percent did not complete the insomnia measure.

**Unit Characteristics and Demographics**

The assessed unit consisted of a brigade headquarters and seven battalions with a total of 37 companies. The unit is mostly comprised of combat arms military occupational specialties as the seven battalions consist of three light infantry battalions, one cavalry troop, one combat engineer battalion, one field artillery battery, and one combat sustainment battalion. Most participants were junior enlisted (E1-E4) (61%), between the ages of 17-24 (52%), male (89%), married/committed (63%), and identified as Caucasian (61%) (see Table 1).
Sexual Harassment and Sexual Assault Variables

The study outcomes related to sexual harassment and sexual assault were focused on the prevalence of any reports of past-year SH/SA among participants. Prevalence was assessed across the demographic categories of age, rank, gender, marital/relationship status, and race and ethnicity. Any affirmative response to either 1) past-year sexual harassment, and/or 2) past-year sexual assault was combined to create a past-year SH/SA indicator variable. Survey respondents are asked if in the past 12 months they experienced sexual harassment and sexual assault.

Behavioral Health Variables

Behavioral health symptoms of major depressive disorder, generalized anxiety disorder, and PTSD were used to compare the behavioral health needs of SH/SA survivors to all other assigned soldiers. Major depression and generalized anxiety were measured using the Patient Health Questionnaire-9 (PHQ-9) and the General Anxiety Disorder-7 (GAD-7) (α=.93 and α=.94 respectively) both developed by Spitzer et al. (Spitzer, Kroenke, & Williams, 1999; Spitzer et al., 2006). PTSD was measured using the 5-item primary care PTSD (PC-PTSD) screen (α=.84) (Prins, et al., 2015). Scores of ≥5, ≥10, and ≥2 were indicative of presence of potential depression, anxiety, and PTSD respectively. A score of ≥7 on the 3-item Alcohol Use Disorder Identification Test – Concise (AUDIT-C) (α=.89) (Bush, et al., 1998; Crawford, et al., 2013) was indicative of meeting screening criteria for alcohol use disorder. A score of ≥12 on the 7-item Insomnia Severity Index (ISI) (α=.92) (Morin et al., 2011) was indicative of meeting screening criteria for insomnia. For analyses, scores on the PHQ-9, GAD-7, PC-PTSD, AUDIT-C, and ISI were dichotomized based on the absence and presence of symptoms according to the cutoff scores. Two modified items from the Composite International Diagnostic Interview (r=.69)— “During the past year, did you: 1) seriously think about committing suicide (Y/N); and 2)
make a plan for committing suicide (Y/N)—were used to measure suicidal ideation (Robins et al., 1989).

**Treatment Barriers and Stigma Variables**

Perceived barriers and stigma were assessed on the following categories: I will be seen as weak; BH services are not available; I don’t know where to get help; it takes courage to get treatment; I prefer to manage my own problems; and I don’t have access to behavioral health services. They were measured on a Likert scale format with the following responses to choose from: “not at all,” “a little,” “somewhat,” “moderately,” and “very much” (see Table 3.).

**Ethical Considerations**

Since BH Pulse is intended to provide commanders visibility on the behavioral health needs of their units, neither informed consent nor an Institution Review Board (IRB) approval are necessary to conduct the assessment. However, additional safeguards were required for this study. First, the BCT commander authorized the use of his brigade’s findings for this study. Next, an IRB approval was obtained from the University of Alabama, which deemed the study exempt from human subject research requirements. Finally, the United States Army Human Research Protections Office completed a secondary review of the University of Alabama IRB approval and concurred with the exempt status determination.

**Data Analysis**

This analysis compared the behavioral health needs, treatment utilization, and barriers to care for SH/SA survivors relative to all other soldiers assigned to an Army BCT. The variables were dichotomized for the analysis. The statistical measures used were descriptive statistics, chi-square, and logistical regression. R statistical software (version 4.1.2) was used to conduct all analyses.
Results

Using a series of chi-square analyses, we evaluated if demographic variables were significantly different for those who experienced SH/SA (Table 1). We found that soldiers who reported past-year SH/SA were significantly more likely to be young (17-24 years old; 66%), junior enlisted (E1-E4; 76%), and female relative to soldiers who did not. Though males reported a higher total number of past-year SH/SA incidents (n=65) compared to females (n=54), overall prevalence was much higher among females (2.6% vs. 17.3% respectively). Marital status and race/ethnicity did not differ between soldiers who reported past-year SH/SA and those who did not.
Table 1. Demographic/Military characteristics by any report of past year sexual harassment and/or sexual assault (SH/SA).

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Overall (N = 2914)</th>
<th>Any SH/SA</th>
<th>χ²</th>
<th>df</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n (%)</td>
<td>No (N = 2792)</td>
<td>Yes (N = 122)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Age</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>17-24 yr</td>
<td>1473 (52)</td>
<td>1384 (52)</td>
<td>80 (66)</td>
<td>9.68</td>
<td>3</td>
</tr>
<tr>
<td>25-29 yr</td>
<td>772 (28)</td>
<td>741 (28)</td>
<td>24 (20)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30-39 yr</td>
<td>480 (17)</td>
<td>463 (17)</td>
<td>15 (12)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>40 yr or older</td>
<td>87 (3)</td>
<td>85 (3)</td>
<td>2 (2)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Rank</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Junior enlisted (E1-E4)</td>
<td>1648 (61)</td>
<td>1549 (60)</td>
<td>85 (76)</td>
<td>11.25</td>
<td>3</td>
</tr>
<tr>
<td>Junior NCO (E5-E6)</td>
<td>627 (23)</td>
<td>607 (24)</td>
<td>18 (16)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Senior NCO (E7-E9)</td>
<td>143 (5)</td>
<td>139 (5)</td>
<td>3 (3)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Officer/Warrant Officer</td>
<td>278 (10)</td>
<td>272 (11)</td>
<td>6 (5)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Gender</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>2497 (89)</td>
<td>2417 (90)</td>
<td>65 (55)</td>
<td>143.70</td>
<td>1</td>
</tr>
<tr>
<td>Female</td>
<td>313 (11)</td>
<td>257 (10)</td>
<td>54 (45)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Marital Status</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Married/Committed</td>
<td>1748 (63)</td>
<td>1667 (63)</td>
<td>70/ (53)</td>
<td>0.30</td>
<td>1</td>
</tr>
<tr>
<td>Other</td>
<td>10397 (37)</td>
<td>988/ (37)</td>
<td>47 (40)</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Race/Ethnicity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td>1688 (61)</td>
<td>1617 (61)</td>
<td>62 (53)</td>
<td>3.34</td>
<td>3</td>
</tr>
<tr>
<td>Black</td>
<td>381 (14)</td>
<td>359 (14)</td>
<td>19 (16)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hispanic</td>
<td>431 (16)</td>
<td>409 (15)</td>
<td>21 (18)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other</td>
<td>275 (10)</td>
<td>257 (10)</td>
<td>15 (13)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Abbreviations: NCO= non-commissioned officer; χ² = chi-squared; df = degrees of freedom

Junior enlisted soldiers (E1-E4) and those between the ages of 17-24 had the highest prevalence rates of SH/SA at 5.16% and 5.43% respectively. The SH/SA prevalence rates among soldiers in the rank of E5 and above including officers were significantly lower compared to the junior enlisted soldier. The differences in prevalence rates among those groups were marginal (E5-E6=2.9%; E7-E9=2.1%; Officers and Warrant Officers=2.2%). In terms of age, soldiers who were 25 and older were significantly less likely to indicate past-year SH/SA. The differences among the 25 and above age groups were marginal; however, the ≥40 reported the lowest prevalence (25-29=3.1%; 30-39=3.1%; ≥40=2.3%).
We used a logistical regression to assess the prevalence of psychological concerns between those who indicated SH/SA and those who did not. In comparison to participants that did not indicate past-year SH/SA, SH/SA survivors reported significantly higher rates of psychological problems (PTSD, depression, and anxiety), suicidal ideation, alcohol misuse, and insomnia (Table 2). Soldiers who reported past year SH/SA were 5 times more likely to meet screening criteria for any psychological problem relative to those who did not (73% vs. 31%). Meeting screening criteria for anxiety was the most prevalent among soldiers that indicated past-year SH/SA (63.9%) (OR, 5.82, 95% CI, [3.98, 8.52]), followed by depression (53.7%) (OR, 5.77, 95% CI, [3.98-.836]), and PTSD (50.8%) (OR, 5.04, 95% CI, [3.49-7.29]). Among the non-victims that indicated past-year psychological problems, anxiety was the highest as well at 23.3%. Past-year suicidal ideation prevalence among SH/SA survivors far exceeded the rate of non-SH/SA victims. In the subcategory “thinking about suicide,” 35.2% of SH/SA survivors indicated “yes” (OR, 5.38, 95% CI, [3.62-7.97]) compared to 9.2% of non-SH/SA victims. Furthermore, 21.3% of SH/SA survivors indicated “yes” to “made a plan to commit suicide” (OR, 6.24, 95% CI [3.89-10.01]) compared to 4.2% of non-SH/SA victims. The past-year alcohol misuse rate was double the rate among SH/SA survivors compared to non-victims (26.2% vs. 13.1%) (OR, 2.36, 95% CI [1.55-3.59]). Past-year insomnia rates among SH/SA survivors were significantly higher than non-victims at (74.6% vs. 40.8%) (OR, 4.25, 95% CI, [2.79-6.48]).
Table 2. Behavioral Health Screening Results for Anonymous Reports of SH/SA (n=2914)

<table>
<thead>
<tr>
<th>Behavioral Health Problem</th>
<th>Any SH/SA</th>
<th></th>
<th></th>
<th>OR (95% CI)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No (N = 2792)</td>
<td>Yes (N = 122)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>no./total no. (%)</td>
<td>no./total no. (%)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Received professional help in the past year</td>
<td>498/2712 (18.4)</td>
<td>52/122 (42.6)</td>
<td>3.30 (2.28, 4.79)</td>
<td></td>
</tr>
<tr>
<td>Mental disorder</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PTSD according to PC-PTSD (≥2)</td>
<td>462/2717 (17.0)</td>
<td>62/122 (50.8)</td>
<td>5.04 (3.49, 7.29)</td>
<td></td>
</tr>
<tr>
<td>Depression according to PHQ-9 (≥5)</td>
<td>454/2710 (16.8)</td>
<td>65/121 (53.7)</td>
<td>5.77 (3.98, 8.36)</td>
<td></td>
</tr>
<tr>
<td>Anxiety according to GAD-7 (≥10)</td>
<td>631/2704 (23.3)</td>
<td>78/122 (63.9)</td>
<td>5.82 (3.98, 8.52)</td>
<td></td>
</tr>
<tr>
<td>Any of above</td>
<td>839/2698 (31.0)</td>
<td>89/122 (73.0)</td>
<td>5.98 (3.97, 8.98)</td>
<td></td>
</tr>
<tr>
<td>Past year suicidal Ideation</td>
<td></td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Seriously thinking about committing suicide</td>
<td>250/2720 (9.2)</td>
<td>43/122 (35.2)</td>
<td>5.38 (3.62, 7.97)</td>
<td></td>
</tr>
<tr>
<td>Made a plan for committing suicide</td>
<td>113/2716 (4.2)</td>
<td>26/122 (21.3)</td>
<td>6.24 (3.89, 10.01)</td>
<td></td>
</tr>
<tr>
<td>Alcohol misuse (AUDIT-C ≥7)</td>
<td>355/2713 (13.1)</td>
<td>32/122 (26.2)</td>
<td>2.36 (1.55, 3.59)</td>
<td></td>
</tr>
<tr>
<td>Insomnia (ISI ≥12)</td>
<td>1085/2658 (40.8)</td>
<td>88/118 (74.6)</td>
<td>4.25 (2.79, 6.48)</td>
<td></td>
</tr>
</tbody>
</table>

Abbreviations: SH/SA = sexual harassment/sexual assault; OR = odds ratio; AOR = adjusted odds ratio; PC-PTSD = primary care posttraumatic stress disorder screen; PHQ-9 = patient health questionnaire; GAD-7 = generalized anxiety; AUDIT-C = alcohol use disorders identification test; ISI = insomnia severity index

Using logistical regression, we evaluated perceived barriers to behavioral health identified by both SH/SA survivors and non-victims. Less than half (42.6%) of those that indicated past-year SH/SA received professional help (OR, 3.30, 95% CI [2.28-4.79]. Table 3 shows the perceived barriers to behavioral health care identified by both SH/SA survivors and non-victims. Stigma and access to care are noted by both; however, SH/SA survivors endorsed significantly higher rates in each category except for “I prefer to manage my own problems.”
Endorsement of that stigma/barrier subcategory was basically equal among survivors and non-victims (58.2.3% vs. 57.3% respectively).

Table 3. Perceived barriers to behavioral health care by past year sexual harassment and/or sexual assault (SH/SA) status.

<table>
<thead>
<tr>
<th>Perceived Barrier</th>
<th>Any SH/SA</th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No (N = 2792)</td>
<td>Yes (N = 122)</td>
<td>OR (95% CI)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>no./total no. (%)</td>
<td>no./total no. (%)</td>
<td></td>
<td></td>
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<tr>
<td>I would be seen as weak.</td>
<td>401/2718 (14.8)</td>
<td>47/122 (38.5)</td>
<td>3.62 (2.48, 5.29)</td>
<td></td>
</tr>
<tr>
<td>BH services not available.</td>
<td>275/2715 (10.1)</td>
<td>26/122 (21.3)</td>
<td>2.40 (1.53, 3.77)</td>
<td></td>
</tr>
<tr>
<td>I don't know where to get help.</td>
<td>245/2717 (9.3)</td>
<td>29/122 (23.8)</td>
<td>3.02 (1.95, 4.68)</td>
<td></td>
</tr>
<tr>
<td>It takes courage to get treatment.</td>
<td>945/2717 (34.8)</td>
<td>63/122 (51.6)</td>
<td>2.00 (1.39, 2.88)</td>
<td></td>
</tr>
<tr>
<td>I prefer to manage my own problems.</td>
<td>1558/2718 (57.3)</td>
<td>71/122 (58.2)</td>
<td>1.04 (0.72, 1.50)</td>
<td></td>
</tr>
<tr>
<td>I don't have access to behavioral health services.</td>
<td>168/2711 (6.2)</td>
<td>22/122 (18.0)</td>
<td>3.33 (2.05, 5.42)</td>
<td></td>
</tr>
</tbody>
</table>

Abbreviations: SH/SA = sexual harassment/sexual assault; OR = odds ratio; AOR = adjusted odds ratio. Models adjusted for rank and gender only as rank and age are highly correlated.

Discussion

The results of this study contribute to our existing knowledge about SH/SA within the military. First, they showed that SH/SA incidents were concentrated among young (17-24) junior enlisted (E1-E4) female soldiers. Second, soldiers that indicated past-year SH/SA were more likely to report psychological problems compared to non-victims. Lastly, the perceived barriers to care and stigma among survivors were higher compared to non-victims.

In comparison to another study that analyzed BH utilization rates among sexual assault survivors in the Army, the BH utilization rate was lower in this BCT. In this BCT, 42.6% of the SH/SA survivors engaged with BH compared to 59.3% reported by Zinzow et al., (2015) in their study with an Army brigade. However, the added sexual harassment variable in this study may explain the lower BH utilization rate; suggesting that individuals who experience an assault may be more likely to seek help than those who experience harassment. It is not clear from the Zinzow et al. (2015) study what type of brigade (i.e., combat arms or support brigade) they drew...
their sample from. Demographic factors may explain the lower BH utilization rates among SH/SA survivors in this BCT. Prior research by O’Brien and colleagues (2015) suggests that males are less likely to seek care after an incident of SH/SA, which may contribute to the lower BH utilization rate in this BCT given that 89% were male. Additionally, the unit studied by Zinzow et al., (2015) had recently returned from a combat deployment. The BH utilization rates among SH/SA survivors while in theater need to be explored as that may increase utilization rates.

It is not surprising that both SH/SA survivors and non-victims equally identified “I prefer to manage my own problems” as a barrier to seeking mental health treatment. Self-reliance is a cultural value in the Army and across the armed services. Creeds across the armed forces emphasize self-discipline, mental toughness, never quitting, and maintenance of oneself. The internalization of this cultural value likely contributes to stigma and unmet behavioral health needs. This is concerning as prior research shows that unmet behavioral health needs have deleterious effects on soldiers and mission readiness (Millegan et al., 2015; Bell et al., 2018; Monteith et al., 2019; McManus et al., 2018; Rufa et al., 2022; Luterek et al., 2011; Parnell et al., 2018; Forkus et al., 2021; Hurley et al., 2021). However, there is opportunity for unit subject matter experts such as behavioral health officers to help service members manage their own mental health care. They can promote and demonstrate how to use available tools to assist with mental health treatment. The VA and DOD have several apps such as PTSD Coach, CPT-Coach, CBT-I Coach, and Beyond MST that service members can download and use for free. These apps include psychoeducation, coping strategies, goal setting, progress monitors, and safety planning that are readily available to review on a smartphone. These apps do not require personal
identifying information to use them, which is a benefit as soldiers fear career implications associated with mental health care.

A 2014 RAND Corps study on mental health stigma in the military found that there were 97 policies that perpetuate stigma. They reported that these policies limit career opportunities, affect security clearances, and impact deployability for service members with a mental health diagnosis or who are receiving treatment. For instance, a mental health diagnosis or receiving treatment can delay or preclude a soldier from serving in certain roles such as drill sergeant, recruiter, or pilot. Additionally, some of these policies contained derogatory language about service members with a mental health diagnosis. Furthermore, lack of progress in treatment can lead to administrative discharge or medical separation. Soldiers are aware of these policies and forgo treatment to avoid the loss of career opportunities and the negative impacts on their mission readiness. The policies that perpetuate stigma complicate encouraging soldiers to seek mental health care. Unfortunately, the BH Pulse survey does not have a measure to assess for perceived career implications and how they contribute to stigma. While it is likely that such policies contributed to mental health stigma among the soldiers in this study, the scope of their impact is unknown. How these policies affect service members’ perception of mental health care and stigma is an area that needs explored.

Among the SH/SA victims and survivors, 42.6% (n=52) indicated they received professional help within the past year. Only 18.4% (n=498) of non-victims that indicated psychological problems received professional help in the past year. This was an interesting finding as the perceived barriers and stigma rates were much higher among SH/SA survivors and most research suggests that stigma is a barrier to care. However, though the SH/SA victims and survivors reported higher rates of stigma, over half (51.6%) indicated “it takes courage to get
help.” A Sharp and colleagues (2014) systematic review found that stigma is not necessarily a barrier to care. Nine of the included studies in their review reported stigma had no impact on treatment-seeking behavior while four of the studies found there was a positive association between stigma and treatment. They also point to the theory of reasoned action/planned behavior, which states that social pressure shapes the intentions to perform an action (i.e., seeking treatment). Therefore, it is plausible that the SH/SA victims and survivors had positive support systems such as peers and leaders that encouraged them to seek care.

Another interesting discovery was that the number of male and female SH/SA victims and survivors that sought professional help in the past year was nearly equal. Of those that received professional help, 29 were female and 21 were male (two of the SH/SA survivors did not report their gender). This was an unexpected finding as male SH/SA survivors tend to engage in mental health care treatment at much lower rates than females (O’Brien et al., 2015). Studies show that a positive command climate and trust in leadership increase both reporting of SH/SA incidents and behavioral health utilization among survivors (Sadler et al., 2018). The BH Pulse survey includes measures on command climate and perception of leadership. However, this analysis did not compare those measures among SH/SA victims and survivors to gauge their impact on mental health care utilization. The theory addressed above and/or a positive climate may explain higher rates of BH utilization among male SH/SA survivors (Sharp et al., 2014).

The measures used to assess for mental health problems are valid assessment tools with a high internal consistency; however, they are not diagnostic. It is feasible to assume that some of the soldiers that indicated past-year psychological problems had subclinical symptoms, which did not require BH intervention. This could help explain why less than half of the SH/SA survivors sought behavioral health care.
Combining sexual harassment and sexual assault into a single variable is a novel way to analyze those variables in a military unit. In a BCT, the prevalence of the two variables independently would not provide strong enough data for meaningful analysis. Given that the two variables are highly correlated, combining them is a way for unit leaders and BHOs to analyze the scope of the problem in their unit and develop targeted intervention strategies.

**Recommendations**

To close the gap between SH/SA victimization and receiving mental health care, interventions should focus on altering perceptions of stigma and self-reliance. Leadership plays a key role in ensuring their soldiers feel safe and empowered to seek care when needed. A unit culture built on psychological safety can reduce stigma and increase behavioral health utilization. How to build cohesion and foster psychological safety must be embedded in leader development training such as Reserve Officers’ Training Corps, Officer Candidate School, service academies, and the non-commissioned officer education system. These skills must be reinforced and practiced in unit leader development programs. Additionally, new recruits must be informed about how to seek help and learn about the facts and myths surrounding mental health care. Furthermore, unit leaders can help normalize BH care and increase positive attitudes towards treatment by involving unit behavioral health officers in resilience and effective communication training.

Self-reliance is a valued trait and expected in the military culture. Self-reliance and fortitude are important attributes in many regards; however, when struggling with mental and emotional problems, self-reliance can exacerbate symptoms. Leaders must convey that seeking care is self-reliance. Furthermore, unit behavioral health officers and other subject matter experts
must promote self-help products and resources to aid service members who want to handle their problems on their own.

The BH Pulse survey needs a follow-on question to affirmative SH/SA responses regarding if the incident occurred in their current unit. Service members move and change units often and turnover rates are upwards of 40-50% in a calendar year. Therefore, affirmative responses to past-year SH/SA may not provide an accurate depiction of the prevalence within that unit. An additional follow-on question regarding the perpetrator (i.e., superior, peer, or intimate partner) would provide a better understanding of the scope of the problem and help in the development of intervention planning. Additionally, it is common for soldiers to view seeking mental health care as something that will negatively affect their careers. Currently, BH Pulse does not assess for this stigma variable, which would be helpful to ascertain for the development of de-stigmatization initiatives.

The policies that reinforce stigma need updating. Derogatory language about service members with a mental health diagnosis needs removed from policies. The policies that impose career implications on those with mental health diagnosis or who are treatment need changed where applicable. The impact of these policies as they relate to stigma and intention to seek care is unknown and needs further investigation. Several studies identify perceived career implications as a barrier to treatment. However, to the authors’ knowledge, none specifically tie these barriers to policy.

**Limitations**

As stated above, the past-year timeframe for SH/SA may not provide an accurate depiction of the number and prevalence of SH/SA. Given that service members change units often it is likely that some of those who indicated past-year SH/SA experienced it at a different
unit or duty station. Therefore, there is an unknown margin of error in the SH/SA prevalence rates in this unit.

Due to SH/SA being combined as a singular variable for data analysis in this study, no comparisons can be made regarding independent sexual harassment and sexual assault prevalence rates in this BCT compared to rates across the Army. In FY 2021, the sexual assault prevalence rate across the Army was 8.4% among females and 1.5% among males. The sexual harassment prevalence across the DOD was 28.6% among females and 6.5% among males (DOD, 2022). The total SH/SA prevalence in this BCT among females was 17.3% and 2.6% among males. Based on this, one can infer that sexual harassment was lower in this BCT, but no inference regarding sexual assault prevalence is possible.

Implications for Future Research

Pretest-posttest design studies using BH Pulse to measure an intervention aimed at addressing the gap between SH/SA victimization and BH utilization are needed. However, challenges related to operational tempo, training, and personnel turnover are significant barriers to this type of study design that must be accounted for in future studies. Future research on this topic needs to address the identified limitations and methodological issues of this study. Unit BH officers who administer BH Pulse need to develop strategies to increase participation rates.

Conclusion

The SH/SA survivors that indicated psychological concerns reported higher rates of stigma and barriers to care; however, they sought mental health care at higher rates than non-victims that indicated psychological concerns. The gap between SH/SA victimization and BH utilization needs improving as unmet BH needs can lead to a myriad of issues. Changing perspectives on self-reliance as it relates to coping with mental health problems is a way to
address this gap. Additionally, given that self-reliance is the preferred method for soldiers to
manage their mental health, unit behavioral health officers must develop and promote effective
self-care initiatives and products for soldiers to utilize. Lastly, policies that perpetuate stigma
need changed as the message of get help is marred by the fact that that help may result in career
implications and/or separation from service.
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