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Student and Nonstudent National Guard Service Members/ Veterans and their Use of Services for Mental Health Symptoms

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Abstract

Objective—To compare mental health symptoms and service utilization among returning student and nonstudent Service Members/Veterans (SM/Vs).

Participants—SM/Vs ($N=1439$) were predominately white (83%) men (92%); half were over age 30 (48%) and 24% were students.

Methods—SM/Vs completed surveys six months post-deployment (October 2011–July 2013).

Results—Students and nonstudent SM/Vs did not differ in positive screens for depression, anxiety, hazardous drinking, or Post-traumatic Stress Disorder (PTSD). Students ($n=81$) and nonstudents ($n=265$) with mental health symptoms had low levels of mental health service use (e.g., VA, civilian, or military facilities), at 47% and 57% respectively. Fewer students used VA mental health services. Common barriers to treatment-seeking included not wanting treatment on military records and embarrassment.

Conclusions—Like other returning SM/Vs, student SM/Vs have unmet mental health needs. The discrepancy between potential need and treatment-seeking suggests that colleges might be helpful in further facilitating mental health service use for student SM/Vs.

Keywords

college students; mental health; service members; service utilization

Service Members/Veterans (SM/Vs) returning from the conflicts in Iraq and Afghanistan have the opportunity to take advantage of the Post-9/11 GI Bill in order to further their education and job training. Such benefits, which include full tuition to public, in-state universities (or a specified amount for private or out-of-state universities), a housing allowance, and a stipend for books and supplies, have increased the accessibility of education to SM/Vs. Since this bill's implementation in 2009, the number of SM/Vs

accessing Post-9/11 GI bill benefits has increased each year, and in fiscal year 2012, there were over 640,000 beneficiaries¹. When other educational benefit programs are considered (e.g., Montgomery GI Bill, National Call to Service) over 850,000 SM/Vs used Veterans Benefits Administration educational benefits in fiscal year 2012, with benefits primarily applied to undergraduate education¹.

Research on how to best serve the unique population of student SM/Vs is limited², yet according to the Center for Collegiate Mental Health 2012 Annual Report³, SM/Vs account for a substantial portion of undergraduate students in the United States. About 2% of all undergraduates, and nearly 4% of male students are SM/Vs³. Given the use of educational benefits among SM/Vs, college campuses may need to adapt services to meet the needs of this sub-population of students and the VA may need to more actively partner with campus services to augment access to health care.

Of particular concern are mental health symptoms among returning SM/Vs. According to screening assessments, 20% of returning SM/Vs in the active components and 42% of those in the reserve components may need further evaluation for mental health or psychosocial concerns within three months after returning⁴. Furthermore, 29% of SM/Vs in a multi-campus study reported that highly stressful military experiences continue to bother them³, and compared to their non-military student peers, student SM/Vs report higher rates of anxiety and hostility⁵. In particular, research also indicates that both active and National Guard SM/Vs experience further increases in symptoms from three to twelve months post-deployment⁶.

Given the influx of SM/Vs in college, and the high rates of mental health concerns among returning SM/Vs, it is important to understand the mental health needs of student SM/Vs because untreated mental health symptoms may hinder academic success, in addition to impacting other meaningful aspects of their lives. For example, among SM/Vs who had no combat exposure, prior research has found that a measure of PTSD symptoms negatively correlated with educational self-efficacy; PTSD symptoms were also related to lower GPA and academic amotivation (although these findings occurred among both SM/V and non-SM/V students)⁷. Research with general samples of college students supports the association of psychiatric distress with lower academic performance^{8,9}.

Little is known about the mental health status, treatment needs, and mental health service utilization of newly returning student SM/Vs. Among a convenience sample of over 400 student SM/Vs, 98% of whom served in Operation Enduring Freedom/Operation Iraqi Freedom (OEF/OIF), 34.6% met screening criteria for “severe anxiety,” 23.7% for “severe depression,” and 45.6% had significant symptoms of Post-traumatic Stress Disorder (PTSD)¹⁰. Another study of student SM/Vs (n=145) found rates of depression, anxiety, and PTSD similar to civilian students¹¹; however, most (68%) had been separated from the military for over a year (7 years on average), which may not reflect the current returning population of student SM/Vs. Another sample of 169 student SM/Vs found that 5–9% had clinically significant PTSD symptoms.⁷

In addition, a multi-campus study of 406 OEF/OIF student SM/Vs who completed self-report surveys found that 15% reported a lifetime diagnosis of PTSD and 7.6% reported being diagnosed in the past-year. Compared to non-SM/V students, SM/Vs were significantly more likely to report heavy episodic drinking, riding with an impaired driver, and being in a physical fight¹². Additionally, heavy drinking and fighting were significantly associated with increased odds of reporting a past-year PTSD diagnosis¹³. Consistent with Widome and colleagues'¹² findings, prior research suggests that student SM/Vs report similar levels of heavy episodic drinking compared to their non-SM/V student peers and heavy episodic drinking by student SM/Vs has been positively correlated with symptoms of depression, anxiety, and PTSD¹¹.

A qualitative study found that the six SM/Vs interviewed had at least mild symptoms of PTSD, but none disclosed treatment seeking.¹⁴ The Center for Collegiate Mental Health nationwide study reported that students with military histories were less likely to seek counseling than students with no military connection⁵. Availability of VA benefits or private insurance to seek services elsewhere may be a possible reason for low campus-based mental health service utilization among SM/Vs, though stigma and perceived barriers to treatment may be influential as well¹⁵⁻¹⁸. In addition, prior research with student SM/Vs found that a PTSD diagnosis was associated with campus alienation¹⁹, which could affect the use of campus-based services. It is not clear if returning SM/Vs who are students are more or less likely than other SM/Vs to seek mental health services when they are experiencing symptoms. Student SM/Vs may have more conflicting demands (e.g., school in addition to family, work, etc.) that make it difficult to prioritize treatment. Alternatively, educational achievement is associated with willingness to seek mental health care²⁰, thus student SM/Vs may be more likely to avail themselves of mental health services. College counseling services, when available, may offer another convenient, lower cost treatment option for student SM/Vs that is not available to nonstudent SM/Vs.

Additional research can help to inform outreach and counseling for student SM/Vs. The current study focuses on National Guard members given their risk for increased symptoms post-deployment⁶ and relatively higher mental health need than active component members⁴. The present study aims are to: 1) compare rates of positive screens for depression, anxiety, PTSD, and hazardous drinking among returning National Guard SM/Vs who are students versus those who are not students; 2) compare rates of mental health service utilization among National Guard SM/Vs students and nonstudents; and 3) describe self-reported barriers to treatment seeking among student National Guard student SM/Vs with clinically significant mental health symptoms. In addition to identifying ways in which student SM/Vs are similar to or differ from their nonstudent SM/V peers, such information may be useful to campus outreach programs and student SM/V-specific programming, including helping to identify outreach, linkage, and counseling training that campus counselors may need or to inform decisions about linkage to VA care.

METHODS

Procedure

As part of a larger study of a peer outreach program in National Guard armories and the outcomes of National Guard SM/Vs over time, SM/Vs were recruited in person during monthly drill weekends or by mail using a variation of the Dillman method²¹ approximately 6 months after they returned home from overseas deployment. Participants were briefed about their rights as participants and risks of participation by study staff collecting the data and by written materials included with the survey. The Institutional Review Board approved a waiver of written informed consent. The National Guard provided research staff with a list of all SM/Vs who deployed during the study period and were in units approached by study staff. Survey packets were prepared for individuals using this list. For data collected on drill weekends, a member of the study team visited the unit and briefed SM/Vs about the survey, emphasizing the voluntary and confidential nature of participation. To limit disruptions to training, staff distributed the survey packets and stayed on-site for several hours to collect surveys completed during non-scheduled times. Packets that were not distributed on-site were later mailed via USPS and follow-up surveys were sent up to two more times to non-responders. Of 2,841 surveys distributed (1,161 in person, 1,680 by mail), 189 mailed surveys were returned undeliverable. A total of 1,449 surveys were returned, 1,012 in person and 437 by mail to study staff, resulting in a 55% response rate (1,449/2,652). The survey took 30–45 minutes to complete. Institutional Review Board approval was obtained through the [location removed for blind review] Human Studies Committee and the protocol was reviewed and endorsed by the Army National Guard Office of the Chief Surgeon and the Army Human Research Protections Office.

Participants

Our data come from returning National Guard SM/Vs. Since September 2011, an estimated 40% of the troops in overseas conflicts have been National Guard Members; these SM/Vs continue their training during drill weekends and annual training after they return. They remain eligible for future overseas deployments, with many serving multiple deployments. Participants were 1,449 National Guard SM/Vs from a Midwestern state who were deployed between October 2011 and July 2013. A total of 1,439 responded to an item inquiring about student and employment status, and were included in the current analyses. Nearly one-quarter (24%) of the participants indicated that they were current students. A majority of the sample were white (83%) and men (92%). Forty-four percent of participants were young adults, aged 22–30; although about half were over age 30 (48%). Additional demographic characteristics are displayed in Table 1.

Measures

Student Status and Other Demographics—Student status was assessed using a modified version of an item from the World Health Organization Health and Performance Questionnaire, Clinical Trials version²². Participants were asked to check all that applied regarding their “current work situation” from this list: homemaker, student, on maternity or paternity leave, on illness or sick leave, on disability, working full-time, working part-time, unemployed looking for work, unemployed not looking for work, retired, or other.

Participants were asked to indicate other demographics, including age range (selected from 18–21, 22–30, 31–40, 41–50, over 50), gender, marital status, race/ethnicity (categorized as White and Non-White based on the low proportion of non-Whites), educational level, income, and military rank.

Patient Health Questionnaire (PHQ-9)—The PHQ-9 is a 9-item self-reported scale that corresponds to the diagnostic criteria (e.g., feeling down, loss of interest, poor appetite/overeating) for major depressive disorder used to screen for depressive symptoms^{23,24}. Response options range from 0 (“Not at all”) to 3 (“Nearly every day”); participants rated how often they were bothered by each symptom over the past two weeks. Prior research has supported the reliability and validity of this measure and has indicated that a total score of 10 or higher has acceptable specificity and sensitivity for identifying the presence of major depressive disorder^{23–26}. Internal consistency was .91 in the present study sample.

Generalized Anxiety Disorder – 7 (GAD-7)—The GAD-7 is a 7-item scale that assesses symptoms of anxiety (e.g., feeling nervous, trouble relaxing, worry)²⁷. Although developed for assessing GAD, this scale characterizes anxiety symptoms broadly. Participants used a 4-point scale (0 = “Not at all” to 3 = “Nearly every day”) to indicate how many days during the past two weeks they experienced each symptom. A total score of 10 or higher is indicative of a GAD diagnosis. Internal consistency in the current sample was $\alpha = .94$.

PTSD Checklist (PCL)—PTSD symptoms were assessed with this self-report measure of the 17 DSM-IV PTSD symptoms²⁸. In reference to the most distressing event (military or otherwise) they ever experienced, participants used a scale from 1 (“Not at all”) to 5 (“All the time”) to indicate how often they experienced each symptom (e.g., distressing memories and dreams, re-living the event) during the past 30 days. The PCL has excellent internal consistency and is correlated with other PTSD measures^{28–30}. Participants were considered to have significant PTSD symptoms if PCL scores were >50 . Internal consistency in the present sample was .97.

Alcohol Use Disorder Identification Test-Consumption (AUDIT-C)—Participants completed the AUDIT-C³¹, a screening questionnaire for hazardous drinking. Three items assessed frequency of drinking, the quantity of standard drinks consumed on a typical drinking day, and the frequency of heavy episodic drinking (six or more drinks on one occasion). Prior research supports the reliability and validity of the AUDIT-C^{31,32}, with a recent review supporting the sensitivity and specificity of a cut-point of 4 for men or 3 for women as indicative of hazardous drinking³². Internal consistency reliability in our sample was adequate at .76 and was similar to the coefficient (.75) reported in another study of returning veterans³³.

Short Form-12 Health Survey (SF-12 version 2)—This 12-item measure provides a brief, overall summary of physical and mental health functioning in the past four weeks³⁴. Items assess one’s subjective opinion on his/her health (e.g., “Excellent” to “Poor”) and the extent to which physical health and emotional problems limit day to day activities (e.g., interfering with ability to accomplish what one would like). Standardized scores are

computed for both physical and mental health component summaries with a mean of 50 and standard deviation of 10. Internal consistency in our sample was .83 for the physical component and .84 for the mental component.

Perceived Stigma and Barriers to Care—Participants completed 20 items asking about “concerns that might affect your decision to receive mental health counseling or services if you ever had a problem” that were not specific to any type of treatment location. These items have been used in prior research among military members^{15,16,35–37}. Responses were on a five-point Likert scale ranging from “Strongly disagree” to “Strongly agree.” For this analysis, responses of “Agree” or “Strongly agree” were combined to represent an affirmative response to a particular item. These items, which reflect stigma (e.g., “I would be seen as weak”) and barriers (e.g., “I don’t have adequate transportation), are shown descriptively in Table 2.

Mental health service utilization—Mental health service utilization in the past-year was assessed with items adapted from prior research³⁶ that asked whether participants had “received mental health services for a stress, emotional, alcohol, or family problem” from several facilities. Response options were: Mental health professional at a VA hospital or Community Based Outpatient Center (CBOC; not including VetCenters), General medical doctor at a VA hospital or Community Based Outpatient Center (CBOC; not including VetCenters), Mental health professional at a military facility, general medical doctor at a military facility, mental health professional at a civilian facility, general medical doctor at a civilian facility, and Military Family Life Consultant. Another question asked about mental health services received from VetCenters. Responses were combined to characterize three locations, of which participants could endorse more than one: military treatment facility (mental health professional, general medical doctor, and/or Military Family Life Consultant), VA/Vet Center treatment (mental health professional and/or general medical doctor at a VA hospital, community-based outpatient clinic, or counseling at a Vet Center), and civilian facility (mental health professional or general medical doctor). An affirmative response to at least one of the above items was used to create a dichotomous (yes/no) variable reflecting *any* mental health treatment in the past year. One item asked which types of services were received in the past 12 months (medication, individual therapy, group therapy, family/ marital therapy, substance abuse treatment). Individual, group, and family/ marital therapy were combined to reflect any therapy in the past year.

Statistical Analyses

For the present analyses, SM/Vs were divided into two groups, students and nonstudents, based on their responses to the item assessing employment status. Independent sample t-tests and chi-square analyses were used to examine differences in students and nonstudents on demographic, mental and physical health, and service utilization variables. Multivariable logistic regression was used to evaluate the relationship of student status with mental health symptoms, adjusting for age, gender, and race. All analyses were performed using SAS version 9.3.

RESULTS

Demographics of Student SM/Vs Compared to Nonstudent SM/Vs

As shown in Table 1, there were several statistically significant differences between student and nonstudent SM/Vs. A larger proportion of students were: female (13.6% vs. 5.9%), 22–30 years old (63.5% vs. 37.3%) or 18–21 age range (12.4% vs. 6.5%), single (59.6% vs. 36.0%), and enlisted (61.8% vs. 37.7%). Students were also more likely to have an income less than \$25,000 per year (45.2% vs. 23.4%). As would be expected, more students indicated “some college” as the highest level of education than did nonstudents (77.6% vs. 47.8%).

Mental Health Symptoms among Student and Nonstudent SM/Vs

As shown in Table 3, there were no significant differences between student and nonstudent groups in rates of clinically significant depressive, anxiety, or PTSD symptoms, or for hazardous drinking. In multivariable analyses adjusting for age, gender, and race, there were also no significant relationships between student status and these variables. In the full sample, 14.3% screened positive for PTSD, 15.3% for anxiety, 18.6% for depression, and 49.1% for hazardous drinking. Rates of screening positive for *any* of the three assessed domains of mental health (depression, anxiety, or PTSD) were not different between groups, with about one-quarter of each having any significant symptoms. While there was no significant difference between students and nonstudents on the SF-12 mental health measure, students did score slightly higher on the physical component, indicating better physical functioning among students. Furthermore, in examining the single item on the AUDIT-C that assesses heavy episodic drinking, 64% of students and 67% of nonstudents had at least 6 drinks on a single occasion in the past year.

Mental Health Diagnoses and Services Use among Student and Nonstudent SM/Vs

Among those 346 SM/Vs who screened positive for depression, anxiety, and/or PTSD, we compared students and nonstudents on past-year service utilization (Table 4). Both student ($n=81$) and nonstudent SM/Vs ($n=265$) with mental health symptoms had low levels of mental health services use, at 46.9% and 56.7% respectively. There were no statistically significant differences in rates of receiving any mental health treatment, receipt of treatment from a military or civilian facility, or in psychotherapy or medication usage. A significantly larger proportion of nonstudents with symptoms received VA/Vet Center services (44.5%) than did students (30.9%; $p=.029$). The overall pattern of results suggests that among both student and nonstudent SM/Vs, many who screened positive for a mental health disorder did not receive any mental health treatment in the past year. Finally, among the 698 SM/Vs who met the hazardous drinking cut-off on the AUDIT-C, 12 (1.7%) had substance abuse treatment, one of whom was a student.

Use of Services among Student SM/Vs with Mental Health Symptoms

Among the 81 student SM/Vs with mental health symptoms, 46.9% received mental health treatment in the past year, with 30.9% accessing services in the VA/Vet Center, 25.9% in military facilities, and 24.7% in civilian facilities. There were no significant variables

associated with use of services among student SM/Vs, including gender, age, race/ethnicity, education, marital status, income, military rank, depression, anxiety, PTSD, and hazardous drinking. For those students who had a positive depression, anxiety, or PTSD screen, but who did not receive any mental health treatment in the past year, perceived barriers to seeking mental health treatment are presented in Table 2. The most frequently cited barrier was not wanting treatment to appear on military records (42.9%), followed by embarrassment (31.0%), concerns that it might harm one's career (28.6%), concerns that the visit would not remain confidential (28.6%), difficulty scheduling appointments (26.8%), and being seen as weak (26.2 %).

COMMENT

The data presented from this study of returning National Guard SM/Vs indicate that many SM/Vs have unmet mental health needs, including students. Despite the emphasis on post-deployment mental health screening and expanded VA services, large numbers of SM/Vs report recent mental health symptoms with no treatment. Notably, in our analyses student SM/Vs did not differ substantially from nonstudent SM/Vs in terms of rates of mental health problems and service utilization, with the exception that fewer students reported accessing VA and Vet Center mental health services than nonstudents. Given that many college campuses offer counseling services for free or at a reduced cost, and these data suggesting that students may be less likely to access services through the VA, campus counseling may be an accessible setting for addressing student SM/Vs' mental health. However, it is not known the extent to which SM/Vs in our sample were attending campuses where mental health services were offered or available.

Many student SM/Vs with mental health symptoms are not accessing mental health services, which may compromise their academic success. Although college student and counseling organizations have called for and developed services dedicated to the unique needs of SM/Vs (e.g., American College Health Association's Wellness Needs of Military Veteran Students Coalition), and campus-based SM/V outreach and programming has emerged in many colleges in the Post 9/11-era, such programming may not be uniformly available in all campus settings. This study indicates that despite the availability of healthcare through the VA for OEF/OIF Veterans, student SM/Vs were less likely to seek services in VAs and Vet Centers than their nonstudent counterparts. Thus, there may be a need for greater outreach, screening, and linkage of these students to appropriate, accessible, and convenient treatment sources, on- or off-campus. Given that more and more SM/Vs are returning and using education benefits, the college setting could offer an opportunity for ongoing screening and intervention for this population in order to help promote their academic success. This may be helpful given that student SM/Vs are less likely than non-SM/V students to seek counseling⁵. Further training for clinicians in the college setting or in the local referral-base in evidence-based practices for common diagnoses among SM/Vs (e.g., PTSD), military culture, and the unique needs of this population may be necessary to address these students' needs^{38,39}. In addition, increased partnership between the VA and campuses may help to connect student SM/Vs with VA mental health services.

Consequences of alcohol use and heavy episodic drinking among college students are ongoing concerns among college administrators and health professionals^{40,41} as well as the military⁴². About half of our sample met criteria for hazardous drinking, which is similar to some college student samples^{43,44}, although somewhat higher than others⁴⁵. More importantly, very few of those who screened positive had any treatment in the past year. Brief intervention approaches to reducing risky drinking have been supported among college students⁴⁶ and may also be appropriate for student SM/Vs or could be adapted for this population. In addition, given the rate of risky drinking among student SM/Vs, and high level of mental health symptoms, counseling for student SM/Vs may also need to address dual diagnoses.

Furthermore, efforts may be needed to reduce the stigma associated with mental health and/or substance abuse treatment as well as perceived barriers to care among student SM/Vs. Particularly, 43% of untreated students in this sample had concerns about treatment being in their military records, 31% would be embarrassed, and 29% thought treatment might harm their career. About one-quarter said they thought they would be seen as weak. While stigma-reduction efforts are a concern in the general population^{47,48}, they may be particularly important for SM/Vs who have become accustomed to a military culture that emphasizes self-sufficiency and eschews weakness³⁸. Because campus-counseling centers are often involved in outreach and education, they may consider the unique stigma-related beliefs of SM/Vs in providing such programming.

In addition to beliefs regarding stigma, untreated students also endorsed barriers such as difficulty scheduling appointments (27%), concerns about confidentiality (29%), lack of trust of mental health professionals (17%), and costs (21%). As these barriers were cited by substantial minorities of untreated students, addressing perceived barriers to treatment among student SM/Vs may need to be highly individualized and/or setting-specific. Thus, multi-pronged approaches may be needed that are informed by the barriers identified in local settings. For example, to address scheduling concerns, VA-based and campus counseling services may need expanded hours to accommodate the schedules of student SM/Vs, many of whom are older than traditional students, are married or cohabitating, or have children in the home and therefore could have different, competing scheduling demands. As noted in prior work, counseling centers often have limited hours and availability that may not meet demand⁴⁹ and most VA services occur during regular business hours, although VA clinic hours are beginning to expand. In addition, campus partnerships with VAs and Vet Centers may be necessary in helping student SM/Vs who need specialized mental health care reach VA mental health clinics.

Limitations

While these data provide useful information on mental health symptoms and service utilization among student and nonstudent SM/Vs returning from recent deployment, there are some limitations. First, our survey lacked information on the types of settings where students were enrolled (e.g., community colleges, four-year private or public universities, etc.) and while we had data on the broader category of civilian/community mental health service use, we did not have data on the use of campus-based counseling, specifically. Such

information would be helpful in understanding barriers to mental health service utilization given that different types of campuses may have differing capacities for mental health services and student SM/V outreach programs. Another limitation is that these are cross-sectional data, which inhibit causal interpretations about reasons for mental health service use. Further, generalizability to all populations of student SM/Vs is limited; recently returning SM/Vs may have different rates of symptoms and unmet needs than those who have returned from deployment several years previously. Further this sample includes only National Guard SM/Vs and thus does not represent all military components. However, National Guard SM/Vs have been noted to have higher levels of mental health need than active component SM/Vs and may be a population of particular interest.⁵⁰

Conclusions

Future research is needed to understand the factors impacting student SM/Vs' mental health, barriers to care, and ultimately successful approaches for screening and intervening when needed for the college SM/V. This population of student SM/Vs remains understudied and research is needed to develop effective protocols and approaches for assisting SM/Vs with mental health issues and promoting academic success. Student SM/Vs are typically not uniformed when on campus and therefore may not be identified as SM/Vs.^{38,51} Thus, recent calls for efforts to identify these SM/Vs, improve policies addressing the quality and accessibility of campus mental health services and facilitate referral to the VA and other mental health organizations, particularly for Veterans with severe conditions^{49,52}, could be necessary for this population of students. Because evidence-based treatments for symptoms (e.g., depression, anxiety, PTSD, alcohol use) commonly experienced by student SM/Vs exist, initiatives to improve student SM/Vs' health and well-being may be effective if they focus on outreach, campus clinician training and access, and linkage to VA/Vet Center services, as part of a holistic model for assisting student SM/Vs' transitions⁵³.

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Table 1

Demographics of National Guard Service Members/Veterans by student status

	Full Sample N = 1439 N (%)	Students N= 350 N (%)	Nonstudents N=1089 N (%)	Significance
Male	1315 (92.2%)	299 (86.4%)	1016 (94.1%)	***
Female	111 (7.8%)	47 (13.6%)	64 (5.9%)	
Age				***
18–21	113 (7.9%)	43 (12.4%)	70 (6.5%)	
22–30	625 (43.7%)	221(63.5%)	404 (37.3%)	
31+	693 (48.4%)	84 (24.1%)	609 (56.2%)	
White	1183 (82.8%)	283 (81.8%)	900 (83.2%)	<i>ns</i>
Non-White	245 (17.2%)	63 (18.2%)	182 (16.8%)	
Education				***
HS/GED	376 (26.2%)	30 (8.6%)	346 (31.8%)	
Some college	790 (55.1%)	270 (77.6%)	520 (47.8%)	
Bachelors+	269 (18.8%)	48 (13.8%)	221 (20.3%)	
Married/Cohabiting	836 (58.3%)	141 (40.4%)	695 (64.0%)	***
Other	599 (41.7%)	208 (59.6%)	391 (36.0%)	
Income				***
<\$25k	407 (28.7%)	156 (45.2%)	251 (23.4%)	
\$25–75k	790 (55.8%)	160 (46.4%)	630 (58.8%)	
>75k	220 (15.5%)	29 (8.4%)	191 (17.8%)	
Military Rank				
Enlisted	624 (43.6%)	215 (61.8%)	409 (37.7%)	***
NCO ^a	629 (43.9%)	103 (29.6%)	526 (48.5%)	
Officers	180 (12.6%)	30 (8.6%)	150 (13.8%)	

Note. Missing data points for each of these demographic items ranged from N = 4 to N = 13.

^aNon-commissioned officer

p <.001

Table 2

Perceived barriers to treatment among student National Guard Service Members/Veterans with significant mental health symptoms who did not receive treatment

	N (%) Agree or Strongly Agree
I don't want it to appear on my military records	18 (42.9%)
It would be too embarrassing	13 (31.0%)
My visit would not remain confidential	12 (28.6%)
It might harm my career	12 (28.6%)
It is difficult to schedule an appointment	11 (26.8%)
I would be seen as weak	11 (26.2%)
Mental health care costs too much money	9 (21.4%)
My unit leadership might treat me differently	8 (19.5%)
I don't trust mental health professionals	7 (16.7%)
Mental health care doesn't work	7 (16.7%)
There would be difficulty getting time off work for treatment	7 (16.7%)
I don't know where to get help	5 (11.9%)
Members of my unit might have less confidence in me	5 (11.9%)
I would have to drive great distances to receive high quality care	5 (11.9%)
An officer or NCO should not be in a leadership position if he/she is taking medication for a mental health problem	4 (9.5%)
I don't have adequate transportation	3 (7.1%)
My leaders would blame me for the problem	3 (7.1%)
I would think less of a team member if I knew he/she was receiving mental health counseling	2 (4.8%)
There are no providers in my community	1 (2.4%)
My leaders discourage the use of mental health services	1 (2.4%)

Note. One to two data points were missing for each item, therefore for each item percentages are calculated for N = 41 or 42.

Table 3

Mental health symptoms and hazardous drinking rates by student status among National Guard Service Members/Veterans

	Full Sample N=1439 N (%)	Students N=350 N (%)	Nonstudents N=1089 N (%)	Significance
Depressive symptoms	265 (18.6%)	56 (16.1%)	209 (19.4%)	<i>ns</i>
Anxiety symptoms	218 (15.3%)	44 (12.6%)	174 (16.1%)	<i>ns</i>
Hazardous Drinking	698 (49.1%)	180 (52.3%)	518 (48.1%)	<i>ns</i>
PTSD symptoms	206 (14.3%)	43 (12.3%)	163 (15.0%)	<i>ns</i>
Any Mental Health symptoms	346 (24.0%)	81 (23.1%)	265 (24.3%)	<i>ns</i>
SF-12 Physical Mean (SD)	50.6 (9.1)	52.1 (8.8)	50.1 (9.2)	***
SF-12 Mental Mean (SD)	46.4 (11.4)	46.8 (11.1)	46.3 (11.5)	<i>ns</i>

 $p < .001$

Note. Missing data points for the categories range from N = 1 to N = 18.

Table 4

Receipt of mental health treatment during the past year among National Guard Service Members/Veterans with significant mental health symptoms

	Veterans with symptoms N = 346 N (%)	Students N= 81 N (%)	Non-Students N=265 N (%)	Significance
Received mental health treatment in past year				
Yes	187 (54.4%)	38 (46.9%)	149 (56.7%)	<i>ns</i>
No	157 (45.6%)	43 (53.1%)	114 (43.4%)	
Received VA/Vet Center treatment in past year				
Yes	143 (41.3%)	25 (30.9%)	118 (44.5%)	*
No	203 (58.7%)	56 (69.1%)	147 (55.5%)	
Received military facility treatment in past year				
Yes	103 (30.1%)	21 (25.9%)	82 (31.4%)	<i>ns</i>
No	239 (69.9%)	60 (74.1%)	179 (68.6%)	
Received civilian facility treatment in past year				
Yes	95 (27.9%)	20 (24.7%)	75 (28.9%)	<i>ns</i>
No	246 (72.1%)	61 (75.3%)	185 (71.2%)	
Received psychotherapy in past year				
Yes	146 (42.2%)	27 (33.3%)	119 (44.9%)	<i>p</i> =0.065
No	200 (57.8%)	54 (66.7%)	146 (55.1%)	
Received mental health medications in past year				
Yes	107 (30.9%)	18 (22.2%)	89 (33.6%)	<i>p</i> = 0.053
No	239 (69.1%)	63 (77.8%)	176 (66.4%)	

Note. Missing data points for the categories range from N = 2 to N = 5.

*
p<.05