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Behavioral Health Treatment Receipt among a Community Sample of Young Adult Veterans

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Abstract

Young adult veterans are at risk for behavioral health problems such as depression, posttraumatic stress disorder (PTSD), and substance misuse. Despite this, studies of veterans within the Veterans Affairs Healthcare System (VA) indicate that about half of those warranting treatment receive it in any form, with few receiving an adequate dose of care. For this study, the behavioral health screening status and behavioral health usage (including care outside of VA settings) among a community sample of 812 young adult veterans recruited from the Internet is described. Although approximately 70% of the sample screened positive for behavioral health problems, one-fifth to three-fifths of those screening positive reported any mental health or substance use treatment in the past year, with one-third or less receiving a dose of minimally adequate psychotherapy or psychotropic care. Findings expand on prior work and suggest more effort is necessary to engage young veterans in behavioral health services.

Keywords

veteran; treatment; PTSD; substance use; depression; anxiety; behavioral health

Introduction

Operations Enduring Freedom, Iraqi Freedom, and New Dawn (OEF/OIF/OND) involved the deployment of over 2.2 million United States service members to combat arenas in Iraq and Afghanistan. In addition to physical health problems resulting from injuries, occupational hazards, or deployment-related issues (e.g., chronic pain, tinnitus),¹ many of these veterans face behavioral health challenges. Prevalence rates vary by study, with rates among Veterans Affairs Healthcare System (VA) patients and community samples showing that about 13% to 26% of these veterans meet criteria for posttraumatic stress disorder (PTSD) or depression, approximately 5% to 11% meet criteria for substance use disorders (SUDs), and about 6% to 13% meet criteria for anxiety and adjustment disorders.^{2–4} The majority of veterans with one behavioral health diagnosis have at least one other behavioral health diagnosis; for example, approximately two-thirds that meet PTSD criteria also meet criteria for probable depression and veterans suffering with PTSD and/or depressive disorders are at increased risk for SUDs.^{2,5–7} Rates of behavioral health problems are also

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higher in OEF/OIF/OND veterans than in active duty and civilian samples;^{3,8–10} particularly for young adult veterans, who are more likely than young adult civilians to report anxiety and depression,¹¹ and who are at greater risk than older OEF/OIF/OND veterans for heavy drinking.¹²

To meet their physical and behavioral health care needs, OEF/OIF/OND veterans have access to quality private care in the community and most are eligible for behavioral health coverage at the VA, which has demonstrated quality of care comparable or better than care in the private sector.^{13–15} About 80% of young adult veterans are able to receive care at the VA or have private insurance and OEF/OIF/OND veterans are eligible for no cost health care at the VA for five years post-discharge.¹⁶ Also, the Affordable Care Act helps provide uninsured veterans with financial assistance to purchase private care.¹⁷ As of early 2015, there have been approximately 1.9 million OEF/OIF/OND veterans that have separated from the military that are eligible for VA health care and of these, approximately 61% have sought health care (including physical/medical and behavioral health care) at a VA facility since 2002.¹⁸ Among the most common behavioral health problems for OEF/OIF/OND veterans reported in electronic health records are PTSD, depressive disorders, neurotic disorders (e.g., generalized anxiety disorder), alcohol use disorders (AUDs), and other drug use disorders.^{18,19}

Unfortunately, data from the VA and from community samples demonstrate that many OEF/OIF/OND veterans with behavioral health disorders choose not to seek care. In one large community sample of such veterans and service members, only about 53% of respondents with a current need for mental health services to address PTSD and/or depression had visited a doctor or mental health specialist in the previous 12 months.³ Other work with OEF/OIF/OND veterans similarly finds that about half of those who might benefit from behavioral health care have received it.^{19–22} Young adult OEF/OIF/OND veterans appear particularly resistant to seeking care. Indeed, young people in general are less likely to seek behavioral health services,^{23–27} and younger veterans are less likely than older veterans to seek such care at the VA or elsewhere.^{28,29}

Moreover, many OEF/OIF/OND veterans who do seek care often do not receive minimally adequate care, which has typically been defined as a specified number of attended appointments for psychotherapy or medication with a mental health professional within a specified time period, such as within a 12 month period. For example, VA data indicate that only 27% of the 49,425 OEF/OIF/OND veterans seen for PTSD in the VA between 2002 and 2008 received a minimally adequate dose of care³⁰ and less than half of 2,183 female veterans with PTSD who were enrolled at the VA received minimally adequate PTSD care at the VA between 2007 and 2013.³¹ Much of the data on OEF/OIF/OND veterans come from VA patient records or from Department of Defense records from active-duty service members. However, as noted, many separated veterans do not elect to receive benefits from the VA or have only attended appointments outside of behavioral health clinics, and are therefore not captured in these samples. In addition, when self-report data of veterans are collected, veterans are typically recruited for research studies from VA clinics (e.g., through flyers posted in waiting rooms or from providers). Consequently, little is known about the health care needs and utilization within the broader community of veterans recruited outside

the VA. In one community sample using random digit dialing for recruitment, Schell and Marshall³ found that only 30% of the 326 veterans and service members with positive screens for PTSD and/or depression had received a minimally adequate dose of treatment.³ Beyond this study, there are no studies to our knowledge using a community sample of veterans to estimate receipt of minimally adequate care. The current study fills this gap in knowledge by surveying a large sample of separated veterans in the community outside of VA settings (i.e., those not necessarily already enrolled in VA care and those not currently pursuing care) through the use of novel online survey methodology.

The Present Study

The present study was designed to expand on studies that examine utilization of behavioral health care among veterans in the community. The study focused on behavioral health problems that appear to be most prevalent in this population: (1) mental health problems of generalized anxiety disorder (GAD), depression, and PTSD, and (2) substance use problems of hazardous alcohol use and hazardous cannabis use.^{18,19} First, the behavioral health screening status of a community sample of veterans is described using brief, validated self-report screening questionnaires. Second, the behavioral health care usage of the sample is described regarding mental health care (i.e., care for generalized anxiety, depression, PTSD) and substance use care (i.e., care for alcohol use concerns, other non-alcohol substance concerns). Descriptive reports are presented for the percentage of those within the overall sample and by specific behavioral health concern that utilized behavioral health care since discharge from the military and within the past year from the VA, from Vet Centers (VA-affiliated clinics with non-emergency services like individual and family psychological counseling), and from community providers outside the VA. Lastly, self-reported receipt of a minimally adequate dose of psychotherapy or psychotropic medications within the past year is described for the full sample and for those with specific current behavioral health concerns. These findings can help better illuminate the extent to which young veterans with need for behavioral health services are seeking such care, the extent to which this care is adequate, and what efforts are needed to further assist this population with their behavioral health needs.

Methods

Participants

Participants included 812 young adult American veterans recruited as part of a large online study aimed at documenting drinking behavior among a community sample of young adult veterans.³² Eligibility criteria for the larger study were (1) age between 18 and 34 and (2) veteran separated from the U.S. Air Force, Army, Marine Corps, or Navy. Those still affiliated with the military through the reserve components of the U.S. Armed Forces (e.g., Navy Reserve, Army National Guard) were excluded. Of the 2,275 individuals who accessed the online survey page through advertisements on the social media website Facebook, 779 provided no data, 200 provided responses that made it unclear if they met eligibility (e.g., inconsistent reports of branch and rank), 216 were screened out due to clear ineligibility (e.g., age over 34, on active duty), and 57 declined to give consent and were screened out before entering the survey. Thus, 1,023 completed enough survey items to verify eligibility

criteria and check for misrepresentation of responses. Of these participants, 812 provided complete data for variables targeted for analyses in this study.

Procedures

Participants responded to advertisements displayed on Facebook. The website has been used successfully to recruit young adults and veterans for health-related research studies.³³

Advertisements targeted young adult veterans for a survey of “veteran attitudes and behaviors,” and thus did not mention behavioral health care symptoms or care receipt. Ads mentioned the OEF/OIF/OND conflicts but veterans did not need to have combat experience to participate. After clicking on advertisements, participants were directed to a secure website where they read and electronically signed a consent form. They then completed measures described below and for which they were given a \$20 Amazon gift card.

All procedures were approved by the local Institutional Review Board. More information about the Facebook recruitment procedures and representativeness of the sample is detailed in other work.³⁴ In brief, procedures were implemented to prevent non-veteran individuals from completing the survey to obtain the incentive. For example, targeted Facebook advertisements only displayed ads to individuals likely to meet eligibility criteria (e.g., Facebook users between 18 and 34 who “liked” veteran service organizations such as the Iraq and Afghanistan Veterans of America) and each Facebook account could be used only once to submit a survey. Participants also needed to indicate that they were a U.S. veteran from one of the four included branches and they needed to report consistent responses across military characteristic items, such as branch, rank, and pay grade. These procedures have been used successfully in the past to reduce misrepresentation among veterans recruited from the Internet.³⁵

Measures

Participants completed items regarding demographics (age, gender, race/ethnicity, marital status, income, education level, veteran status, prior branch of service, combat experience), screening measures of behavioral health symptoms, and measures of receipt of treatment services.

Behavioral health symptoms—Current symptoms of mental health problems (generalized anxiety, depression, PTSD) and substance use problems (hazardous alcohol use, hazardous cannabis use) were assessed with validated screening measures used in young adult and veteran samples and recommended in the VA/Department of Defense Clinical Practice Guidelines for screening in primary care.³⁶ Symptoms of GAD were assessed with the GAD-7,³⁷ which assesses the extent to which respondents had been bothered by seven symptoms with respect to the past two weeks. Response options range from 0 = “not at all” to 3 “nearly every day.” A GAD-7 score of 10 indicates moderate/severe symptoms, and is regarded as the optimal cutpoint for probable GAD. The Patient Health Questionnaire - 2 item (PHQ-2)³⁸ is a 2-item screener for depression over the past two weeks. Response options range from 0 = “not at all” to 3 “nearly every day.” A score of 2 or higher is indicated of a probable depression diagnosis. The Primary Care PTSD Scale, a four-item screener, was used to screen for PTSD symptoms in the past month (PC-PTSD³⁹). A PC-

PTSD score of 3 or higher indicates a probable PTSD diagnosis. The Alcohol Use Disorder Identification Test (AUDIT⁴⁰) is a 10-item measure used to assess past year symptoms of an AUD. The measure assessed past year quantity/frequency or alcohol consumption and frequency of problems related to alcohol use. A score of 8 indicates a positive screen for hazardous alcohol use. Lastly, the Cannabis Use Disorder Identification Test-Revised (CUDIT-R⁴¹) is an eight-item measure used to assess for past six-month symptoms of a cannabis use disorder (CUD); including frequency of cannabis use and of problems. A score of 8 indicates a positive screen for hazardous cannabis use.

Treatment services receipt—Participants were asked a series of questions about two types of care areas of (1) “a mental health concern (for example, help with stress, anxiety, depression, nightmares)” and (2) “an alcohol use concern (for example, help with drinking less, attending groups to stay abstinent from alcohol) or other substance use concern (for example, help reducing cigarette use, attending groups to stay abstinent from marijuana or other drugs).” It was specified that appointments should be considered separate from those possibly received as part of compensation and pension evaluations (e.g., appointments where veterans are assessed by a licensed provider to determine if they are eligible for service-connected disability compensation). Participants were first asked if they had ever, since discharge from the military, attended an appointment at each of the following: a VA facility (including VA hospitals or VA community-based outpatient clinics but excluding Vet Centers), a Vet Center, and/or a non-VA or non-Vet Center clinic, hospital, or doctor’s office (community provider) for each of the two problem areas separately (mental health problems, substance use problems). For each problem area where participants indicated attending at least one appointment at any of the treatment sites (i.e., VA, Vet Center, community provider), they were asked when their last appointment was for each indicated concern and at each site, ranging from over a year ago to within the past month. Responses were recoded into two responses reflecting whether or not the last appointment was received within the past 12 months. Persons who reported receiving care in the past 12 months were asked to indicate the total number of appointments in this period as well as the average length of each session. Participants were then asked if they had been prescribed any medication for a mental health or emotional problem in the past 12 months and, if so, whether or not they took the medication for as long as the prescriber wanted.⁴²

Data Analytic Plan

Post-stratification weights—To improve the representativeness of the analytic sample, post-stratification weights were applied relative to the target population of young adult veterans as specified in the U.S. Census’ American Community Survey (ACS) and from Department of Defense data.⁴³ This method is described in detail in other work.³⁴ In brief, the sample was weighted on race/ethnicity and branch of service, as the recruited sample underrepresented Black/African American veterans and those from the Air Force and Navy, while overrepresenting Hispanic/Latino(a) veterans and those from the Army and Marine Corps. Table 1 contains the demographics and confidence intervals for the weighted sample, as well as the raw data. The table also contains the percentage of the sample that reported use of services for any reason (including physical/medical health service usage and service and compensation review) at a VA, Vet Center, and community provider since separating

from the military. The majority of participants reported use of services at any of the care sites for any reason since discharge (81.5%), with the VA reported at the highest utilization rate. Beyond the figures included in the table, among those who reported any service use since discharge, 74.7% reported use of both VA and non-VA services since discharge, with 11.5% reporting sole use of VA and 13.8% reported sole use of non-VA (Vet Center, community providers) services. Note that in all tables and in the figure, percentages are indicated rather than Ns because Ns of the weighted sample would be arbitrary.

Data analyses—Analyses consisted primarily of descriptive reports of behavioral health problems and treatment utilization, as well as rates of minimally adequate care as defined in prior work.^{3,42} For psychotherapy, minimally adequate care was conceptualized as (1) attending at least eight appointments with a mental health professional in the past 12 months for a mental health or substance use concern, with (2) visits averaging at least 30 minutes. For psychotropic medications, minimally adequate care was conceptualized as (1) attending at least four appointments in the past 12 months with a doctor or mental health professional for a mental health or substance use concern and (2) taking a medication prescribed by this doctor or mental health professional for as long as the provider wanted the patient to take it.

Results

Behavioral Health Problems

Overall 69.5% of the sample screened positive for at least one behavioral health problem. For the entire sample, 60.3% screened positive for at least one of the mental health problems (44.0% GAD, 37.3% depression, 48.3% PTSD), while 36.6% screened positive for at least one of the substance use problems (33.6% hazardous alcohol use, 9.6% hazardous cannabis use). Substantial comorbidity was observed, as shown in Table 2. For example, 74.9% of those who screened positive for at least one of the substance use problems (i.e., hazardous alcohol use, hazardous cannabis use, or both) also screened positive for at least one mental health problem (GAD, depression, PTSD), while 45.5% of those who screened positive for at least one of the mental health problems also screened positive for at least one substance use problem. Most of the participants screening positive for any of the mental health problems screened positive for at least one other mental health problem (71.4%). About one quarter of the whole sample screened positive for all three mental health problems (26.3%), with nearly half of those screening positive for any of the three mental health problems also screening positive for the other two (43.6%). In the whole sample, 6.6% screened positive for both hazardous alcohol use and hazardous cannabis use, with 18.0% of participants screening positive for one of the substance use problems screening positive for the other.

Use of Behavioral Health Treatment Services

Overall, 36.8% of the sample reported use of mental health services at any of the care sites in the past year, with the percentage using services varying by care site: VA (31.3%), Vet Centers (16.2%), or community providers (13.7%). Figure 1 details the percentage of the sample that screened positive for at least one of the three mental health problems (GAD, depression, PTSD) that received care at any site in the past year (52.4%), followed by the specific care sites used by these participants in the past year. The largest percentage of

participants reported use of mental health services at the VA (45.1%), with 24.3% at a Vet Center and 18.8% from a community provider. Detailed in the figure is the percentage of care-using participants that used any of these care sites alone or in combination with others, revealing that the most common sole site was VA (36.9%) and the most common combination of sites was VA and Vet Centers (25.0%).

For substance use problems (hazardous alcohol use, hazardous cannabis use), 9.1% of the overall sample reported use of substance use services at any of the care sites in the past year, with the percentage using services varying by care site: VA (7.0%), Vet Center (4.3%), or community provider (4.5%). Figure 1 details the percentage of the sample that screened positive for at least one of the two substance use problems that received care at any site in the past year (19.2%), followed by the specific care sites used by these participants in the past year. Similar percentages of participants reported use of substance use services at the VA (14.1%), at Vet Centers (10.0%), and from community providers (10.5%). Detailed in the table is the percentage of participants that used any of these care sites alone or in combination with others, revealing that the most common sole site was the VA (28.7%) and the most common combination of sites was use of all three: VA, Vet Centers, and community providers (38.9%).

Table 3 details the weighted percentage of the full sample and the sample by specific behavioral health problem that received any mental health care and substance use care since discharge and in the past year. The majority of participants screening positive for mental health problems reported attending at least one mental health care appointment since discharge (79.1% for GAD, 78.1% for depression, 76.3% for PTSD), while upwards of one-half of those screening positive for substance use problems reported attending at least one substance use care appointment since discharge (40.4% for hazardous alcohol use, 51.9% for hazardous cannabis use). Nearly three-fifths of those screening for each of mental health problems reported receipt of mental health care in the past year (59.2% for GAD, 57.1% for depression, 56.8% for PTSD), while 20.7% and 34.2% of those screening positive for hazardous alcohol use or cannabis use, respectively, reported receipt of any substance use care in the past year.

Minimally Adequate Treatment

Table 3 also details the weighted percentage of the sample that received minimally adequate psychotherapy, psychotropic, and either psychotherapy or psychotropic care in the past 12 months for the full sample and among those screening positive for each of the behavioral health problems. Overall, 16.8% of the sample reported receipt of a dose of any minimally adequate psychotherapy or psychotropic care in the past 12 months. These rates varied by behavioral health problem, with those screening positive for depression most likely to report receipt of any minimally adequate care (34.4%) and those screening positive for hazardous alcohol use least likely to report receipt of any minimally adequate care (21.3%). Rates also varied by type of care received (i.e., psychotherapy or psychotropic) and in all instances the percentage of those receiving minimally adequate psychotropic care exceeded the percentage of those receiving minimally adequate psychotherapy care. For example, among

those screening positive for PTSD, 17.2% reported receipt of minimally adequate psychotherapy, while 23.9% reported receipt of minimally adequate psychotropic care.

Discussion

In the present study, a community sample of young veterans was recruited from the Internet to examine positive screening rates of behavioral health problems, usage of behavioral health care, and self-reported receipt of a minimally adequate dose of care. Approximately 70% reported positive screens for current behavioral health problems like GAD, depression, PTSD, hazardous alcohol use, and/or hazardous cannabis use. Comorbidity of positive screens for behavioral health problems was the norm rather than the exception. Approximately three-quarters of those screening positive for GAD, depression, or PTSD reported any mental health care since discharge and upwards of three-fifths of those with current positive mental health screenings reported use of mental health care in the past year. About 40% of the veterans screening positive for hazardous alcohol use and 52% of those screening positive for hazardous cannabis use reported receiving substance use care since discharge, while about one-fifth and one-third of those screening positive for alcohol use or cannabis use problems, respectively, reported receipt of past year substance use care. Although an encouraging percentage of those with behavioral health problems reported any use of behavioral health services since discharge and in the past year, about one-third or less of those screening positive for each of the behavioral health problems reported receipt of minimally adequate care in the past year. Roughly, about one-third of veterans screening positive for GAD, depression, PTSD, or hazardous cannabis use, and about one-fifth of those screening positive for hazardous alcohol use, reported receipt of minimally adequate care in the past year. Combined with findings from other studies of OEF/OIF/OND veterans,^{3-5,11,12,44,45} it is clear that young adult veterans are at risk for behavioral health problems, yet the minority of these veterans with such problems receive adequate care.

Most studies examining minimally adequate care receipt by veterans examine data from VA medical records, include samples of VA patients only, or only look at use of VA services.^{30,31,46,47} A strength of the current study is the reliance on the Internet for recruitment and survey assessment, which allows for a broader view of behavioral health problems among veterans both enrolled in the VA and not, as well as allowing for inclusion of those not willing to attend in-person assessments. As approximately 30% of the sample had never used a VA for any reason since discharge, the inclusion of care receipt at other settings (Vet Centers, community providers) is another strength as findings include receipt of care beyond that received solely from the VA. Considering the current study in the context of prior studies, the current sample reported higher rates of minimally adequate care than another large community sample of OEF/OIF/OND veterans;³ however, more than half of this former sample was composed of active duty or reserves/guardsmen. In the present sample of young adult veterans, generally lower rates of minimally adequate care were observed compared to a large sample from the general population,⁴² though the studies are not directly comparable due to differences in age, sampling strategies, and measures used.

An interesting finding from this study also centers on the descriptive analyses of veterans screening positive for particular behavioral health problems. For example, only

approximately 25% of veterans that screened positive for hazardous alcohol use or hazardous cannabis use screened negative for any of the three assessed mental health problems, and about 45% of those screening positive for a mental health problem also screened for one of the two substance use problems assessed. Prior work with VA samples and the general population has also shown there is a high degree of overlap between mental health and substance use problems.^{5,9,12,48} This study suggests this is a concern not just among clinical samples involved or enrolled in care at the VA, but also among young veterans in the community. Given that not all veterans with behavioral health problems use VA care, it is essential for mental health clinics within and outside the VA to be equipped to handle the comorbid behavioral health needs of young veterans.¹³

Another important finding from this study is the reported behavioral health care usage outside the VA. In particular, 60% of the sample had ever visited a community provider for any reason since discharge. Nearly 10% of those who reported past year mental health care receipt utilized community providers only, while 15% of those reporting care receipt for substance use problems utilized community providers only. Although the VA has demonstrated quality of behavioral health care for veterans, including use of empirically-based interventions,^{13–15} the drawdown of troops and the formal removal of most service members participating in OIF has led to a large increase in the number of veterans eligible for care at the VA. Community providers may be an adequate alternative to reduce long wait times for behavioral health appointments at the VA, which averaged over one-month for most of 2014⁴⁹ and have received negative attention by recent research and media reports.^{50,51} Much is to be learned about how community providers can fulfill the needs of veterans, including the quality of care provided and level of military cultural competency of these providers outside the VA,⁵² and the role that such providers can play in the effort to treat veteran behavioral health problems deserves more focused research attention.

Little work similarly has looked at how Vet Centers can be used to augment or substitute VA behavioral health care. The current study finds that nearly one-quarter of those veterans screening positive for mental health problems reported use of Vet Centers for their mental health concerns in the past year, and 10% of those screening positive for substance use problems reported use of Vet Centers for their substance use concerns in the past year. While few veterans in this study solely used Vet Centers, there is promise for Vet Centers to attract young veterans that may desire treatment options outside the VA. Although Vet Centers may have fewer resources than large VA clinics, several aspects of Vet Centers may be attractive to young veterans, such as a medical record system independent from that of the VA, multiple staff composed of veterans themselves, and more options for family involvement and counseling.

Implications for Behavioral Health

This study confirms what other studies of primarily clinical samples have found since the beginning of the wars in Iraq and Afghanistan: OEF/OIF/OND veterans are struggling with behavioral health concerns but are not receiving adequate care to address these concerns. The study expands on prior work by looking at the behavioral health screening status of a non-clinical sample (i.e., a sample recruited outside the VA for an Internet survey of

“veteran attitudes and behaviors”) and included receipt of care at facilities outside the VA (i.e., Vet Centers and community providers). Due to the nature of online data collection, data collection relied on brief, self-report screening measures of behavioral health problems and not on diagnostic measures, clinician interviews, or chart reviews. Those screening positive for problems may not necessitate treatment. A single visit to a specialty behavioral health clinic could be sufficient to determine that symptoms are not clinically significant and/or can be managed through other means (e.g., self-help groups) rather than through a full dose of psychotherapy or psychotropic care. Yet, the symptoms assessed by the brief, validated screening instruments indicated that veterans in this sample were experiencing *current* symptoms of behavioral health problems and arguably then these individuals could likely benefit from some form of treatment. Furthermore, the majority of those with current positive screens for behavioral health problems in the sample reported at least one appointment for behavioral health care since discharge, suggesting that the problems were severe enough to warrant at least one visit to a mental health professional. Therefore, findings suggest a disparity between those with current behavioral health problems that receive at least one appointment for a mental health or substance use concern and those that end up reporting receipt of minimally adequate care. This represents missed opportunities to enroll and engage those attending appointments after discharge into longer-term adequate care. Retention in behavioral health care is recognized as a significant problem in the VA.^{13,53–58} and this study is consistent with this research; indicating that the problem may extend to veterans receiving care outside the VA as well.

Limitations

Limitations regarding the screening measures used should be noted. First, information on use of other drugs beyond alcohol and cannabis (e.g., cocaine, opioids) was not collected. As mentioned, diagnostic measures were not utilized and screening measures alone may not fully capture who may possibly best benefit from care. However, veterans still report symptoms of anxiety, depression, and problem substance use that do not quite meet diagnostic criteria as distressing and these subclinical symptoms can be successfully targeted in treatments.^{59–61} Also, using screening measures can capture a group for whom it may be essential to promote care receipt, as early detection and treatment can be essential in preventing chronic problems.^{62,63}

Limitations regarding how substance use and care receipt was assessed should also be noted. First, participants were asked to report details of their care appointment (e.g., how long they were on average, how many they had in a 12 month period) and memory effects may have led to inaccurate reports of care receipt. Participants were also asked to consider treatment for alcohol and substance use concerns that could have included care for substances beyond the two drugs assessed (i.e., alcohol and marijuana). For example, participants could have indicated they received smoking cessation treatment to help reduce cigarette use while also screening negative for an AUD or CUD. In addition, participants were not specifically asked to consider self-help care for hazardous substance use, such as attendance at Alcoholics Anonymous or SMART Recovery groups, which can serve as an adjunct or stand-alone treatment to more formal psychotherapy or psychotropic medication care. In a previous study of minimally adequate care, Wang and colleagues⁴² included these forms of substance

use care in their definition of psychotherapy appointments, which may partially account for the current observed lower rates of substance use care compared to their study. In addition, there are currently no medications indicated as effective for CUD, although studies are underway to test the effectiveness of certain prescribed drugs.⁶⁴ Still, participants with CUD indicated receiving medication in appointments focused on substance use care and it is unclear if this medication was for CUD specifically, or if the medication was for another substance used (e.g., alcohol, cocaine). Lastly, the minimally adequate care definition is a standard used in the research on service usage, yet it is nonetheless a crude measure. It does not indicate the quality of care received and where the minimally adequate care was received (e.g., from the VA exclusively, from multiple care sites), nor does it allow for examination of the type of care received; for example, whether minimally adequate care among those screening positive for PTSD included one of the empirically-supported treatments adopted by the VA.^{65–67} More research is needed with community samples of veterans to indicate the extent of completed, high-quality empirically-based care within differential clinical settings.

Conclusion

The present findings with a large, weighted sample of young adult veterans suggest that a substantial number screen positive for behavioral health concerns such as generalized anxiety disorder, depression, PTSD, hazardous alcohol use, and hazardous cannabis use, with a large degree of overlap between conditions. However, as also indicated by prior research, few veterans reported receipt of minimally adequate care, which indicates high need for services in young veterans and raises questions about how best to reach this group. Further efforts by the VA and community organizations and providers are needed to engage young veterans in the services available to them.

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Figure 1.
Past year care receipt by site among those with positive screens for behavioral health problems

Table 1

Demographic characteristics of the weighted sample

	Raw data	Weighted mean/percentage	95% Confidence Interval	
Variable			Lower	Upper
Age (<i>mean, SD</i>)	28.26 (3.39)	28.42 (3.48)	28.18	28.66
Sex				
Male	87.4%	85.3%	82.8%	87.8%
Race/ethnicity				
White	69.8%	68.9%	65.7%	72.1%
Hispanic/Latino(a)	19.4%	11.3%	9.1%	13.5%
Black or African American	3.2%	12.4%	10.1%	14.7%
Other	7.6%	7.3%	5.5%	9.1%
Former branch of service				
Air Force	6.7%	15.1%	12.6%	17.6%
Army	60.6%	42.3%	38.8%	45.8%
Marine Corps	24.3%	18.5%	15.8%	21.2%
Navy	8.5%	24.1%	21.1%	27.1%
Marital status				
Married	54.0%	52.0%	48.5%	55.5%
Education				
At least some college or more	75.2%	77.9%	75.0%	80.8%
Annual household income				
\$25,000 or more	61.8%	63.0%	59.6%	66.4%
Number of deployments				
None	12.6%	14.0%	11.6%	16.4%
One	41.2%	35.1%	31.8%	38.4%
Two	29.5%	29.7%	26.5%	32.9%
Three or more	16.7%	21.2%	18.3%	24.1%
Any combat experience (<i>among those deployed</i>)				
Yes	90.1%	85.9%	83.5%	88.3%
Service use for any reason since discharge ^I				
Use of any services	83.9%	81.5%	78.8%	84.2%
Use of VA	73.9%	70.2%	67.0%	73.4%
Use of Vet Center	49.9%	47.9%	44.4%	51.4%
Use of community provider	59.4%	59.9%	56.5%	63.3%

^I Any reason included behavioral health care appointments and those appointments for physical/medical health care and service and compensation review

Percentage of participants in the weighted sample screening negative and positive for each of the behavioral health problems

Table 2

	Substance use Problems				Total of sample
	Screened negative for hazardous alcohol and cannabis use	Screened positive for hazardous alcohol use only	Screened positive for hazardous cannabis use only	Screened positive for hazardous alcohol use and cannabis use	
Mental Health Problems					
Screened negative for GAD, depression, and PTSD	30.5%	7.1%	0.4%	1.7%	39.7%
Screened positive for GAD only	1.9%	0.6%	0.0%	0.2%	2.7%
Screened positive for depression only	1.4%	0.2%	0.0%	0.1%	1.7%
Screened positive for PTSD only	8.4%	3.1%	0.7%	0.5%	12.8%
Screened positive for GAD and depression	3.6%	2.9%	0.1%	1.0%	7.6%
Screened positive for GAD and PTSD	4.3%	2.7%	0.1%	0.2%	7.4%
Screened positive for depression and PTSD	0.9%	0.6%	0.1%	0.1%	1.7%
Screened positive for GAD, depression, and PTSD	12.4%	9.8%	1.5%	2.6%	26.3%
Total of sample	63.4%	27.0%	3.0%	6.6%	

Table 3

Behavioral health care receipt since discharge, care in the past year, and minimally adequate psychotherapy or psychotropic care in the past year in the full sample and among those with positive screens for behavioral health problems

		Percent of Those with Specific Behavioral Health Concerns				
Type of Behavioral Health Care	Full Sample	Positive GAD Screen	Positive Depression Screen	Positive PTSD Screen	Positive Hazardous Alcohol Use Screen	Positive Hazardous Cannabis Use Screen
Mental Health Care						
Ever attended appointment for mental health concern since discharge	52.0 %	79.1 %	78.1 %	76.3 %	62.5 %	67.9 %
Attended appointment for mental health concern past 12 months	36.8 %	59.2 %	57.1 %	56.8 %	48.4 %	52.6 %
Any minimally adequate mental health care past 12 months	16.4 %	30.4 %	33.8 %	28.0 %	19.9 %	29.1 %
Minimally adequate mental health psychotherapy treatment past 12 months	10.5 %	18.7 %	21.5 %	17.2 %	12.7 %	12.7 %
Minimally adequate mental health psychotropic treatment past 12 months	13.7 %	25.7 %	28.6 %	23.9 %	16.6 %	29.1 %
Alcohol and Other Substance Use Care						
Ever attended appointment for substance use concern since discharge	21.4 %	34.9 %	32.2 %	33.9 %	40.4 %	51.9 %
Attended appointment for substance use concern past 12 months	9.1 %	14.6 %	15.9 %	14.7 %	20.7 %	34.2 %
Any minimally adequate substance use care past 12 months	2.6 %	5.6 %	6.3 %	5.1 %	6.5 %	13.9 %
Minimally adequate substance use psychotherapy treatment past 12 months	1.3 %	2.8 %	3.3 %	2.6 %	3.2 %	3.8 %
Minimally adequate substance use	2.0 %	4.2 %	5.0 %	3.9 %	5.4 %	11.4 %

		Percent of Those with Specific Behavioral Health Concerns				
Type of Behavioral Health Care	Full Sample	Positive GAD Screen	Positive Depression Screen	Positive PTSD Screen	Positive Hazardous Alcohol Use Screen	Positive Hazardous Cannabis Use Screen
psychotropic treatment past 12 months						
Any minimally adequate care past 12 months ^f	16.8 %	31.0%	34.4%	28.5%	21.3%	31.6%

f Any minimally adequate care includes minimally adequate psychotherapy or psychotropic care for mental health or substance use problems