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Prevalence of probable mental disorders and help-seeking behaviors among veteran and non-veteran community college students☆,☆☆,★

John C. Fortney, Ph.D. [a,b,*], Geoffrey M. Curran, Ph.D. [c,d,e], Justin B. Hunt, M.D. [e,f], Ann M. Cheney, Ph.D. [g], Liya Lu, M.S. [e], Marcia Valenstein, M.D. [h,i], Daniel Eisenberg, Ph.D. [j]

[a] Department of Psychiatry, School of Medicine, University of Washington, Seattle, WA 98195, USA
[b] Health Services Research and Development, Center of Innovation for Veteran-Centered and Value-Driven Care, VA Puget Sound Health Care System, Seattle, WA 98108, USA
[c] Department of Pharmacy Practice, College of Pharmacy, University of Arkansas for Medical Sciences, Little Rock, AR 72205, USA
[d] Health Services Research and Development, Center for Mental Healthcare and Outcomes Research, Central Arkansas Veterans Healthcare System, North Little Rock, AR 72114, USA
[e] Department of Psychiatry, College of Medicine, University of Arkansas for Medical Sciences, Little Rock, AR 72205, USA
[f] Veterans Health Care System of the Ozarks, Fayetteville, AR 72703, USA
[g] Department of Psychiatry, University of California, Riverside, Riverside, CA 92521, USA
[h] Department of Psychiatry, Medical School, University of Michigan, Ann Arbor, MI 48109, USA
[i] Health Services Research and Development, Center for Clinical Management Research, VA Ann Arbor Healthcare System, Ann Arbor, MI 48105, USA
[j] Health Management and Policy, School of Public Health, University of Michigan, Ann Arbor, MI 48109, USA

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ABSTRACT

Objective: Millions of disadvantaged youth and returning veterans are enrolled in community colleges. Our objective was to determine the prevalence of mental disorders and help-seeking behaviors among community college students.
Methods: Veterans (n=211) and non-veterans (n=554) were recruited from 11 community colleges and administered screeners for depression (PHQ-9), generalized anxiety (GAD-7), posttraumatic stress disorder (PC-PTSD), non-lethal self-injury, suicide ideation and suicide intent. The survey also asked about the perceived need for, barriers to and utilization of services. Regression analysis was used to compare prevalence between non-veterans and veterans adjusting for non-modifiable factors (age, gender and race/ethnicity).
Results: A large proportion of student veterans and non-veterans screened positive and unadjusted bivariate comparisons indicated that student veterans had a significantly higher prevalence of positive depression screens (33.1% versus 19.5%, P<.01), positive PTSD screens (25.7% versus 12.6%, P<.01) and suicide ideation (19.2% versus 10.6%, P=.01). Adjusting for age, gender and race/ethnicity, veterans were significantly more likely than non-veterans to screen positive for depression (OR=2.10, P=.01) and suicide ideation (OR=2.31, P=.03). Student veterans had significantly higher odds of perceiving a need for treatment than non-veterans (OR=1.93, P=.02) but were more likely to perceive stigma (beta=0.28, P=.02). Despite greater need among veterans, there were no significant differences between veterans and non-veterans in use of psychotropic medications, although veterans were more likely to receive psychotherapy (OR=2.35, P=.046).
Conclusions: Findings highlight the substantial gap between the prevalence of probable mental health disorders and treatment seeking among community college students. Interventions are needed to link community college students to services, especially for student veterans.

1. Introduction

The onset of mental illness typically occurs before age 24 years [1] and these disorders account for about half of the overall burden of illness for adolescents and young adults [2]. Early detection and treatment is critical because, if left untreated, mental illness has significant negative consequences for academic achievement [3], employment [4], substance misuse [5] and social relationships [6]. The college years in particular represent a developmentally challenging transition period to adulthood. Sixty-eight percent of high school graduates attend college [7] and, like their same-aged non-students peers, about a third

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* Corresponding author. Department of Psychiatry, School of Medicine, University of Washington, Seattle, WA 98195, USA.
E-mail addresses: fortneyj@uw.edu, john.fortney@va.gov (J.C. Fortney).

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of college students meet diagnostic criteria for a psychiatric disorder [8]. However, only about a third of college students with a mood disorder report taking psychotropic medications or going to counseling in the previous year [8,9]. Therefore, campus-wide efforts to engage college students in mental health treatment may be warranted.

In recent years, the growing number of two-year community colleges has given disadvantaged students increased access to postsecondary education. In fact, nearly half (42%) of all college students are enrolled in two-year community colleges [7]. In 2014, there were 1132 two-year community colleges with 12.8 million enrolled students [10]. Community colleges, also called junior colleges or technical colleges, are two-year institutions that grant certificates and associate's degrees. Community colleges enroll mostly students from the local community and are primarily funded by state and local governments. The vast majority (88%) of two-year community colleges have open enrollment policies [7]. The average age of community college students is 28 years, 49% are racial and/or ethnic minorities and 60% are part-time students. Annual household incomes are substantially lower among two-year college students compared to four-year college students [11]. In addition, two-year college students have substantially lower high school grade point averages and college admission test scores (e.g., SAT, ACT) than four-year college students [11]. Only 16% of two-year community college students receive a degree within three years of enrollment [11]. In addition, community college students are significantly more likely to have experienced traumatic events compared to four-year college students [12]. Because lower socioeconomic status and trauma are risk factors for poor mental health among students [12,13], the prevalence of mental disorders may be higher at community colleges than four-year colleges. However, there has been virtually no research investigating the prevalence of mental disorders and help-seeking behaviors on community college campuses. While college campuses potentially represent an ideal setting to detect and treat mental disorders, most (58%) two-year community colleges lack student health centers [14], and even fewer appear to provide mental health services [15,16].

Another important reason to better understand mental illness on community college campuses is that a substantial number of veterans from Operation Enduring Freedom (OEF), Operation Iraqi Freedom (OIF) and Operation New Dawn (OND) have been entering community colleges on the new Post-9/11 GI Bill. A majority of returning service members successfully reintegrate into family life, educational activities and vocational pursuits [17]. While attaining further postsecondary education is an extremely important reintegration goal for many veterans, it is difficult to make the transition from a highly structured and hierarchical military setting to the less structured and more self-directed campus environment [18]. These student veterans must contend with the traditional pressures of college life while also dealing with the stress of reintegration. Moreover, a substantial percentage of veterans experience mental disorders, but most do not seek treatment because of stigma [17]. Since the Post-9/11 GI Bill was implemented in August 2009, the Department of Veterans Affairs has provided educational benefits to one million veterans and their family members, amounting to over US$30 billion [19]. A third (34.6%) of those using the Post-9/11 GI Bill have enrolled in a community college [20].

To determine the prevalence of probable mental disorders and help-seeking behaviors, we fielded a survey to population-based samples of veterans and non-veterans attending community colleges. We hypothesized that veterans would have a higher prevalence of probable mental disorders than non-veterans. We also compared student veterans and non-veterans with regard to their perceived need for treatment, perceived stigma associated with receiving treatment and perceived effectiveness of treatment. We also compared the utilization of mental health services between student veterans and non-veterans. We hypothesized that student veterans would perceive a greater need for treatment but would also perceive greater stigma and use fewer services.

2. Methods

A total of 11 two-year community colleges were recruited from across the state of Arkansas. The registrar's office of each community college provided us with the list of students enrolled in the 2012 Spring semester, which served as the sampling frame. For purposes of sampling, all students using the Post-9/11 GI Bill were preliminarily classified as veterans. Using a stratified sampling scheme, we sampled 100% of veterans at each community college and randomly sampled 2.8–18.5% of non-veterans from each community college so that the ratio of non-veterans to veterans sampled was 1.7 at each institution. We sampled and recruited a total of 2500 students including 1572 non-veteran students and 928 student veterans. Design/stratification weights were specified as the inverse probability of being sampled.

Sampled students were sent a letter with a US$20 incentive inviting them to complete a survey online followed by up to four email reminders. Written informed consent was obtained online. The study was approved by the University of Arkansas for Medical Sciences Institutional Review Board. Veteran status (as reflected by Post-9/11 GI Bill benefits) was initially determined from the registrar's office and was later confirmed from self-report. The overall survey response rate was 31.3% (30.7% for veterans and 31.6% for non-veterans). Data were collected during the period from January to April 2012.

Poststratification weights were calculated to account for potential non-response bias. Using demographic data (age category, gender, race/ethnicity minority status and veteran status) legally available from the registrar's office under the Family Educational Rights and Privacy Act (http://www.ed.gov/policy/gen/guid/fpco/ferpa/index.html), a logistic regression equation was specified predicting survey response. Women were significant more likely to respond to the survey than men (OR=1.62. OR_{95}=1.35–1.95, $P<.01$). Likewise, older students were more likely to respond to the survey than younger students (OR=1.02, OR_{95}=1.01–1.03, $P<.01$). Importantly, there were no significant differences in response rates between veterans and non-veterans. Poststratification/non-response weights were specified as the inverse predicted probability of responding for each individual. The stratification weight was multiplied by the poststratification weight to generate an overall weight and then standardized by dividing the mean of the overall weights in the sample. Survey respondents self-reported whether they had served in the military and 74 students using the Post-9/11 GI Bill reported not serving in the military (i.e., spouses) and were reclassified as non-veterans. In addition, 17 students not using the Post-9/11 GI Bill reported serving in the military. These respondents were dropped from the sample because their stratification weights were extreme outliers and artificially inflated the sampling variance. The final analytical sample included 765 students (211 veterans and 554 non-veterans). Because all veterans were sampled, the total (stratification×poststratification) weights for student veterans were substantially smaller than for non-veterans (μ=0.12 versus μ=1.34), thus substantially reducing the weighted sample size of student veterans.

Items and instruments used in the Healthy Minds Study [21,22] were used to collect information about sociodemographics, mental health, perceived need, barriers to care and treatment seeking. The prevalence of current probable mental disorders was assessed using validated screening instruments for depression (PHQ-9, cutoff≥10) [23], generalized anxiety disorder (GAD-7, cutoff≥10) [24] and posttraumatic stress disorder (PC-PTSD, cutoff≥3) [25]. Prevalence of non-lethal self-injury (e.g., cutting) in the past month was assessed using an item developed for the Healthy Minds Study [26]. Suicide ideation in the past *two weeks* was assessed with the PHQ-9 [23]. Intent on lethal self-injury in the *past year* was assessed using an item from the National Comorbidity Survey Replication (http://www.hcp.med.harvard.edu/ncs/index.php) [1]. When comparing responses to these two questions about suicide, it is important to realize that the PHQ-9 question primarily identifies passive suicide ideation over a short timeframe while the