



Published in final edited form as:

Community Coll J Res Pract. 2019 ; 43(8): 585–594. doi:10.1080/10668926.2018.1520659.

Identifying Barriers to Mental Health Service Utilization Among Heavy Drinking Community College Students

Jennifer M. Cadigan, Christine M. Lee

Department of Psychiatry and Behavioral Sciences, University of Washington

Abstract

There are limited findings on mental health prevalence and service utilization rates among community college (CC) students. Utilizing a heavy drinking CC sample, the current study examined: 1) prevalence of mental health symptoms, 2) mental health service utilization and perceived unmet service need, and 3) barriers to service utilization. Participants were 142 CC students who were heavy alcohol users (70% female; 59% White) from three public CCs in the Pacific Northwest who were participating in a larger study designed to adapt a brief intervention for high-risk alcohol use. Findings of the current study revealed that 32% of CC students had a positive screen for depression; 25% had a positive screen for anxiety; a total of 28% received mental health services in the past 12 months; a total of 41% reported a perceived unmet need for mental health services at some point in the past 12 months (i.e., needing mental health services but not receiving it). Students with mental health symptoms reported more barriers to receiving services, and were more likely to not receive services due to cost, compared to students without mental health symptoms. There were differences in type of barrier as a function of alcohol use severity, although there was no difference in number of barriers. Campuses may benefit from understanding mental health service utilization barriers their students report and to effectively advertise the services offered. Training of student services personnel staff and faculty in screening for mental health or substance use may be a worthwhile and cost-effective endeavor.

There are roughly 18.6 million undergraduate students in the United States and approximately 8 million (41%) attend a two-year community college (American Association of Community Colleges [AACC], 2013; Knapp, Kelly-Reid, & Ginder, 2012). The majority of these students are young adults, a developmental stage characterized by numerous transitions in relationships, living situations, work status, and identity (Arnett, 2007; Schulenberg & Maggs, 2002). This stage is an acute time for the development of mental health disorders, with 75% of all disorders presenting by age 24 (Kessler et al., 2005). Initial research suggests a greater prevalence of community college (CC) students have mental health conditions compared to four-year students, with half of CC students and one-third of four-year college students screening positive for a mental health condition (Eisenberg, Goldrick-Rab, Lipson, & Broton, 2016; Eisenberg, Hunt, Speer, & Zivin, 2011; Eisenberg, Hunt, & Speer, 2012).

Despite the need for services, many young adults with mental health conditions do not receive services. Among young adults between the ages of 18 and 25 who meet criteria for a mental health disorder, one-third received mental health services within the past year (Substance Abuse and Mental Health Services Administration [SAMHSA], 2014; Wang et al., 2005). Similar percentages of receiving mental health services were found among four-year college students (Eisenberg, Golberstein, & Gollust, 2007; Eisenberg et al., 2011; Sontag-Padilla et al., 2016). Barriers to receiving mental health services among young adults and four-year college students often include perceived stigma, fear of negative effect on career and academic record, not recognizing symptom, preferring to handle the problem on their own, general lack of knowledge about available mental health services, and lack of perceived need (Cadigan, Lee, & Larimer, 2018; Eisenberg et al., 2007; Eisenberg et al., 2011; Eisenberg et al., 2012; Gulliver, Griffiths, & Christensen, 2010). The majority of research on college student mental health focuses on students at four-year institutions, often overlooking CC student mental health needs and barriers to treatment (Katz & Davison, 2014).

CC students are distinct from traditional four-year students, which may impact mental health conditions, service utilization, and barriers to services. Compared to four-year students, CC students are more likely to be older, belong to an ethnic minority group, belong to a lower socioeconomic background, and be employed (AACC, 2013; Grimes & David, 1999; Horn, Nevil, & Griffith, 2006). There are also differences in alcohol use between CC and four-year students, with several studies finding support that four-year students engage in heavier alcohol use than CC students (Cadigan, Dworkin, Ramirez, & Lee, 2018; Patrick, Terry-McElrath, Kloska, & Schulenberg, 2016; Presley, Meilman, & Leichter, 2002; Sheffield, Darkes, Del Boca, & Goldman, 2005). However, many CC students do engage in heavy alcohol consumption, with estimates of past-month binge drinking ranging from 25% to 41%, (Sheffield et al., 2005; Velazquez et al., 2011; Wall, Bailey Shea, & McIntosh, 2012). Further, many CC students report alcohol-related problem related to relationships, school, employment, or the law (Sheffield et al., 2005; Velazquez et al., 2011; Wall et al., 2012). Many young adults with mental health disorders also have an alcohol use disorder, with nearly half (52%) not receiving services for either the mental health or substance use disorder (Grant et al., 2004; SAMHSA, 2014). Young adults with an alcohol use disorder are unlikely to perceive a service need (Wu, Pilowsky, Schlenger, & Hasin, 2007), which may result in a greater number of barriers for accessing mental health services.

There are limited findings on mental health prevalence and service utilization rates among CC students. Katz and Davison (2014) examined mental health resources among a total of 11,386 CC students and 8,920 four-year students. They found four-year students were more likely to receive psychoeducation information on mental health issues (e.g., information on depression/anxiety, eating disorder, sexual assault, sleep, stress reduction) compared to CC students. CC students were also more likely to report severe mental health issues compared with four-year students. The authors noted that while CC students were in greater need of mental health resources, there was an “information deficit” (Katz & Davison, 2014, p. 316) on CC campuses compared to four-year campuses. More recently, Eisenberg et al. (2016) examined 4,312 students from 10 CC and found that half (49%) reported at least one mental health condition in the past 2-weeks. The most common were a positive screen for

depression (36%), anxiety (29%), suicidal ideation in the past year (11%), with 41% of those with mental health conditions receiving mental health services in the past year. Fortney et al. (2016) found veteran CC students had a higher prevalence of mental health disorders than non-veteran CC students. While these findings offer some understanding of the characteristics of CC students, less is known about specific barriers to service utilization and how these barriers differ as a function of mental health and alcohol use.

Current Study

Studies with four-year students have found mental health service utilization is less frequent among those with lower socioeconomic backgrounds and non-White students (Eisenberg et al., 2011; Hunt & Eisenberg; 2010). As these demographic characteristics are more common among CC students (AACC, 2013; Grimes & David, 1999; Horn et al., 2006), it is possible the population of CC students is less likely to engage in service utilization and may have unique barriers for accessing mental health services. Extending the work of Eisenberg et al. (2016) we aimed to further investigate the mental health needs and barriers to service utilization among CC students. Utilizing a heavy drinking CC sample, the current study examined: 1) the prevalence of mental health symptoms, 2) mental health service utilization and perceived unmet service need, and 3) an investigation of barriers to service utilization. We specifically examined how type of barriers and number of barriers endorsed differed between those with acute mental health symptoms and those without (based on clinical cut-offs for depression and/or anxiety) and between those with acute alcohol use severity and those without (based on clinical cut-offs for hazardous drinking and related-problems).

Method

Participants and Procedures

Participants were 142 CC students from three public CCs in the Pacific Northwest. The average age of students was 22.75 ($SD = 3.34$) and 69.7% were female. A total of 58.9% were White, 12.8% Asian, 5.7% Black, 14.9% Multiracial, and 2.8% American Indian/Alaskan Native, 2.8% Native Hawaiian/Pacific Islander, and 2.1% other. To be eligible for both the larger study (described below) and for the current study, students needed to be between 18-29 years old, enrolled full- or part-time at one of the three CCs, and engage in heavy drinking as defined by consuming 4+/5+ drinks for women/men in a drinking occasion or exceeding weekly National Institution on Alcohol Abuse and Alcoholism drinking recommendations (8+/15+ drinks for women/men), and own/use a cell phone with text messaging capacity.

Participants were part of a larger study designed to adapt a brief intervention for high-risk alcohol use with CC students and to examine the feasibility of conducting the intervention via web-conferencing and incorporating month long text messages around protective behavioral strategies. Recruitment for this small developmental/pilot study included working with three local community colleges and hanging posters and placing handouts around campuses, placing ads in CC newspapers, and sending out email invitations to participate in a brief online screening survey. Interested students were encouraged to log on to our study website and complete a brief eligibility survey after being presented with information

statement describing the screening process; those completing the survey were entered into a drawing for \$250.

Students who met online eligibility ($N=157$) were immediately invited to complete a 30-45 minute baseline survey assessed alcohol use and consequences, as well as other psychosocial measures. Of those invited, 90% ($N=142$) completed the baseline survey and were randomized to one of two conditions, intervention or control. Data for the present manuscript utilizes information collected in the baseline survey. Students were compensated \$30 for baseline but could be eligible for up to \$85 for completion of follow-up assessments.

Measures

Alcohol use was assessed with the Alcohol Use Disorders Identification Test (AUDIT; Babor, Higgins-Biddle, Saunders, & Monteiro, 2001), a 10-item self-report measure used to assess alcohol consumption and alcohol-related problems, with total scores ranging from 0 to 40. Items assess quantity and frequency of alcohol use and consequences of alcohol use (e.g., unable to remember what happened because of drinking, felt guilt or remorse after drinking, been injured or injured someone else because of drinking, failed to do what was expected because of drinking). Using a standard cutpoint to indicate alcohol risk (Babor et al., 2001), scores ≥ 8 were used to indicate hazardous and harmful alcohol use. An additional cutpoint of scores ≥ 16 was used to indicate higher levels of alcohol use severity. The internal consistency estimate in the current study was .76.

Depressive symptoms were assessed using the Patient Health Questionnaire (PHQ-8; Kroenke et al., 2009). Participants were presented with eight symptoms of depression and instructed to indicate "Over the last month, how often have you been bothered by any of the following problems?" on a scale from "0-Not at all", "1-Severely less than half the days", "2-More than half the days", to "3-Nearly every day". Total scores range from 0-24. The established clinical cutpoint of scores ≥ 10 was used to detect depression symptoms (Kroenke et al., 2009). PHQ-8 scores ≥ 10 have an 88% sensitivity and 88% specificity for major depression (Kroenke & Spitzer, 2002). The internal consistency estimate in the current study was .89.

Anxiety symptoms were assessed using the Generalized Anxiety Disorder-7 (GAD-7; Spitzer, Kroenke, Williams, & Löwe, 2006). Participants were presented with various problems related to anxiety and asked to indicate "Over the last month, how often have you been bothered by any of the following problems?" on a scale from "0-Not at all", "1-Severely less than half the days", "2-More than half the days", to "3-Nearly every day". Total scores range from 0-21. The clinical cutpoint of scores ≥ 10 was used to detect anxiety symptoms (Kroenke et al., 2007). GAD-7 scores ≥ 10 have a sensitivity of 89% and a specificity of 82% for detecting Generalized Anxiety Disorder (Kroenke et al., 2007). The internal consistency estimate in the current study was .94.

Mental health service utilization was assessed with the item "During the past 12 months, have you received counseling or outpatient treatment for any problem you were having with your emotions, nerves, or mental health? Please do not include counseling for alcohol or drug use" (responses were "yes" or "no") and perceived unmet service need was assessed with the item "During the past 12 months was there any time when you needed mental

health treatment or counseling for yourself but did not get it?”(responses were “yes” or “no”) (SAMHSA, 2014). Students who responded “yes” to needing mental health services but not receiving it were then asked “Which of these statements explain why you did not get the mental health treatment or counseling you needed?” and asked to check all that apply from a list of 15 items (see Table 2 for list of items, SAMHSA, 2014).

Analytic Procedure

Chi-square tests were used to examine differences in barriers to mental health services as a function of mental health symptoms and alcohol severity status. *T*-tests were used to examine differences in number of barriers endorsed among those with mental health symptoms and alcohol severity status.

Results

Descriptive Information

Mental health and alcohol use characteristics are shown in Table 1. The average AUDIT score was 8.21 ($SD=5.03$) and average number of drinks consumed per week was 6.04 ($SD=5.39$). A total of 32.4% ($n=46$) of CC students screened positive for depression symptoms, 24.6% ($n=35$) screened positive for anxiety symptoms, 21.8% ($n=31$) screened positive for both depression and anxiety symptoms, and 35.2% ($n=50$) screened positive for depression or anxiety symptoms.

Mental Health Service Utilization

A total of 28.4% ($n=40$) of CC students reported they had received mental health services in the past 12 months. A total of 40.8% ($n=58$) of CC students reported a perceived unmet service need at some point the past 12 months (i.e., needing mental health services but not receiving it at some point in the past 12 months).

Barriers to Service Utilization

Students who reported a perceived unmet mental health service need were then asked to select all responses as to why they did not get services (Table 2). The most common responses were: thought could handle the problem without treatment (74.1%), did not have time because of job, childcare, or other commitments (48.3%), could not afford the cost (37.9%), did not think treatment would help (36.2%), and did not know where to go to get services (31.0%).

Barriers as a function of mental health symptoms.—Students who screened positive on mental health symptoms (i.e., depression or anxiety) were more likely to report not accessing services because they could not afford the cost compared to individuals without mental health symptoms, $\chi^2(1, N=58)=4.156, p=.041$. There were no other differences in barriers between those with acute mental health symptoms and those without.

Barriers as a function of alcohol use.—There were no differences in barriers to service utilization between those with greater AUDIT scores (i.e., ≥ 8) than those with low AUDIT scores (i.e., <8). Differences in barriers did emerge when examining individuals at

greater risk for hazardous drinking and problems (i.e., AUDIT score ≥ 16). Students with an AUDIT scores <16 were more likely to report not receiving services because health insurance does not pay enough for mental health treatment ($\chi^2(1, N=58)=9.825, p<.01$), concern that getting mental health treatment or counseling might have a negative effect on their job ($\chi^2(1, N=58)=4.022, p=.045$), and that they did not have time because of job, childcare, or other commitments ($\chi^2(1, N=58)=5.863, p=.015$), than those with an AUDIT score ≥ 16 . There were no other differences in barriers between those with acute alcohol severity and those without.

Number of barriers as a function of mental health symptoms.—Students with depression or anxiety symptoms also reported a greater number of barriers to services than those without symptoms $t(56)=-1.960, p=.055$, as individuals with anxiety or depression reported an average of 4.60 ($SD=3.03$) barriers and individual without these symptoms reported an average of 3.26 ($SD=1.51$) barriers. Individuals with both depression and anxiety symptoms also reported a greater number of barriers to service utilization than those without symptoms $t(56)=-2.798, p<.01$. The average number of barriers endorsed for those with depression and anxiety symptoms was 5.23 ($SD=3.29$) and those without symptoms reported an average of 3.36 ($SD=1.79$) barriers.

Number of barriers as a function of alcohol use.—There was no difference in the number of barriers between those with AUDIT scores ≥ 8 compared to those with scores <8 ($p<.05$) and no difference between those with AUDIT scores ≥ 16 compared to those with scores <16 ($p<.05$).

Discussion

Despite the 8 million CC students in the United States, health behavior research often overlooks these students (Pokhrel, Little, & Herzog, 2014). Although there is emerging research on CC student mental health (Eisenberg et al., 2016; Fortney et al., 2016), considerably less is known about specific barriers to service utilization. CC students are more likely to belong to a lower socioeconomic background and be members of an ethnic minority group, demographic factors that are known to be related to less frequent use of mental health services (Hunt & Eisenberg; 2010; Eisenberg et al., 2011). As young adults with an alcohol use disorder are less likely to perceive a need for mental health services (Wu et al., 2007), the current study aimed to identify mental health symptoms and barriers to service utilization among heavy drinking CC students.

Our findings indicate that nearly one-third (32%) of heavy drinking CC students had a positive depression screen and a quarter (25%) had a positive anxiety screen. Prevalence of positive mental health screens among CC students are higher than those found among four-year students, as research with CC students have found depression rates to range from 20% to 36% and anxiety rates to range from 18% to 29% compared to four-year students with rates of depression ranging from 17% to 24% and rates of anxiety ranging from 10% to 20% (Eisenberg et al., 2007; Eisenberg et al., 2016; Fortney et al., 2016). These findings highlight the need for mental health services for all college students, especially for those attending CC.

We found that slightly less than half (41%) of heavy drinking CC students had a perceived unmet need mental health services in the past 12 months. This finding has significant implications for access to mental health care. In a previous study of young adults, we found 26% reported a perceived unmet need for mental health services (Cadigan et al., 2018). It is possible the current sample of heavy drinking students are more at risk for mental health conditions, especially due to the high comorbidity between depression and alcohol use (Grant & Harford, 1995). The finding that 28% received mental health services in the past 12 months is similar to rates found among other young adults, CC students, and four-year students (Cadigan et al., 2018; Eisenberg, 2016; Sontag-Padilla et al., 2016). Therefore, although the current sample receives mental health services in similar rates as other four-year students and young adults, a greater percentage perceive an unmet need for mental health services than is seen among their peers at four-year students and young adults in general.

Barriers to mental health service utilization were similar to those identified in previous research (Eisenberg et al., 2007; SAMHSA, 2014), with the most common being thought could handle the problem without treatment, did not have time, could not afford the cost, did not think treatment would help, and did not know where to go to get services. The most common reason for not accessing services was the belief that they could handle the problem without treatment, a finding that is common among young adults as many prefer to be self-reliant (Gulliver, Griffiths, & Christensen, 2010). As research shows CC students are often unaware of mental health resources and have limited knowledge of psychoeducation on mental health (Katz & Davison, 2014), these students may be more inclined to not access services if they are unable to characterize their symptoms as mental health difficulties. Additionally, CC students typically have more social roles than four-year students, included being a parent and working fulltime (Provasnik & Planty, 2008), which may foster greater self-reliance and less use of mental health services despite a perceived need for services. Several approaches could be used to address the barrier of self-reliance, including increasing the availability of evidence-based self-help material, increasing mental health literacy including recognizing one's symptoms, and reducing stigma associated with help-seeking behavior (Gulliver et al., 2010).

We also found that students who endorsed mental symptoms were more likely to report not receiving services because they could not afford the cost compared to those without mental health symptoms. Lack of accessibility, including cost, is a common barrier to accessing services (Gulliver et al., 2010). Increasing the accessibility of access to care among CC students should remain a priority. This remains challenging as 42% of all CC have a student health center on campus, with many lacking any mental health services (Monahan, Bonnie, Davis, & Flynn, 2001; Ottenritter, 2002).

Students reporting more barriers to mental health services were those who, presumably, were in the greatest need for services. Students with a perceived unmet need for mental health services reported an average of four barriers. Our findings show students with mental health symptoms reported more barriers than those without symptoms. Specifically, students with mental health symptoms reported 1.5 more barriers than those without mental health symptoms. Further, students with both depression and anxiety reported two more barriers

than those without symptoms. One can assume that the greater number of barriers endorsed, the more difficult it is to access services and problem-solve to overcome the barriers.

Although there were no differences in the number of barriers endorsed, students with greater levels of harmful alcohol use (i.e., AUDIT scores ≥ 16) were more likely to report not receiving mental health services because of: a) health insurance, b) concern treatment would have a negative effect on their job, or c) lack of time due to job, childcare, or other commitments, compared to those without harmful alcohol use. Despite previous research suggesting young adults with an alcohol use disorder typically do not perceive a service need (Wu et al., 2007), our findings show that students engaging in harmful levels of alcohol use did report a need for services, although they did not access the services.

Limitations

There are several limitations to the current findings. Mental health symptoms were assessed using brief screening measures that are used to indicate probable diagnoses. A full interview with a clinician is needed to determine if these individuals meet criteria for a mental health diagnosis. The sample was recruited from three public CC in one metropolitan city in the Pacific Northwest and results may not generalize to other populations of CC students. Mental health service utilization was measured by receiving counseling or outpatient treatment and may not include those who received psychiatric medication. Additionally, the current sample of heavy drinking CC students may be at increased risk for co-morbid mental health symptoms. The rates may be higher than what is found among a general sample of CC students.

Implications for Practice

Despite these limitations, the current study contributes to the emerging literature on mental health needs among CC students. We encourage future research to continue to address barriers to accessing mental health services, especially for this often overlooked population of young adults. Overall, this research is consistent with other findings suggesting that a number of young adults and those in CCs have significant mental health issues, and those most in need report several barriers to getting help or believe they can handle the issues on their own. Administrators and student affairs professionals could best support these students by understanding the variety of barriers to mental health services their students report and to effectively advertise the services offered to reduce such barriers. In a time when resources are limited, training of all student services personnel staff and faculty in evidence-based practices such as motivational interviewing and screening for mental health or substance use may be a worthwhile and cost-effective endeavor.

Acknowledgments

Data collection and manuscript preparation were supported by National Institute on Alcohol Abuse and Alcoholism (NIAAA) Grant R34AA023047. Manuscript preparation was also supported by NIAAA Grant F32AA025263. The content of this manuscript is solely the responsibility of the author(s) and does not necessarily represent the official views of the National Institute on Alcohol Abuse and Alcoholism or the National Institutes of Health. This manuscript has not been published elsewhere and has not been submitted simultaneously for publication elsewhere.

References

- American Association of Community Colleges (AACC). (2013). American Association of Community Colleges-Community college fact sheet-2013. AACC Retrieved from <http://www.aacc.nche.edu/AboutCC/Documents/FactsPrint.pdf>.
- Arnett JJ (2007). Emerging adulthood: What is it, and what is it good for?. *Child Development Perspectives*, 1, 68–73.
- Babor TF, Higgins-Biddle JC, Saunders JB, & Monteiro MG (2001). AUDIT The alcohol use disorders identification test: Guidelines for use in primary health care. World Health Organization, 2nd Edition Geneva, Switzerland.
- Cadigan JM, Lee CM, & Larimer ME (2018). Young adult mental health: A prospective examination of service utilization, perceived unmet service needs, attitudes, and barriers to service use. *Prevention Science*. Advance online publication. doi:10.1007/s11121-018-0875-8
- Cadigan JM, Dworkin ER, Ramirez JR, & Lee CM (2018). Patterns of alcohol and marijuana use among students at 2- and 4-year institutions. *Journal of American College Health*. Advance online publication. doi: 10.1080/07448481.2018.1484362
- Eisenberg D, Golberstein E, & Gollust SE (2007). Help-seeking and access to mental health care in a university student population. *Medical Care*, 45, 594–601. [PubMed: 17571007]
- Eisenberg D, Goldrick-Rab S, Lipson S & Broton K (2016). Too distressed to learn? Mental health among community college students Wisconsin HOPE lab report.
- Eisenberg D, Hunt J, Speer N, & Zivin K (2011). Mental health service utilization among college students in the United States. *The Journal of Nervous and Mental Disease*, 199, 301–308. [PubMed: 21543948]
- Eisenberg D, Hunt J, & Speer N (2012). Help seeking for mental health on college campuses: Review of evidence and next steps for research and practice. *Harvard Review of Psychiatry*, 20, 222–232. [PubMed: 22894731]
- Fortney JC, Curran GM, Hunt JB, Cheney AM, Lu L, Valenstein M, & Eisenberg D (2016). Prevalence of probable mental disorders and help-seeking behaviors among veteran and non-veteran community college students. *General Hospital Psychiatry*, 38, 99–104. Doi: 10.1016/j.genhosppsych.2015.09.007 [PubMed: 26598288]
- Grant BF, & Harford TC (1995). Comorbidity between DSM-IV alcohol use disorders and major depression: results of a national survey. *Drug and Alcohol Dependence*, 39, 197–206. [PubMed: 8556968]
- Grant BF, Stinson FS, Dawson DA, Chou SP, Dufour MC, Compton W, ... & Kaplan K. (2004). Prevalence and co-occurrence of substance use disorders and independent mood and anxiety disorders: Results from the national epidemiologic survey on alcohol and related conditions. *Archives of general psychiatry*, 61(8), 807–816. [PubMed: 15289279]
- Grimes SK, & David KC (1999). Underprepared community college students: Implications of attitudinal and experiential differences. *Community College Review*, 27, 73–92.
- Gulliver A, Griffiths KM, & Christensen H (2010). Perceived barriers and facilitators to mental health help-seeking in young people: a systematic review. *BMC psychiatry*, 10, 113.doi: 10.1186/1471-244X-10-113 [PubMed: 21192795]
- Horn L, Nevill S, & Griffith J (2006). Profile of Undergraduates in US Postsecondary Education Institutions, 2003-04: With a Special Analysis of Community College Students. Statistical Analysis Report. NCES 2006-184. National Center for Education Statistics.
- Hunt J, & Eisenberg D (2010). Mental health problems and help-seeking behavior among college students. *Journal of Adolescent Health*, 46(1), 3–10. [PubMed: 20123251]
- Katz DS, & Davison K (2014). Community college student mental health: A comparative analysis. *Community College Review*, 42, 307–326.
- Kessler RC, Berglund P, Demler O, Jin R, Merikangas KR, & Walters EE (2005). Lifetime prevalence and age-of-onset distributions of DSM-IV disorders in the National Comorbidity Survey Replication. *Archives of General Psychiatry*, 62, 593–602. doi:10.1001/archpsyc.62.6.593 [PubMed: 15939837]

- Knapp LG, Kelly-Reid JE, & Ginder SA (2012). Enrollment in Postsecondary Institutions, Fall 2010; Financial Statistics, Fiscal Year 2010; and Graduation Rates, Selected Cohorts, 2002-07. First Look. NCES 2012-280. National Center for Education Statistics.
- Kroenke K, & Spitzer RL (2002). The PHQ-9: a new depression diagnostic and severity measure. *Psychiatric Annals*, 32, 509–515.
- Kroenke K, Spitzer RL, Williams JB, Monahan PO, & Löwe B (2007). Anxiety Disorders in Primary Care: Prevalence, Impairment, Comorbidity, and Detection Anxiety Disorders in Primary Care. *Annals of Internal Medicine*, 146, 317–325. [PubMed: 17339617]
- Kroenke K, Strine TW, Spitzer RL, Williams JB, Berry JT, & Mokdad AH (2009). The PHQ-8 as a measure of current depression in the general population. *Journal of Affective Disorders*, 114, 163–173. [PubMed: 18752852]
- Monahan J, Bonnie RJ, Davis SM, & Flynn C (2011). Interventions by Virginia's colleges to respond to student mental health crises. *Psychiatric Services*, 62, 1439–1442. [PubMed: 22193790]
- Ottenritter N (2002). National Study on Community College Health. Research Brief. AACC-RB-02-10. American Association of Community Colleges (NJ1).
- Patrick ME, Terry-McElrath YM, Kloska DD, & Schulenberg JE (2016). High-Intensity Drinking Among Young Adults in the United States: Prevalence, Frequency, and Developmental Change. *Alcoholism: Clinical and Experimental Research*, 40, 1905–1912. doi: 10.1111/acer.13164
- Pokhrel P, Little MA, & Herzog TA (2014). Current methods in health behavior research among US community college students: a review of the literature. *Evaluation & The Health Professions*, 37, 178–202. [PubMed: 24227658]
- Presley CA, Meilman PW, & Leichter JS (2002). College factors that influence drinking. *Journal of Studies on Alcohol, Supplement*, 14, 82–90.
- Provasnik S, & Planty M (2008). Community Colleges: Special Supplement to the Condition of Education 2008 (NCES 2008-033). National Center for Education Statistics, Institute of Education Sciences, U.S. Department of Education Washington, DC.
- Schulenberg JE, & Maggs JL (2002). A developmental perspective on alcohol use and heavy drinking during adolescence and the transition to young adulthood. *Journal of Studies on Alcohol, Supplement*, 14, 54–70. doi: 10.15288/jsas.2002.s14.54
- Sheffield FD, Darkes J, Del Boca FK, & Goldman MS (2005). Binge drinking and alcohol-related problems among community college students: implications for prevention policy. *Journal of American College Health*, 54, 137–141. doi: 10.3200/JACH.54.3.137-142 [PubMed: 16335480]
- Sontag-Padilla L, Woodbridge MW, Mendelsohn J, D'Amico EJ, Osilla KC, Jaycox LH, ... & Stein BD. (2016). Factors affecting mental health service utilization among California public college and university students. *Psychiatric Services*, 67, 890–897. [PubMed: 27032662]
- Spitzer RL, Kroenke K, Williams JB, & Löwe B (2006). A brief measure for assessing generalized anxiety disorder: the GAD-7. *Archives of Internal Medicine*, 166, 1092–1097. [PubMed: 16717171]
- Substance Abuse and Mental Health Services Administration (SAMHSA). (2014). Results from the 2013 National Survey on Drug Use and Health: Mental Health Findings, Rockville, MD 2013 National Survey on Drug Use and Health: Mental Health Findings NSDUH Series H-49, HHS Publication No. (SMA) 14-4887.
- Velazquez CE, Pasch KE, Laska MN, Lust K, Story M, & Ehlinger EP (2011). Differential prevalence of alcohol use among 2-year and 4-year college students. *Addictive Behaviors*, 36, 1353–1356. doi: 10.1016/j.addbeh.2011.07.037. [PubMed: 21868168]
- Wall AF, Bailey Shea C, & McIntosh S (2012). Community college student alcohol use: developing context-specific evidence and prevention approaches. *Community College Review*, 40, 25–45. doi: 10.1177/0091552112437757
- Wang PS, Lane M, Olfson M, Pincus HA, Wells KB, & Kessler RC (2005). Twelve-month use of mental health services in the United States: results from the National Comorbidity Survey Replication. *Archives of General Psychiatry*, 62, 629–640. [PubMed: 15939840]
- Wu LT, Pilowsky DJ, Schlenger WE, & Hasin D (2007). Alcohol use disorders and the use of treatment services among college-age young adults. *Psychiatric Services*, 58, 192–200. [PubMed: 17287375]

Table 1**Substance Use and Mental Health Characteristics**

	Mean (SD) or % endorsing
Drinks per Week	6.04 (5.39)
AUDIT Score	8.21 (5.03)
% with AUDIT 8	44.4% (n=63)
% with AUDIT 16	8.5% (n=12)
PHQ-8 Score	7.29 (5.63)
GAD-7 Score	6.56 (5.62)
Positive Screen For Depression	32.4% (n=46)
Positive Screen For Anxiety	24.6% (n=35)
Positive Screen For Depression or Anxiety	35.2% (n=50)
Positive Screen For Depression and Anxiety	21.8% (n=31)
Received Mental Health Service in Past 12 Months	28.4% (n=40)
Perceived Unmet Need for Mental Health Services	40.8% (n=58)
Number of Barriers to Mental Health Services	4.07 (2.61)
Number of Barriers For Those With Depression or Anxiety	4.60 (3.03)
Number of Barriers For Those Without Depression or Anxiety	3.26 (1.51)
Number of Barriers For Those With Depression and Anxiety	5.23 (3.29)
Number of Barriers For Those Without Depression and Anxiety	3.36 (1.79)

Note. $N=142$. Positive screen for depression= PHQ-8 10; Positive screen for anxiety= GAD-7 10; Number of Barriers to Mental Health Service Utilization ($N=58$), There was a range of 1-14 barriers endorsed

Table 2**Barriers to Mental Health Service Utilization by Among Heavy Drinking Community College Students**

Which of these statements explain why you did not get the mental health treatment or counseling you needed. Please check all that apply.	N (%)
Health Insurance	
Could not afford the cost.	22 (37.9%)
Do not have health insurance	9 (15.5%)
Health insurance does not cover any mental health treatment or counseling.	5 (8.6%)
Health insurance does not pay enough for mental health treatment or counseling.	8 (13.8%)
Stigma/Job Concerns	
Concern that getting mental health treatment or counseling might cause your friends or family to have a negative opinion of you.	13 (22.4%)
Concern that getting mental health treatment or counseling might have a negative effect on your job.	7 (12.1%)
Concern that you might be committed to a psychiatric hospital or might have to take medicine.	8 (13.8%)
Privacy Concerns	
Privacy concerns (e.g., your information might not be kept confidential).	6 (10.3%)
Did not want others to find out that you needed treatment.	11 (19.0%)
Logistical Issues	
Did not know where to go to get services.	18 (31.0%)
Did not have time because of job, childcare, or other commitments	28 (48.3%)
Did not have transportation, or treatment was too far away, or the hours were not convenient.	10 (17.2%)
Didn't Think Need Help	
Did not think you needed treatment at the time.	19 (32.8%)
Thought you could handle the problem without treatment.	43 (74.1%)
Did not think treatment would help.	21 (36.2%)

Note. N=58.