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College Students: Mental Health Problems and Treatment Considerations

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Abstract

Attending college can be a stressful time for many students. In addition to coping with academic pressure, some students have to deal with the stressful tasks of separation and individuation from their family of origin while some may have to attend to numerous work and family responsibilities. In this context, many college students experience the first onset of mental health and substance use problems or an exacerbation of their symptoms. Given the uniqueness of college students, there is a need to outline critical issues to consider when working with this population. In this commentary, first, the prevalence of psychiatric and substance use problems in college students and the significance of assessing age of onset of current psychopathology are described. Then, the concerning persistent nature of mental health problems among college students and its implications are summarized. Finally, important aspects of treatment to consider when treating college students with mental health problems are outlined, such as the importance of including parents in the treatment, communicating with other providers, and employing of technology to increase adherence. It is concluded that, by becoming familiar with the unique problems characteristic of the developmental stage and environment college students are in, practitioners will be able to better serve them.

Keywords

College; Mental health; Treatment considerations

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Mental health problems are very common among college students [1]. This may be due to the fact that attending college corresponds to a challenging time for many traditional and non-traditional undergraduate students. Traditional college students start college after completing high school, are typically younger, depend on parents for financial support, and do not work or work part-time [2]. Thus, in addition to stress related to academic load, these students may have to face the task of taking on more adult-like responsibilities without having yet mastered the skills and cognitive maturity of adulthood. For example, many traditional college students may face potentially stressful experiences for the first time including working, being in a significant relationship that may lead to marriage, or having housemates with cultures and belief systems different from their own [3]. Non-traditional college students are often employed full-time, older, and may have dependents other than their spouses [3]. Thus, this group of students may have to cope with meeting work and family demands in addition to academic requirements. In these contexts, many college students may experience the persistence, exacerbation, or first onset of mental health and substance use problems while possibly receiving no or inadequate treatment. With the increasing recognition of child mental health issues and the use of more psychotropic medications, the number of young adults with mental health problems entering college has significantly increased. For example, in a survey of 274 institutions, 88 % of counseling center directors reported an increase in “severe” psychological problems over the previous 5 years including learning disabilities, self-injury incidents, eating disorders, substance use, and sexual assaults [4]. Thus, there is an increase in demand for counseling and specialized services. However, the increase in demands has not always corresponded to an increase in staff [4]. In particular, counseling centers are in need of psychiatrists with expertise in treating traditional as well as non-traditional college students, two groups with specific age-related characteristics and challenges. In this commentary, the prevalence of psychiatric and substance use problems in college students, as well as their common onset, will be described. Next, the worrisome persistent nature of mental health problems among college students and its implication will be discussed. Finally, important treatment considerations for traditional and non-traditional college students will be outlined.

Prevalence of Mental Health Disorders

Most mental health disorders have their peak onset during young adulthood. Kessler et al. [5] observed that by the age of 25 years, 75% of those who will have a mental health disorder have had their first onset. Among traditional students, the significant disruptions associated with attending college may exacerbate current psychopathology that first manifested in childhood and/or trigger its first onset. Similarly, non-traditional students who may have to attend to the demands of their numerous roles (work and family) may experience an exacerbation of their symptoms or a relapse.

Anxiety disorders are the most prevalent psychiatric problems among college students, with approximately 11.9 % of college students suffering from an anxiety disorder [1]. Among the anxiety disorders, social phobia has an early age of onset (median age of onset between 7–14 years), while panic disorder, generalized anxiety disorders (GAD), and post-traumatic stress disorder (PTSD) have somewhat later onsets [6]. Giaconia et al. [7] found that in a community sample of adolescents the peak risk period for developing PTSD was between

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the ages of 16 to 17 years, with approximately one third of the sample developing the disorder by the age of 14 years [7]. Through a national mental health survey, Vaingankar et al. [8] examined 6,616 respondents and reported that the mean age of onset for obsessive-compulsive disorder (OCD) was 19 years of age and 20 years of age for GAD. Thus, many traditional students with PTSD may have experienced symptoms before college, whereas those with GAD and OCD may start experiencing symptoms while in college.

Another common mental health problem among college students is depression, with prevalence rates in college students of 7 to 9 % [1, 9]. Zisook et al. [10] found that over half of all cases of depression had a first onset during childhood, adolescence, or young adulthood. Similarly, others have shown an elevated risk for mood disorders beginning in the early teens increasing with age in a linear fashion. In the National Comorbidity Survey-Replication study, Kessler et al. [6] reported that one out of every five individuals with depression had their first episode by the age of 25 years. The onset of bipolar disorder (BAD) appears to follow a similar trend. Approximately 3.2 % of college students meet the criteria for BAD [1]. An emerging literature has shown that the majority of adults with BAD have the onset of their disorder in child and adolescent years, with at least a third of adults with BAD having their onset before the age of 12 years [11].

Suicide, although not a specific diagnosis, is the third leading cause of death among young adults and is a significant problem among college students [12]. A large survey reported that among 8,155 students, 6.7 % reported suicidal ideation, 1.6 % reported having a suicide plan, and 0.5 % reported making a suicide attempt in the past year [13]. Given that many students with suicidal ideation do not seek treatment, it is critical to implement screening strategies to identify them and engage them in treatment [14, 15]. Among the major risk factors for suicide in this age group are depression [16], hopelessness [17, 18], and substance use [19, 20].

Eating disorders such as bulimia, anorexia, and binge eating are common and often have their onset during adolescence with a rapid increase in risk during early adulthood [21]. For instance, a survey of 2,822 college students reported that 9.5% of students screened positive for an eating disorder with a greater proportion of females relative to males (13.5 vs. 3.6 %, respectively) [22]. Stice et al. [23] found that peak periods of risk for onset was between 17 and 18 years of age for bulimia nervosa and binge-eating disorder, and was between 18 and 20 years for purging behavior (feeding or eating disorder not elsewhere classified). They also found that sub-threshold eating disorders are even more common than full criteria-eating disorders, with both full and subthreshold disorders associated with significant impairment [23].

Attention-deficit/hyperactivity disorder (ADHD) onsets during childhood and persists into adulthood in approximately one half of cases and negatively affects many critical areas in young adults. Between 2 and 8 % of college students suffer from ADHD and approximately one fourth of students receiving disability services have ADHD [24]. ADHD is associated with poor academic performance [25], social difficulties, and an increased risk for alcohol and drug use [26] that further exacerbate difficulties in college.

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There is a paucity of literature regarding the prevalence of schizophrenia among college students; however, it appears that symptoms in the psychotic spectrum are not uncommon among college students. Studies have described the course of schizophrenia as having its beginning in early adolescence and persisting into young adulthood. Sham et al. [27] studied 270 schizophrenic probands in an older Swedish study and found that for both males and females there was a rapid increase in the onset of schizophrenia in late teens and early twenties followed by a lower risk of onset in the late twenties. Similar results were found by Hafner et al. [28], who studied 267 patients with schizophrenia and found that the initial onset of the disorder showed an early and steep increase in young adulthood until the age of 25 years. Furthermore, they found that 47% of females and 62% of males in the sample had their first symptoms of schizophrenia before the age of 25 years. Thus, young adults in college may experience the prodromal or early manifestation of a first onset of a psychotic disorder.

Autism spectrum disorders (ASDs) include a group of related complex and chronic neurodevelopment disorders, which are generally characterized by a variable presentation of problems with socialization, communication, and behavior [29]. Although ASDs are typically considered very disabling, a number of young people with ASDs do not have co-occurring intellectual impairment or language speech impairment (i.e., high functioning autism spectrum disorder and Asperger's disorder) and are able to attend college. Interestingly, a sample of 667 college students at a single university was used to diagnostically and dimensionally assess the rate of high functioning ASD in college populations. The study found that depending upon the ascertainment method between 0.7 and 1.9 % of college students could meet the criteria for high-functioning ASD [30]. Although the severity of ASD may decline during the adult period, individuals continue to have poor social functioning and often continue to require services [31–34]. Thus, to enable people with ASD to succeed in college, providers should ensure that specific accommodations regarding academics, independent living, and social and vocational counseling are implemented [35].

Substance Use Among Young Adults in College

The use of alcohol and illicit drugs peaks during young adulthood and slowly declines with age [36]. Therefore, it is not surprising that the most prevalent problem among college students is the presence of substance use disorders. Approximately one in five college students meet the criteria for alcohol use disorder (AUD) in the previous year (12.5 % alcohol dependence and 7.8 % alcohol abuse) [37]. Another hazardous behavior common among college students is binge drinking, defined as consuming four standard drinks for women and five for men in a 2-h period [38]. Nearly half (44 %) of college students binge drink, and one in five engages in this behavior frequently [39, 40]. Binge drinking is considered the number one public health hazard and the primary source of preventable morbidity and mortality for college students in the USA. Among college students, alcohol consumption is associated with motor vehicle accidents, another leading cause of death in this age group [41], accidental injuries, unsafe sex, sexual assaults, and poor classroom performance, as well as impairments in prefrontal cortex functions such as memory and attention [39, 40, 42, 43]. Furthermore, many college students who are heavy drinkers

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continue to exhibit substance use-related problems after college [44, 45] and later develop an AUD [46]. Nicotine use is also very common, with 22–40 % of adolescent and young adult smokers meeting the criteria for dependence [47–49]. Drug use disorders are less common, with approximately 1 in 20 students meeting the criteria (4.2 % drug abuse and 1.4 % drug dependence) [1]. Marijuana use is very prevalent in this population. A study by Suerken et al. [50] found that 30 % of those entering college admitted to using marijuana before college entry. Furthermore, according to the most recent 2012 data from the National Survey on Drug Use and Health [36], approximately 23.5 % of male full-time college students and 16.1 % of female full-time college students are current marijuana users. Cannabis use has been shown to negatively influence cognitive performance, memory, and achievement motivation, all of which can deleteriously impact educational achievement and lead to higher risk of school dropout, lower occupational attainment, and workforce failure [51–53]. Among college students, binge drinking and cannabis use often co-occur. College students who drink heavily are approximately ten times more likely to use marijuana than those that are light drinkers [54]. Data from the National College Health Risk Behavior Survey shows that binge drinking students are nine times more likely to report lifetime use of marijuana than their non-binge drinking peers [55]. The increased risk for using illicit substances among binge drinkers has serious implications, given that alcohol use in combination with drug use is known to increase substance-related negative consequences [56], even when controlling for level of drinking [57].

In addition to substance use and hazardous alcohol use, college students often engage in non-medical use (or misuse) of prescription medications, namely taking prescription medications without a prescription or taking more than prescribed. Although in the past 2 years, the rates of non-medical use of pain relievers among young adults have decreased, they continue to be high [58]. According to the National Survey on Drug Use and Health, approximately one in ten young adults reported non-medical use of pain relievers in the past year [59]. Data suggest that the most commonly misused medications among college students include opioids, benzodiazepines (sedative/hypnotics), and amphetamine/methylphenidates (stimulants), with 5–35 % of college students having misused stimulants [60]. In a nationwide representative sample of 10,904 college students, McCabe et al. [61] found that the rates of non-medical use of prescription stimulants were highest among Caucasians, males, members of fraternities and sororities, and those who have lower grade point averages. In a study by Garnier-Dykstra et al. [62], assessing 1,253 college students, they found that by year four 61.8 % of students were offered prescription stimulants at least once and approximately one third had used them non-medically. They found that subjects endorsed friends as the most common source of prescription stimulants and the most common reason for use was to study [62]. Of concern is that over the past 20 years the rates of overdoses involving prescription drugs in the USA have reached epidemic proportions, with increased risk of overdosing for those using opioid analgesics or benzodiazepines and who have multiple prescriptions [63]. Nonmedical use of prescription medications often co-occur with heavy alcohol use [64], a worrisome occurrence given that alcohol taken in combination with analgesic opioids may further inhibit activity in the central nervous system, increasing the risk of oversedation, respiratory depression, and death. Regrettably, college students do not appear to view prescription drug abuse as problematic [64].

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Practitioners should communicate with college students about the ethical, medical, psychological, addictive, and legal issues of prescription drug abuse. College students should be advised to take their medications as prescribed and not give or sell their medications to others. Safe storage of controlled substances such as benzodiazepines or stimulants is important.

Implications of Age of Onset on Trajectory of Psychopathology

When assessing college students, it is critical to determine the age of onset of current psychopathology. Specifically, early age of onset of any mental health disorder is associated with poorer outcome and may be associated with a different presentation from that of later onset. For example, several studies have found that early-onset anxiety disorders are associated with greater severity and chronicity than adult-onset [65]. Childhood onset anxiety appears to increase the likelihood for the development of other subsequent psychiatric comorbidity [66, 67]. Early age of onset of obsessive-compulsive disorder is associated with more symptomatology [68], higher rates of comorbid tic disorders [69], and higher frequency of tic-like compulsions [70]. Multiple studies have shown that childhood onset mood disorders are linked to longer episode duration, a higher number of depressive episodes among women, increased suicidality and need for hospitalization, and increased risk for other co-occurring mental health problems in adulthood [71–73]. Similarly, an earlier onset of bipolar disorder is more problematic as it is associated with higher risk for co-occurring psychiatric and substance use disorders, less lithium responsiveness, more mixed presentations, and increased illness burden [74–79]. Likewise, studies suggest that the onset of schizophrenia before the age of 18 years may correspond to a more chronic form of the disorder [80–82] with studies reporting an overall lower psychosocial functioning and poorer long-term outcome related to early-onset schizophrenia [81, 83, 84]. Finally, among college students, age of first alcohol use is associated with heavier use and worse alcohol-related problems [85].

In summary, mental health problems are prevalent in college students, with substance use, anxiety, and mood disorders being the most common. Traditional college students are in a transitional age, young adulthood, which is associated with numerous stressors and during which many mental health problems often first occur. Non-traditional college students also face numerous stressors associated with having multiple roles, demands, and financial obligations. College students who have their first onset of mental illness or initiate substance use during childhood or adolescence appear to have a more pernicious trajectory and course of illness. Early identification of college students with mental health problems and thorough assessments are critical in order to provide adequate services and to ensure better outcomes, such as graduation.

Significance of Early Identification of Mental Health Problems and Outreach Strategies

Among college students, mental health problems not only are common, but they often persist for several years. Zivin et al. [86], through longitudinal data on 763 students, observed that 60 % of those who had a mental health problem at baseline continued to report

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at least one mental health problem 2 years later. The rate of persistence differed among disorders. For example, eating disorders were reported as most persistent, with 59 % of those reporting an eating disorder at baseline still having it at follow-up. Of the students with depression at baseline, 27 % continued to have it 2 years later. Self-injury behavior and suicidal thoughts also persisted. Approximately 40 % of students continued to report self-injury behavior and 35 % continued to report suicidal thoughts 2 years after baseline [86].

Lack of identification or acknowledgement (denial) of mental health symptoms and/or lack of or inadequate treatment are common problems among college students and may contribute to the persistence of mental health problems in this population. For instance, in a study by Zivin et al. [86], less than half of the college students with mental health problems persisting over 2 years received mental health treatment during that time period [86]. Other studies have also shown that the rates of treatment in college students are very low. For example, in the 2001–2002 National Epidemiologic Survey on Alcohol and Related Conditions (NESARC), a national survey on adults including 2,188 college students, data showed that only 18 % of students with past year mental health diagnoses had received treatment in the previous year [1]. Specifically, 34 % of stder, 15 % of students with a diagnosis of anxiety disorder, and only 5 % of those with an alcohol or drug disorder received treatment. Similarly, the Healthy Minds study, a large online survey of college mental health, found that only 36 % of students who screened positive for a mental health problem including depression, panic disorder, GAD, suicidal ideation, or self-injury received treatment in the previous year [87]. A few reasons have been proposed for the low rates of help seeking in this population including fear of personal stigma, not perceiving treatment as urgent or essential, and lack of time [88, 89]. The Healthy Minds study also showed that more women receive treatment than men (39 vs. 30 %) [87]. It is concerning that even when students receive treatment it appears that often it is inadequate. Eisenberg et al. [87], on the basis of the Healthy Minds study, outlined that approximately only half of the students with depression received adequate care, defined as receiving 2 months of an antidepressant medication or at least eight sessions of counseling or therapy.

The early identification and treatment of psychopathology and substance use disorders impact the ultimate trajectory and sequelae of the disorder(s). With regard to bipolar disorder, it has been shown that the recurrence of episodes is associated with progressive loss of brain volume, that with the progression of the disease patients respond less to both pharmacotherapy and psychotherapy and that early intervention may be neuroprotective [90]. It has, therefore, been suggested to implement an “energetic broad-based treatment” during the first onset of bipolar disorder to change its trajectory [90]. Similarly, the Treatment and Intervention in Psychosis (TIPS) project showed that early detection and delivery of standard treatment for psychosis including antipsychotic medication, individual psychosocial treatment, and psychoeducational multifamily groups had positive effects on long-term functional outcome [91]. Moreover, it was shown that the duration of untreated psychosis has long-term negative effects on the course of the illness [91]. The presence of psychiatric and substance use problems during college is associated with a wide range of negative outcomes from unemployment, serious social and educational impairment [46, 92, 93], and obesity [94]. Together these studies underline the importance of prompt and adequate treatment of psychopathology to prevent neurocognitive and functional decline.

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The problem of low treatment seeking in college students may be addressed by the use of technology. As noted previously, traditional as well as non-traditional students report that they do not seek help because of limited time or because they worry about what others may think [87, 95]. Technology-based programs for screening as well as for treatment would have the advantage of providing anonymity and could be available at any time and may be cost-effective. Escoffery et al. [96] found that 74 % of the students acknowledged having ever received health information online, and more than 40 % reported that they frequently searched the Internet for health information, suggesting that college students regularly use the Internet as a health resource. Several studies explored the use of Web-based surveys of depression and anxiety to screen for mood problems among college students [97]. Hass et al. [98] tested a Web-based method to perform screening for depression and other suicide risk factors, and respondents were provided personalized assessment and online communication with a clinical counselor. They reported that such an approach increased the rate of help-seeking behavior among at-risk students. Our team at the Massachusetts General Hospital Depression Clinical and Research Program showed that the use of emails and social networking sites, such as Facebook, is feasible and cost-effective for reaching out to college students and for depression screening [99]. Taken together, these studies support using Web-based programs with college students as a strategy to enhance treatment seeking. Moreover, it may be advisable to offer computer-based treatments to students who may be afraid of stigma or have limited time. For example, numerous Internet-based cognitive-behavioral therapy approaches are available that have been found effective for treating a range of mental health problems [100–102].

Many students who present at college health centers have mental health problems [103]. Thus, a collaborative relationship between university health centers and behavioral health services may lead to an increase in identification and referrals for behavioral health treatments of students with mental health problems. A collaborative relationship between university health centers and behavioral health services can be categorized in several ways [104]. In the *integrated* model, medical and behavioral health services are delivered in an integrated manner as part of a team program. In this model, the team members have a treatment plan that includes medical as well as behavioral aspects [104]. Alternatively, medical and behavioral health services can be *co-located*, and services are coordinated as a result of medical and behavioral health staff sharing resources and being in the same location. Finally, when medical and behavioral health services are delivered at different locations, the services can be *coordinated*. In this model, information between health centers and behavioral health centers are exchanged in a formalized and established way [104]. In the last two models, the clinicians delivering medical care and those delivering behavioral health services are not part of the same team. An important aspect of coordination of services is the use of electronic medical records (EMRs). Specifically, the adoption of the use of EMRs may be associated with better care for college students because its use may enhance communication between providers, coordination, measurement, and decision support [105].

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Treatment Considerations

Upon completion of thorough evaluation, evidence-based practice (EBP) interventions should be employed for the treatment of this population. Given that numerous resources are available outlining EBP for mental health problems, this commentary will not review them. The American Psychiatric Association (APA) provides evidence-based recommendations for the assessment and treatment of psychiatric disorders online (http://psychiatryonline.org/guidelines.aspx), and the Substance Abuse and Mental Health Services Administration (SAMHSA) has a National Registry of EBP available online as well (http://www.samhsa.gov/ebpWebguide/). The latter also provides links to other resources including the National Guideline Clearinghouse™ (NGC) (http://www.guideline.gov/index.aspx), which is a comprehensive database of evidence-based clinical practice guidelines and related documents maintained by the Department of Health and Human Services. Clinicians may also consult several books, including *A Guide To Treatment That Works* [106]. Given that low adherence is a common problem among college students, providers may opt to enhance EBP with Motivational Interviewing (MI) [107]. MI has been shown to enhance engagement and adherence to psychosocial as well pharmacological treatments [108, 109], and thus, it could be useful to address these problems with college students. When treating college students, several issues ought to be considered related to the developmental stage as well as the context college students are in. Some considerations are relevant for the treatment of both traditional and non-traditional students and some are specific to each group. When treating traditional students, it is important to consider that most of them are still dependent on their parents, thus parental involvement in treatment is advisable. Parents could be invited to attend some of the treatment meetings with their children to address problems involving them or to be enlisted as a support source to facilitate improvement. When communicating with parents, it is important to educate them on what to expect during the early stages of symptom abatement and recovery, enhancing their ability to support the college student in coping with the cycles of both partial and full remissions and relapses over time. Allowing feedback and providing access in a proactive, mutually agreeable manner will not only enhance safety, but also facilitate support and treatment of the college student. Moreover, given the negative effect that parents' mental health problems have on children [110, 111], providers may consider offering referrals for mental health services to the parents who may need them. Services can be offered to parents even if their offspring are not willing to engage in the treatment. For example, the Community Reinforcement and Family Training (CRAFT) has been shown to help parents facilitate seeking treatment of family members who are substance users [112]. With regard to prevention interventions, Turrisi et al. [113, 114] have developed a parent-based intervention (PIB) that has been shown to be associated with reduction of binge drinking in the children of those who received it. Parents' involvement can be beneficial even when they live away from where the students are currently attending college as they could provide, even if remotely, critical information about the patient's history or they could ensure/facilitate continuity of care during school breaks. While the involvement of the parents can be beneficial, given that most young adults in college are over 18 years of age, the patient's consent is required. When conducting mental health evaluations of young adults in college, providers should routinely discuss the pros and cons of parental involvement and encourage it. Ideally,

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parents could be involved at a minimum as a resource for information and to ensure continuity of care.

Issues to consider with non-traditional college students relate to the fact that most of them have to juggle academic responsibilities as well as work and/or family commitments and demands. Thus, to ensure that these students receive adequate services, providers should have extended and flexible hours and even child care options. These students may need additional and different types of services than traditional students such as case management to deal with financial, housing, relational, and child rearing issues. Moreover, to address their family needs, they may be more likely to need couple counseling or family therapy.

One important issue to consider for all college students relates to the problem of continuity of care during school breaks. Providers should ensure continuity of care by establishing services during school breaks or by identifying strategies for maintaining mental health during this period. Care for college students may occur in different ways, and college providers must examine each situation carefully to ensure continuity of care. Some students may have a primary provider where they reside with their parents, may be followed remotely, and may need intermittent support while in college. In this case, the college providers should communicate with the provider at home to be aware of whether the student may be at risk for safety and their needs. Vice-versa, some students may have a primary provider at their college and may need a provider for either medication management or psychotherapy during breaks. In this scenario, the college's providers should ensure that the student will continue to receive adequate care while away. Not having insurance coverage may be a barrier to continuity of care. However, with the new healthcare reform, allowing US patients up to 26 years to be covered by their parent's insurance, college students may be able to have more options for care during breaks. In addition to ensuring continuous care, college providers may have to pay special attention to students whose needs cannot be addressed by the services provided on campus. Therefore, health centers or counseling centers should develop an extensive referral system easily accessible to their students with severe mental illness or in need of higher level of care. Lastly, some students may receive services from providers at their college as well as from outside their institution; therefore, it is critical that all providers coordinate care.

Conclusion

In this commentary, we aimed at illustrating critical issues to consider when treating college students with mental health problems. This commentary did not aim to be exhaustive and it includes a selected number of references. Therefore, the conclusions drawn are not the results of a systematic assessment. Moreover, our illustration refers to issues typical of undergraduate students, and we have not discussed problems present among graduate or medical students. The latter differ from undergraduate students in a number of important ways including academic responsibilities, campus life, and relationships with academic advisors. These limitations withstanding, we believe that mental health providers working in college campuses should enhance their training and knowledge by becoming familiar with the topics reviewed here.

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In summary, mental health problems are common among college students. Academic pressure together with stressors typical of starting and attending college may precipitate the first onset of mental health and substance use problems or an exacerbation of symptoms. Often the nature of psychopathology is chronic due to low rate of treatment seeking and low adherence to treatment. Thus, it is critical to employ outreach programs and implement strategies to ensure treatment retention. Given that many traditional students continue to depend on their family while in college, parental involvement in treatment is important. Finally, given the effect that the academic calendar may have on continuity of care, it is critical for clinicians to ensure that college students receive treatment throughout the year and to coordinate with other clinicians that may be involved in the students' care. Thus, expertise in developmental psychopathology, family dynamics, specific college issues, and systems of care is critical to conduct clinical treatment to college students.

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Implications for Academic Leaders

- Mental health problems are prevalent among college students with substance use, anxiety, and depression being the most common.
- It is critical for mental health providers to develop an extensive knowledge of the prevalence and range of mental health problems occurring among college students and of the various needs of traditional as well as non-traditional college students.
- College students may receive services from mental health providers inside and outside the campus and the need for communication is critical.
- Strategies to enhance treatment seeking and engagement among college students should be implemented.