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BEHAVIORAL HEALTH AMONG COLLEGE STUDENTS INFORMATION & RESOURCE KIT

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Introduction

Introduction

Overview

Since 1999, the National Prevention Network (NPN) Public Information and Media Committee has collaborated with the Substance Abuse and Mental Health Services Administration (SAMHSA) to develop and disseminate a series of communications training materials on various topics related to substance misuse prevention. This ***Behavioral Health Among College Students Information & Resource Kit*** updates and augments information and resources originally presented in the June 2001 ***Prevention Works! Underage and College Age Alcohol Prevention Resource Kit***, the first title in the series made available electronically.

For the second time in the history of this successful Center for Substance Abuse Prevention (CSAP)-NPN collaboration, this new information and resource kit focuses on the prevention challenges and opportunities among America's growing population of young adults enrolled in colleges and universities. Users of the kit are encouraged to share the content with people in their states and communities who are engaged in misuse prevention and mental health promotion.

This new ***Behavioral Health Among College Students Information & Resource Kit*** considers the range of substance misuse and mental health issues many of today's young adults have as they enter colleges and universities or may develop during their college years. The kit provides college and university prevention practitioners, health center staff, and administrators with useful summaries of current knowledge, links, and directions that will make it easier to locate materials relevant to prevention efforts targeting the college population.

Contents

The contents of the ***Behavioral Health Among College Students Information & Resource Kit*** are:

- **Introduction**
- **Overview and Discussion**
- **Alcohol Use, Misuse, and Underage Drinking**
- **Alcohol Access, Availability, and Norms**
- **Illicit Drug Use and Nonmedical Use of Medications**
- **Tobacco Use**
- **Mental Health Issues**
- **Selected Web-based Prevention Resources**
- **PowerPoint Presentation (with speaker notes)**

Whether these sections are used together or separately, they can increase awareness of the wide range of issues faced by young adults enrolled in colleges due to underage and excessive alcohol use, use of tobacco products, illicit drug use (including the increasing prevalence of the use of prescription and over-the-counter medications for nonmedical purposes), and mental health issues. These materials are also intended to help states and communities locate appropriate resources to assist in prevention efforts in the areas of substance misuse and mental health.

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Overview and Discussion

Substance Use and Mental Health Among College Students

Alcohol, illicit drug, and tobacco use is more common among young adults than in any other age group. Substance misuse among college students* reflects this broader prevalence but has specific differences based on factors that include the college setting, culture, experience, and demographics. The most prominent feature of college substance misuse is excessive drinking, with the highest rates occurring among a growing population of 18- to 22-year-olds who are full-time students. In addition to a long history of alcohol and marijuana use, increased misuse of medications has added a new dimension to college substance misuse.

Substance misuse brings a variety of problems to the entire population of college students and presents difficult challenges for campus administrators and surrounding communities. Mental health issues among college students are also common. This trend reflects sources of stress that include individual characteristics and experiences such as family dysfunction, low tolerance for frustration, and weak interpersonal attachments, as well as the often overwhelming pressure of college life, the changing ethnic/cultural and age composition of the student population, and the fact that more of today's students already have mental health diagnoses when they enroll.

Increasing Numbers

College enrollment, as defined as enrollment within two-year and four-year institutions and graduate programs, was 17.5 million in the United States in 2013. This represents a 17 percent increase since 2005.[1]

An expanding young adult population accounts for much of this growth: The number of 18- to 24-year-olds grew from 28.9 million in 2003[2] to 31.5 million in 2013,[3] and the percentage of this group enrolled in college rose from 38 percent to 40 percent.[4] As the college population has increased, its makeup has also changed over time. Females represent 56 percent of all college students in two- and four-year institutions.[5] Since 2000, minority enrollment has grown,-reflecting rising numbers of Hispanic, Asian or Pacific Islander, and Black students.[6] The percentage of older students within the college population has also grown. Students aged 25 or older accounted for 31.1 percent of total college enrollment in 2013, a share that has grown in recent years and is projected to keep rising.[7,8]

A number of conditions, including developmental, social, and environmental factors, contribute to college students' substance misuse and other risky behaviors. A student population that straddles the minimum legal drinking age makes solutions more difficult and increases the need for sound and comprehensive prevention strategies. Students' use of illicit drugs, though largely casual and focused on marijuana, increasingly includes misuse of prescription and over-the-counter drugs, often for self-medication.

* Within the context of this information and resource kit, "college student(s)" refers to full-time students enrolled in a four-year undergraduate college or university. Research and data sources define the composition of the college student population differently; therefore, the aforementioned definition of "college students" applies unless otherwise specified (e.g., two-year college students, graduate students).

Tobacco use among college students, though linked with other substance use, is less widespread, has trended downward, and displays complex patterns. Mental health issues also have a role to play in students' well-being at college. A growing number of students have mental health issues when they enter college or experience such problems as anxiety or depression due to the stress of college life. The likelihood of substance use may also be increased among more marginalized students—such as lesbian, gay, bisexual, and transgender students, international students, and racial and ethnic minorities—all of whom are more likely to experience tension regarding their identity and social acceptance. The roles of environmental factors, largely involving availability of and access to substances, and mental health issues connected to students' substance use are explored in greater depth in other sections of this information and resource kit.

Social Influences

Substance misuse among college students is largely driven by the social environment, featuring a longstanding culture of alcohol use that often includes dangerously excessive drinking. This culture is especially pronounced in groups such as fraternities and sororities, often referred to as Greek organizations, and in some groups of athletes. Students' use of marijuana, the most common illicit drug, is also boosted by a recreational mindset that views use of the drug as a rite of passage. Much of college students' use of other illicit drugs, mostly misuse of medications, appears to be related largely to the pressures of college life. Tobacco use, though less common among full-time college students than in the rest of the college-age population, often is fostered by a desire for social inclusion. Social influences on substance use also include norms—also known as widespread but often mistaken beliefs—about the extent and acceptability of substance use among students.

Like other young people, college students are buffeted by broader forces in popular culture, including advertisements, as well as portrayals of substance use and product placements in entertainment. These messages often glamorize or encourage substance use, treat it as normal and integral to social and other situations, and do not accurately depict its adverse consequences. Friendship, adventure, sex appeal, wealth, status, sophistication, and humor are some of the key ingredients in messages that may hold special allure.[9] Marketing of alcohol and tobacco on and near campuses, ranging from promotions in bars to sponsorship of concerts and sporting events, adds immediacy to the pressure of popular culture.

Research supports the notion that exposure to media messages that promote or favor substance use may result in beliefs and intentions that prompt it.[10] However, the varied messages and pervasiveness of popular culture means that effects are cumulative and hard to separate from other factors. Research focused on adolescents has shown that media influence on substance use is mixed with other factors and is secondary to the influence of peers and parents.[11] Although the extent to which messages and social forces in the public arena account for substance misuse among college students is unclear, they form a backdrop that campus-based prevention strategies must acknowledge and address.

Even as college students enter adulthood and may be away from home, parents can exert important influence on students' substance use. This influence can range from expressing positive expectations that students will behave responsibly and adhere to rules and laws, to conveying the unhelpful message that substance use is a normal and even positive part of college life, perhaps with reference to the parents' own college years. Depending on school policies, parents may be notified when students violate a college's

rules on substance use and follow up accordingly. Just as they may have done during their children's adolescent and teen years, parents of college students can continue to set good examples of moderation at home and at on-campus events. Campus-based prevention efforts may be enhanced by reaching out to parents to stay involved with their children in college to prevent and reduce substance use.

Consequences

Substance misuse among college students has frequent and severe negative consequences. These consequences include violent and sometimes fatal effects.

Much of the research on the consequences of college student substance misuse focuses on alcohol. A 2009 estimate of annual immediate physical harm as a result of alcohol use among college students aged 18 to 24 included 1,825 deaths, 599,000 unintentional injuries, and 696,000 students assaulted by another student who has been drinking.[12]

While most injury and death among college students is unintentional, some students consider taking their own lives and some of them attempt it.[13] Studies show a strong connection between suicidal behavior and substance use in both the college and general populations.[14,15] Substance use also can damage students' health. Consequences of excessive drinking include sleep issues and depression.[16]

Substance use among college students also often progresses to the level of a disorder. In, 2015 one in seven full-time college students aged 18 to 22 (14.6 percent) met the criteria for past-year had a substance use disorder. Substance use disorders cause significant impairment, such as health problems, disability, and failure to meet major responsibilities at work, school, or home.[17]

Alcohol use also plays a large role in sex-related harm among college students. College students are more likely to engage in unprotected sex when drunk or high and are more likely to engage in sexual activity with someone they just met. In a study of undergraduates, 42 percent reported engaging in unplanned sexual activity in the past year as a result of their alcohol use.[18] Each year, an estimated 97,000 college students are victims of alcohol-related sexual assault that includes rape as well as forced touching or kissing.[19,20] Sexual assault often is linked to substance use by victims as well as by perpetrators.[21]

Students who misuse alcohol or use illicit drugs are also more likely than students who abstain to have difficulty meeting academic responsibilities. Consequences of college substance use include falling behind in studies, getting poor grades, and dropping out.[22] More broadly, the impact of substance misuse on students' academic performance undermines the very purpose of higher education and the financial sacrifices families make for it.

College substance use may bring disciplinary penalties imposed by schools. In addition to non-punitive actions such as substance misuse education, counseling, and treatment, students may be subject to disciplinary action, including suspension and expulsion from the college. Such actions may be based on substance use or on other violations of college standards, such as damaging property and causing or threatening physical harm. Moreover, substance use often has legal consequences. Students may be arrested for alcohol and drug violations, fighting, and damaging property. Finally, substance-using college

students often diminish the quality of campus life for other students, many of whom report having study and sleep time interrupted and having personal property damaged and destroyed because of intoxicated students.[23]

Prevention Strategies

Campus efforts to prevent and reduce substance misuse are largely focused on: environmental measures to restrict availability and access and to shape social norms on use and acceptability; promotion of mental health and a healthy, caring campus climate; and screening and counseling services. Successful substance misuse prevention efforts on college campuses tend to be visible, to be embraced by top leadership, and to involve multiple partners and components on and off campus.

This information and resource kit highlights a variety of exemplary prevention programs targeting college populations. These programs are among many examples of effective, evidence-based strategies that have been, and continue to be, implemented on college campuses.

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Alcohol Use, Misuse, and Underage Drinking

Alcohol Use, Misuse, and Underage Drinking

"Underage drinking and excessive drinking have negative effects on everything we're trying to do as a university. They compromise the educational environment, the safety of our students, the quality of life on campus, town/gown relationships, and our reputation."

Dr. Judith Ramaley, Former President, University of Vermont in *A Call to Action: Changing the Culture of Drinking at U.S. Colleges* (2002), National Institute on Alcohol Abuse and Alcoholism (NIAAA) (See http://www.collegedrinkingprevention.gov/media/TaskForceReport.pdf)

Alcohol Use Among College Students

The highest rates of excessive alcohol use occur among a growing population of 18- to 22-year-olds who are full-time college students. A student population that straddles the minimum legal drinking age makes solutions more difficult and increases the need for sound and comprehensive prevention strategies. A number of conditions—including developmental, social, and environmental factors—contribute to college students' alcohol use and other risky behaviors.

Widespread and Excessive Drinking

Among the 18- to 22-year-old college-age group, three in five full-time students (58 percent) reported current alcohol use in 2015, and one-third (37.9 percent) reported binge drinking. Binge drinking is when a man consumes five or more drinks on the same occasion and a woman consumes four or more drinks on the same occasion.[1] One in 8 full-time college students (12.5 percent) in 2015 was a heavy drinker (binge drinking on five or more days in a month).[2] In 2015, male students were more likely than female students to engage heavy drinking. Males and females had similar rates for current drinking and binge drinking.[3] Another national survey found male full-time college students more likely than female students to report heavy drinking in the past 30 days (37 percent versus 29 percent).[4]

College males have consistently had considerably higher rates of binge drinking and daily drinking than college females. But since about 2004 the gender gap has been narrowing, with an overall increase in daily drinking by college females and an overall decrease among college males. From 1998 through 2006, binge drinking declined among males but increased among females. Since 2007, binge drinking has declined among both genders and a fairly constant gap remains in their rates.[5]

As measured by the Monitoring the Future Study, the rate of past-month alcohol use among college students who are one to four years beyond high school decreased slightly over the past decade, from 67.9 percent in 2005 to 63.2 percent in 2015. However, the rate remained stable from 2013 to 2015. The binge drinking rate began the 11-year period at 40.1 percent and ended at 31.9 percent, while daily drinking went from 4.6 percent to 3.1 percent. All of these rates have fluctuated within narrow ranges, highlighting the continued importance of prevention programs and strategies.[6]

Among African-American, Hispanic/Latino, and White 18- to 22-year-olds, the rates of past month alcohol use were higher among those who were full-time college students than among others the same age.[7] Rates of binge drinking among White full-time college students in this age group were also higher compared to

rates among part-time students or non-students.[8]

In 2014, the American College Health Association's National College Health Assessment surveyed students at 140 postsecondary institutions. About two out of three students (66.8 percent) reported using alcohol in the past 30 days. About one in seven students (14.9 percent) reported using alcohol on 10 or more of the past 30 days. These frequent drinkers included 17.6 percent of male students and 13.5 percent of female students. This survey also showed that 20.1 percent of college students, including similar percentages of males and females, had never used alcohol.[9]

Consequences of College Drinking

The list of the harmful effects of excessive alcohol use among college students, including large numbers of underage drinkers, is long, and includes death for more than 1,800 young people between the ages of 18 and 24. Nearly 600,000 students in a given year are injured while under the influence of alcohol and upwards of 700,000 are assaulted by other students who have been drinking.[10] Sexual abuse, unsafe sex, academic problems, health problems (including suicide attempts), alcohol-impaired driving, vandalism, property damage, and police involvement—all fueled by alcohol misuse and underage drinking among students—take an enormous annual toll. Alcohol misuse can also lead to alcohol dependence. Thirty-one percent of college students meet criteria for alcohol misuse, with six percent of these individuals diagnosed as alcohol dependent.[11]

Expectations and Beliefs

College students often use alcohol to facilitate social activities, with heavier drinkers expecting more positive effects. Expected effects may include reduced inhibition, acceptance, sex, and sensation. Among female students, explicit reasons for drinking include getting drunk, getting along on dates, feeling good, and forgetting disappointments. Among males, drinking to get drunk stands alone as a prime motive for drinking.[12]

Perceived norms—views of what is common and acceptable—also have a role in college drinking. Many students believe that alcohol and other substance use among peers is greater than it really is and that other students' use is greater than their own. Permissive alcohol norms are linked to increased use, although the effect appears to be greatest when students already have liberal attitudes toward drinking.[13]

In addition to the freedom felt by students no longer bound by parental supervision, college culture often promotes excessive drinking as a mainstay of social life. Fraternities, sororities, and athletic groups may be settings for extreme partying. In addition, alcohol may be readily available through bars, clubs, and stores, and may be promoted through low prices and promotional events.[14] Research has shown that college students are more likely to engage in binge drinking when they are exposed to "wet" environments, where alcohol is prominent and easily accessible.[15]

The Culture of College Drinking

The 1978 movie *Animal House* seems to have perfectly captured all the selectively nostalgic memories many parents have about their college drinking experiences and all the unrealistically favorable expectancies with which many of their adolescent children anticipate college life. Portrayals of college as one endless slapstick comedy awash in alcohol, along with various lists that rank campuses for their party atmosphere, add to the myths of higher education. These depictions support misperceptions among college-bound teens about the actual consequences of excessive drinking, the true social drinking norms at most institutions of higher education, and the real challenge of attending college successfully.

And then there is the actual culture of college drinking, as described in the NIAAA's *A Call to Action: Changing the Culture of Drinking at U.S. Colleges*:[16]

> *"The tradition of drinking has developed into a kind of culture – beliefs and customs – entrenched in every level of college students' environments. Customs handed down through generations of college drinkers reinforce students' expectation that alcohol is a necessary ingredient for social success. These beliefs and the expectations they engender exert a powerful influence over students' behavior toward alcohol.*
>
> *Customs that promote college drinking also are embedded in numerous levels of students' environments. The walls of college sports arenas carry advertisements from alcohol industry sponsors. Alumni carry on the alcohol tradition, perhaps less flamboyantly than during their college years, at sports events and alumni social functions. Communities permit establishments near campus to serve or sell alcohol, and these establishments depend on the college clientele for their financial success.*
>
> *Students derive their expectations of alcohol from their environment and from each other, as they face the insecurity of establishing themselves in a new social milieu. Environmental and peer influences combine to create a culture of drinking. This culture actively promotes drinking, or passively promotes it, through tolerance, or even tacit approval, of college drinking as a rite of passage."*

Living Arrangements

The proportion of college students who drink varies depending on where they live. Drinking rates are highest in fraternities and sororities, followed by on-campus housing (e.g., dormitories, residence halls). Students who live independently offsite (e.g., in apartments) drink less, while commuting students who live with their families drink the least.[17]

A Focus on Individuals

Students who have a problem with alcohol are the most likely to experience or create drinking-related problems on campus.[18] Yet, few college students who engage in frequent binge drinking consider themselves to be heavy or problem drinkers. Research shows that less than three percent of the heaviest drinking students sought help for their drinking.[19]

Approaches that have shown promise in addressing this group involve skill-building and motivational interviewing, in which students receive an assessment of their alcohol consumption and the negative consequences associated with it.[20] Such interventions include teaching students about the risks of drinking and showing students how to monitor their drinking, set limits, reduce the risks of drinking too much, and handle high-risk situations that include drinking.[21]

Screening and Brief Intervention (SBI) Systemic Model
Massachusetts Institute of Technology (MIT)

The objective of the MIT SBI Systemic Model is to identify and reduce high-risk drinking behaviors among high-risk college populations, including first-year students, student athletes, and previous violators of campus alcohol policies, through online feedback and one-on-one interview screenings. Deemed a model program by the U.S. Department of Education in 2004, and the winner of the 2009 NASPA Bronze Award of Excellence and 2009 SAMHSA Science and Service Substance Abuse Prevention Award, the MIT SBI model screens nearly 50 percent of the undergraduate population each year (85 percent of first-year students, 95 percent of student athletes).

Data collected over a two-year period show that student interview screenings were associated with a 38 percent decrease in reported heavy episodic drinking, and a 21 percent decrease in reported frequent heavy episodic drinking (SAMHSA, 2009).

Because students having a problem with alcohol are hard to reach, participation in these interventions may be increased by making screening a routine event in university health centers and using new technology, particularly the Internet, to reach more students.[22] The NIAAA publication *What Colleges Need to Know Now: An Update on College Drinking Research* contains more information and can be accessed at https://pubs.niaaa.nih.gov/publications/UpdateCollegeDrinking/1College_Bulletin-508_361C4E.pdf.

To ensure that all students receive accurate information about the consequences of binge drinking and other high-risk behavior before classes begin, many colleges and universities now require (or, in some cases, strongly encourage) incoming freshmen to complete an online training program. Examples of these programs include AlcoholEdu (http://www.everfi.com/alcoholedu-for-college) and MyStudent Body (http://www.mystudentbody.com). An evaluation of AlcoholEdu, supported by NIAAA, concluded that the course reduced alcohol problems among freshmen during the fall semester, but the effects did not last into spring. The lead evaluator stated that AlcoholEdu is a useful component in a *comprehensive prevention strategy* that comprises campus environmental prevention.[23] MyStudentBody, which includes alcohol education in modules that also address mental health and well-being, was developed through a grant from the National Institutes of Health, according to the program's website.

Underage Drinking at Colleges and Universities

Analysis of data from the Substance Abuse and Mental Health Services Administration's (SAMHSA) 2015 National Survey on Drug Use and Health revealed that among the largely underage population of young adults between the ages of 18 and 22, those who were enrolled full time in college were more likely to drink, binge drink, and drink heavily than others their age who were not attending college at all or were enrolled only on a part-time basis.[24] In 2015, more than half (58 percent) of full-time college students ages 18 to 22 used alcohol in the past month, 37.9 percent engaged in binge drinking, and 12.5 percent engaged in heavy alcohol use.[25]

Underage Drinking Often Begins Before College

Many young people use alcohol and engage in binge drinking before they enter college. Among 17-year-olds, 23 percent reported past-month alcohol use and 15.3 percent reported current binge drinking in 2015.[26] Certain subpopulations of adolescents who may be college-bound report even higher rates of

underage drinking. For example, available data point to substantially higher rates of alcohol consumption and binge drinking among lesbian, gay, bisexual, and transgender (LGBT) teens.[27] In addition, some studies conclude that high school students already involved in heavy drinking choose heavy-drinking friends and gravitate toward heavier drinking groups when they enter college.[28]

Some of the most serious drinking problems at colleges and universities reflect earlier use. For example, students who first became intoxicated prior to age 19 are more likely to be alcohol dependent and frequent heavy drinkers, to drive after drinking, and to sustain injuries that require medical attention.[29] College students who first became drunk before age 13 are at high risk of having unplanned and unprotected sex.[30] Those who arrive at college with an established pattern of binge drinking and heavy drinking may be expected to continue this high-risk behavior. Using the LGBT example, data from a survey at a large university in Arizona, reported at the National Prevention Network Research Conference in August 2010, showed that "frequent heavy episodic drinking" occurred among the LGBT students at a much higher level than among the school's students overall.[31] The earlier youth use alcohol excessively, the more at risk they become in their college years.

Transitional Stress

The transition into college and being removed from familiar networks of support and structure can be a stressful time for many young people, and this stress contributes to increased alcohol consumption, binge drinking, and heavy drinking among newly enrolled underage college students. Such transitions also have been found to increase *risks* for underage drinking. As noted in The Surgeon General's *Call to Action To Prevent and Reduce Underage Drinking*,[32] such events include "Significant transitions (such as acquisition of a driver's license, a parental divorce, graduation from middle school to high school, or the move from high school to college or the workforce), which may increase the adolescent's stress level and/or exposure to different peers and opportunities, making it more likely that he or she will use alcohol."

For many, one such transition begins when adolescents leave home and enter college. The abstract of a journal article on the topic posted on NIAAA's College Drinking–Changing the Culture website notes, "The transition to college involves major individual and contextual change in every domain of life; at the same time, heavy drinking and associated problems increase during this transition."[33] Along with new freedoms, new surroundings, new experiences, and social networks, college separates these young adults from family and established friendships. At the same time, new academic demands, increased independence, and decreased access to parental support and guidance present new challenges that must be dealt with in an environment where alcohol use and heavy drinking tend to escalate.[34]

Because alcohol is legal for students ages 21 and older, the climate for underage college drinking is intensified. As underage students live and socialize with older students, drinking is modeled by seniors, including binge drinking, heavy drinking, and drinking in combination with other high-risk behaviors. In this environment, alcohol becomes more available, and norms favorable to alcohol use are solidified. The combination of underage and of-age students complicates prevention and enforcement efforts.

In addition to setting a standard for drinking, older students of legal drinking age often actively provide alcohol to their underage peers and in settings where little or no attempt is made to prevent underage drinking.[35] The "large majority" of legal-age students who participated in a study at a Midwestern university, for example, reported that they "had provided and continue to provide alcohol to underage students." They rationalized what they were doing as "safe and responsible," since they observed certain

"rules," such as not giving alcohol to someone they knew planned to drive. Much of this behavior took place in student apartments and dorm rooms at small parties and similar social gatherings. But many incoming first-year students gravitate to the larger house parties organized by and for students and expected to turn a profit for their hosts. At these venues, adherence to drinking age laws may be even more lax, while these underage participants may prove to be a loyal and lucrative clientele. Policies notwithstanding, the reality on many campuses is that student social activities revolve around drinking and underage students expect to, and are expected to, drink in order to be included.[36]

The Amethyst Initiative

The Amethyst Initiative is an attempt by some college and university presidents to start a dialogue over whether the drinking age should be lowered to 18. This movement contends that the minimum legal drinking age of 21 is ineffective, encourages clandestine drinking among college students, inclines people under age 21 to make ethical compromises, and is out of line with the legal rights of individuals younger than 21 to vote, sign contracts, serve on juries, and join the military.[37] However, research shows that the parts of the brain that govern judgment and impulse control continue to develop into a person's twenties,[38] which means adolescents—including 18-year-olds—have not yet gained the full ability to control impulsive behavior and are therefore more prone to poor judgment related to drinking.[39] In other words, the brain is not developed enough by age 18 to make broader use of alcohol safe. Some supporters of a lower drinking age also contend that more liberal drinking age laws and attitudes in Europe lead young people there to drink more responsibly than those in the United States. However, in most European countries, young people have higher intoxication rates than in the United States.[40]

Supporters of maintaining the current legal drinking age note that the age 21 drinking laws have saved many lives by reducing highway fatalities.[41,42] In fact, supporters of the age 21 laws also believe that further reductions in underage drinking can be obtained through better implementation of existing policies and practices, that the minimum age for initiation of a behavior must take into account the dangers and benefits of that behavior at a given age, and that underage drinkers are especially vulnerable to damage from alcohol because their brains develop beyond age 21.[43,44] A paper written by a pair of university-based economists published in the spring of 2011 reviewed the empirical literature about the minimum legal drinking age in order to answer the question, "Does the age 21 drinking limit in the United States reduce alcohol consumption by young adults and its harms, or as the signatories of the Amethyst Initiative contend, is it 'not working'?" They concluded that "…the evidence strongly suggests that setting the legal minimum drinking age at 21 is better from a cost benefit perspective than setting it at 18…."[45] These conclusions are further reinforced by research that showed significant declines in alcohol-related crashes, and related injuries and fatalities, after states raised the minimum drinking age to 21.[46,47]

Preventing Underage Drinking at Colleges and Universities

The challenge of preventing and reducing alcohol use among underage students at America's institutions of higher education is substantial and persistent, calling for major counter efforts that are sustained at a level of effectiveness for each succeeding class of first-year students. But there is an array of evidence-based prevention strategies that may be brought to bear and that have been shown to make a positive difference.

The Surgeon General's *Call to Action* and *2016 Report on Alcohol, Drugs, and Health* summarized one list of these:[48,49]

- Establish, review, and enforce rules against underage alcohol use with consequences that are developmentally appropriate and sufficient to ensure compliance. This practice helps to confirm the seriousness with which the institution views underage alcohol use by its students.
- Eliminate alcohol sponsorship of athletic events and other campus social activities.
- Restrict the sale of alcoholic beverages on campus or at campus facilities, such as football stadiums and concert halls.
- Implement responsible beverage service policies at campus facilities, such as sports arenas, concert halls, and campus pubs.
- Hold all student groups on campus, including fraternities, sororities, athletics teams, and student clubs and organizations, strictly accountable for underage alcohol use at their facilities and during functions that they sponsor.
- Eliminate alcohol advertising in college publications.
- Educate parents, instructors, and administrators about the consequences of underage drinking on college campuses, including secondhand effects that range from interference with studying to being the victim of an alcohol-related assault or date rape, and enlist their assistance in changing any culture that currently supports alcohol use by underage students.
- Partner with community stakeholders to address underage drinking as a community problem as well as a college problem and to forge collaborative efforts that can achieve a solution.
- Expand opportunities for students to make spontaneous social choices that do not include alcohol (e.g., by providing frequent alcohol-free late-night events, extending the hours of student centers and athletics facilities, and increasing public service opportunities).
- Implement use/lose laws allowing states to suspend a person's driver's license for underage alcohol violations.
- Raise the minimum legal drinking age.
- Initiate criminal state social host liability laws. Specifically, "social host" refers to adults who knowingly or unknowingly host underage drinking parties on property that they own, lease, or otherwise control. With social host ordinances, law enforcement can hold adults accountable for underage drinking through fines and potentially criminal charges.
- Intervene with Brief Alcohol Screening and Intervention for College Students (BASICS), an example of a brief motivational intervention for which results have been positive. BASICS is

Alcohol and Drug Education Program
Boston College

In an effort to create significant shifts in the Boston College campus culture, the Alcohol and Drug Education Program works to support policies and programs across the university that encourage appropriate student behaviors regarding alcohol use. Components of this program include an active University Committee on Alcohol and Drug Abuse, and a comprehensive alcohol policy that includes a ban on use of student fees to purchase alcohol for university-sponsored events, and a ban on the marketing and promotion of alcohol on campus.

Designated a 2001 Model Program of Alcohol and Other Drug Prevention on College Campuses by the U.S. Department of Education, the Alcohol and Drug Education Program has yielded success on campus; a 1999-2000 survey showed that alcohol-related incidents in a popular housing area for seniors were reduced by 33 percent, incidents involving freshmen in the same area were reduced by 88 percent, and the number of students sent to the infirmary for alcohol intoxication during the first 6 weeks of the academic year was reduced by 46 percent (OSDFD, 2008).

For more information, visit http://www.bc.edu/offices/healthpro/alcohol-and-drug-education-program.html

designed to help students reduce alcohol misuse and the negative consequences of their drinking. Follow-up studies of students who used BASICS have shown reductions in drinking quantity in the general college population, among fraternity members, with heavy drinkers who volunteered to use BASICS, and among those who were mandated to engage in the program from college disciplinary bodies.

In addition, there are federally supported resources dedicated to the prevention of substance misuse problems at America's colleges and universities. NIAAA's College Drinking–Changing the Culture website, at http://www.collegedrinkingprevention.gov, provides comprehensive, research-based information on issues related to alcohol misuse and binge drinking among college students.

NIAAA's CollegeAIM provides research-based information to assist college administrators in comparing and selecting effective alcohol misuse prevention strategies. Strategies are rated for effectiveness, costs, and other criteria. Enlisting campus and community partners can expand the effectiveness of campus underage drinking and alcohol misuse prevention strategies and interventions. Models of campus-community collaboration and matrices of effective strategies are available on the CollegeAIM website at https://www.collegedrinkingprevention.gov/CollegeAIM/Default.aspx.

Facts

- Among full-time college students in 2015, 58 percent were current drinkers, 37.9 percent were binge drinkers, and 12.5 percent were heavy drinkers. Among those not enrolled full time in college, these rates were 48.2, 32.6, and 8.5 percent, respectively.[49]
- Current, binge, and heavy drinking rates among full-time college students have decreased slightly since 3, when the rates were 59.4 (now 58), 39.0 (now 37.9), and 12.7 (now 12.5) percent, respectively.[50,51]
- In 2015, young adults ages 18 to 22 enrolled full time in college were more likely than their peers not enrolled full time (i.e., part-time college students and persons not currently enrolled in college) to use alcohol in the past month, binge drink, and drink heavily.[52]
- Among young adults one to four years past high school, college students are less likely than nonstudents to use nearly all types of illicit drugs.[53]
- Among 17-year-olds, 23 percent reported past-month alcohol use and 15.3 percent reported current binge drinking in 2015.[54]
- Available data point to substantially higher rates of alcohol consumption and binge drinking among LGBT teens.[55]
- In 2015, one in seven 18- to 22-year-old full-time college students (14.6 percent) was classified with illicit drug or alcohol dependence or abuse.[56]
- College students are not passive victims of the risky drinking campus culture. Instead, many incoming students appear to seek out environments that facilitate existing drinking behaviors.[57]

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Alcohol Access, Availability, and Norms

Alcohol Access, Availability, and Norms

Access and Availability

High rates and excessive levels of alcohol use among college students—many of whom are under 21—point to the need for changes in the college environment. Aspects of the college environment, including policies and practices, can make alcohol more or less easy to get and can influence the social climate for drinking. This section examines the availability of and access to alcohol that drives much of its consumption among college students.

Forms of Alcohol Availability

Availability refers to how alcohol can be obtained at the community level. The major forms of alcohol availability are:[1]

- **Retail availability**, which refers to alcohol that is sold commercially. Retail venues where alcohol is served for consumption on the premises include bars, taverns, clubs, and restaurants. Retail establishments that sell alcohol for consumption outside the premises include liquor stores, some gas stations, supermarkets, and minimarkets.
- **Public availability**, which refers to alcohol being served, sold, or shared at places such as sports stadiums and parks and at sponsored events such as receptions, picnics, fairs, and holiday celebrations.
- **Social availability**, which refers to alcohol served privately according to social customs and traditions, is a product of accepted norms for drinking. An alcohol culture is longstanding on many college campuses. Many students enter college with great expectations about alcohol use and its role in propelling their social lives. In addition to the pro-alcohol norms of drinkers, social availability reflects community norms that view alcohol use as socially acceptable, actively encourage it, or tolerate it.

Problems related to alcohol availability typically involve alcohol that is too easily available. Some common examples of excessive alcohol availability are a high density of alcohol outlets in a geographic area or per unit of population and a high percentage of shelf space devoted to alcohol products. Another excess in retail availability involves promotions—such as drinking contests and discounted drink specials—which encourage overconsumption. The prominence of alcohol at campus events such as homecoming weekends, often including parents and other alumni, is a form of disproportionate public and social availability. Private parties with alcohol use as a focal point are perhaps the most common form of the excess that defines alcohol availability in the college social scene.[2]

The social availability of alcohol among college students is facilitated by abundant free time. Research shows that full-time college students spend 27 hours per week on academic activity.[3] These commitments may be further reduced by school and instructor policies that provide latitude in class attendance. Class schedules that allow students to sleep late or to have long weekends facilitate alcohol-heavy socializing.[4] In turn, high-risk drinking negatively affects class attendance, time spent studying, and academic performance.[5,6]

Access to Alcohol

"Access" refers to the methods college students use to obtain alcohol, especially by violating rules and exploiting conditions that do not adequately control availability. Access-related alcohol problems tend to involve weak enforcement of laws and rules. This can include a vendor's failure to conduct age checks or recognize and act on fake identification, failure of campus security personnel or monitors to enforce rules against students bringing alcohol into residence halls, and conditions such as open containers that allow unfettered access to alcohol.

The most common way college students obtain alcohol is to have older friends purchase it legally. These friends may then be rewarded with free alcohol. Students who come to a party are likely to find alcohol there without knowing who bought it and with no restrictions on drinking it. Parents may be another source of alcohol for college students.[7]

Campus Policies to Reduce Access to Alcohol

Environmental strategies that colleges can employ independently to address alcohol availability include development, revision, and stricter enforcement of campus alcohol and drug policies. Steps may consist of increased sanctions for policy violations and restriction of on-campus advertisement of alcohol promotions and party announcements that allude to alcohol or illicit drug use and to venues where substance use may be tolerated. Enforcement of alcohol and drug policies can be complemented by disseminating them and publicizing their enforcement.[8]

Some colleges have banned alcohol on their campuses for all students regardless of age. One research study shows that these schools have fewer heavy episodic student drinkers and that students are less likely to be negatively affected by other students' drinking, such as by being insulted, injured, or experiencing unwanted sexual advances.[9] However, this same study shows that students at colleges with alcohol bans are more likely to attend off-campus parties with alcohol and are no more likely to drink and drive or to use marijuana than students at colleges that permit alcohol. This study suggests that keeping alcohol off campus may provide a protective effect for some students but not others.[10]

Another research study shows that bans only reduce the alcohol use of females.[11] Moreover, student drinkers at schools that ban alcohol engage in as much extreme drinking and experience the same rate of alcohol-related problems as drinkers at schools that do not ban alcohol. To be effective, a campus alcohol ban should have the support of students and take place in a community environment that would not counteract campus efforts because of the easy access to alcohol.[12]

Colleges can also limit alcohol availability on campus by establishing alcohol- or substance-free residences. Variations on this approach include prohibiting alcohol in all campus residences or offering alcohol- or substance-free housing as an option. Some research indicates that colleges that banned alcohol on campus or offered substance-free housing options had fewer drinkers, and as a result, lower binge drinking levels.[13]

Campus policies also can restrict the times and places that alcohol is available to students on campus. They can prohibit the delivery or use of kegs or other common containers of alcohol on campus, set and enforce guidelines for student parties, and eliminate alcohol sales at sporting events.[14]

Opposition to Campus Alcohol Control Measures

Campus-wide alcohol bans face not only violation by students determined to drink, but also opposition from those who think that students of legal drinking age should be allowed to drink on campus, that they should no longer be treated like they are in high school, and that campus alcohol bans encourage drinking and driving.[15]

Measures to address public availability may face resistance because they affect everyone who attends an event, not just students or those who are underage. For example, the University of Minnesota banned alcohol at sporting events amid concerns about lost revenue due to ticket cancellations.[16] As a result, campuses may opt for nuanced approaches, such as limiting advertising of alcohol availability in conjunction with events, controlling access to areas where alcohol is sold, increasing identification checks at on-campus functions, and providing alcohol-free areas at stadiums. Such efforts should include arrangements for security and enforcement of alcohol restrictions.

The Virginia Department of Alcoholic Beverage Control's ban on student publications running advertisements promoting beer, wine, or mixed drinks also has run into staunch opposition. This prohibition has been struck down by one court, reinstated by another, and appealed again as a matter of free speech, lack of impact, and financial burden on student publications.[17]

In addition to restrictions, campus policies can reduce alcohol availability by creating more alcohol-free environments. These include substance-free residences and alcohol-free social options such as parties, game and skate nights, off-campus excursions such as outdoor trips and museum visits, and expanded hours of alcohol-free settings such as late night coffee houses.[18]

Noctis Sero (Late Night) Project
University of Chicago

In 2004, the Noctis Sero Project expanded upon the University of Chicago's existing comprehensive substance use prevention infrastructure to include late-night alcohol-free events, stress management education, and social norms marketing to empower students to challenge their beliefs and behaviors pertaining to alcohol and marijuana use. Some Noctis Sero activities included increasing student access to preventive alcohol and drug information, expanding the dissemination of campus substance use policies and health resources through social norms marketing and campus activities, and increasing substance-free programming such as open skate nights, campus gym nights, and "Mocktail" events (HEC, n.d.).

A significant evaluative component of this project – based on data received through weekly questionnaires at Noctis Sero events, quarterly focus group meetings, and an annual campus-wide health survey – showed a significant decline in reported alcohol and marijuana use among undergraduates and elucidated overestimations of perceived amounts of alcohol consumed by peers. The Noctis Sero Project received a Model Program Award from the U.S. Department of Education in 2004 (OSDFD, 2008).

Partnering to Reduce Student Access to Alcohol

Some environmental strategies require cooperation between colleges and the off-campus community. Strategies that involve working with local law enforcement include increased enforcement of driving under the influence and underage drinking laws, reports to off-campus authorities about illegal alcohol sales to minors and intoxicated patrons by retail outlets, increased police monitoring and patrols near student parties, and enforcement of laws against noise and littering, which are often linked to student drinking.[19]

New rules may be necessary for local authorities to reduce alcohol availability among college students. Examples include limiting the days or hours of alcohol sales; restricting the number and concentration of

alcohol outlets near campus, the container size for alcohol sales, and the number of servings per alcohol sale; and requiring keg registration and use of registered and trained alcohol servers.[20]

Working with the off-campus community also may involve reaching out to local alcohol outlets frequented by college students. Alcohol sellers have a vested interest in not being identified as a high-risk outlet (i.e., one that endangers public health, safety, and community well-being). Along with other community partners, campus officials can engage these businesses in eliminating promotions that encourage intoxication perhaps in favor of advertising that highlights attractions such as music and dancing. Constructive approaches include instituting cooperative agreements on minimum pricing and limiting special drink promotions.[21] Another option is to work with bar and club owners to create alcohol-free, under-21 events where underage students can experience music and dancing in an exciting environment that may draw them away from unsupervised settings featuring high-risk drinking.[22]

Community-Collegiate Alcohol Prevention Partnership (C-CAPP)
San Diego State University (SDSU)

The C-CAPP program is a science-based, data-driven alcohol prevention program that strategically works to change environmental conditions related to alcohol use and misuse among college students living in San Diego. This 2001 Department of Education Model Program uses a coalition of students, community leaders, researchers, and law enforcement and business representatives to develop, implement and evaluate prevention strategies, including increased law enforcement, responsible beverage service training, media advocacy, and policy development. The goals of the program include reducing alcohol promotion at SDSU, increasing and extending enforcement of formal regulations on campus, and reducing retail sales and availability of alcohol to students. C-CAPP efforts have resulted in policy changes, including the elimination of low-priced drink promotion at over 30 bars and nightclubs; and a reduction in the frequency of heavy episodic drinking at SDSU by 30 percent (OSDFD, 2008; The Network, n.d.).

For more information about alcohol and other drug prevention initiatives at SDSU, visit http://go.sdsu.edu/student_affairs/healthpromotion/aodalcoholandotherdrugs.aspx.

Campuses and community partners also can work together to establish responsible beverage service (RBS) programs. These programs cover a range of preventive policies and practices for the sale or service of alcohol. The main feature of RBS programs is to prevent patrons from becoming intoxicated and to ensure that intoxicated people are not served further or exposed to harm. Other features of RBS programs include knowledge about alcohol and its effects, intervening with and refusing to serve intoxicated drinkers, and not participating in activities that encourage heavy drinking.[23] As well as promoting increased vigilance and enforcement by alcohol servers, RBS programs counter activities that encourage or increase heavy drinking and intoxication.[24] In addition to voluntary RBS programs, local authorities can require use of registered and trained alcohol servers.[25]

Studies have shown that RBS programs can be effective but sometimes yield mixed results. For example, server training demonstrates better results in the handling of intoxicated persons than in reducing the sale of alcohol to them. Research also indicates that one-on-one server training may work best.[26]

RBS programs include training the staff at alcohol outlets on checking identification and recognizing fake IDs. However, similar to efforts to prevent alcohol sales to intoxicated patrons, research has shown that to prevent alcohol sales to underage persons, training retailers must be combined with compliance checks. Weaknesses in laws encouraging or requiring retailer training can present a challenge to comprehensive prevention efforts.[27] Therefore, it can be beneficial to work with local business leaders and policymakers to create or strengthen such laws.

Research also has shown that the density of alcohol outlets, especially near college campuses, is associated with greater consumption and related problems. However, the effectiveness of restricting outlet density to prevent alcohol-related problems does not appear to have been documented.[28]

Changing Social Norms

The social availability of alcohol to college students can be countered by initiatives to shape the norms that influence drinking. Norms reflect the dominant or most typical attitudes, expectations, and behaviors of a group and, in turn, regulate group members' actions to perpetuate the collective norm.[29]

One type of social norm refers to what group members typically think is acceptable behavior.[30] Colleges can tackle these attitudes toward underage or abusive alcohol use by clarifying a lack of tolerance for this behavior.[31] Parents and resident advisers also can be engaged to voice expectations that students will behave responsibly.[32]

Challenging College Alcohol Abuse (CCAA)
University of Arizona

CCAA is an evidence-based social norms and environmental management program aimed at reducing high-risk drinking and associated negative consequences at the University of Arizona. The program uses a variety of strategies to address misperceptions about alcohol use and make the campus environment less conducive to drinking. The CCAA media campaign addresses misperceptions by communicating social norms data from surveys conducted on campus and offering an opportunity to change the "public conversation" around alcohol on campus through advertisements, articles in the newspaper, press releases, and other campus displays. Research shows that over 3 years of implementing CCAA at the University (1995-1998), the percentage of surveyed freshmen who reported having 5 or more drinks per occasion decreased from 43 to 31 percent, and the percentage of students who reported getting into trouble with campus police/authorities decreased from 18 to 6 percent. In 2009, the CCAA program was added to the SAMHSA National Registry of Evidence-based Programs and Practices (NREPP, 2007).

For more information about prevention initiatives at the University of Arizona, visit http://www.health.arizona.edu/hpps_aod.htm.

Another type of social norm is students' tendency to view their peers' attitudes toward underage or abusive alcohol use as more permissive than they really are, and to believe that peers drink more often and more heavily than they actually do.[33] A survey of students at 153 postsecondary institutions showed that misperceptions of alcohol and other substance use among fellow students are common. For example, students greatly underestimated the percentage of students who never used alcohol (3.2 percent perceived versus 20.1 percent reported) but greatly overestimated rates of daily drinking (13.2 percent perceived versus 1.0 percent reported). The survey results also showed that perceived use was consistently higher than actual use of tobacco, marijuana, and other drugs in the last 30 days.[34]

Colleges can counter student misperceptions about alcohol use by conducting educational campaigns to provide accurate information about the amount of drinking that occurs among students.[35] Schools can correct students' misperceptions by publicizing data about actual drinking norms through channels such as orientation programs, student newspaper ads and articles, radio programs, lectures, and campus poster campaigns.[36] As students' beliefs about alcohol use moderate, the new perceived norm leads to reduced use, which becomes the new behavioral norm.

Many colleges have registered excellent results from social norms programs, including sharp reductions in heavy episodic drinking and improvements in drinking-related behavior such as setting a limit on the number of drinks consumed, alternating alcohol with other beverages, eating before drinking, not drinking and driving, and avoiding fights.[37]

However, some research has found social norms campaigns to be ineffective, to reduce misperceptions of student drinking but not the drinking itself, or to spur increased alcohol use.[38] The National Institute on Alcohol Abuse and Alcoholism (NIAAA) has advised that social norms campaigns work best in combination with other interventions, as one part of a comprehensive approach to preventing underage drinking among college students.[39]

Targeting Students at High Risk for Alcohol Use

First-year Students[40]

Environmental measures targeting first-year students may reduce their access to alcohol. Such measures reflect recognition that the transition to college is a time of increased risk for alcohol use. First-year students with little or no drinking experience in their high school years often embrace alcohol use upon entering college. Those students who drank frequently in the past may see college life as an opportunity to increase their alcohol use. Residence hall life, unscheduled time, and new freedom from parental supervision make incoming students prone to frequent and heavy alcohol use.

***RU SURE?* Changing the Culture of College Drinking**
Rutgers University

The RU SURE? campaign aims to decrease dangerous drinking among first-year students at Rutgers University by reducing their misperceptions of dangerous drinking as a campus norm. Through a media campaign, peer-led hands-on learning activities in first-year residence halls, collaboration among students and faculty, and a community coalition, the campaign has been effective in reducing drinking habits and misperceptions on campus. The results of on-campus interviews, focus groups, and website feedback show that the percentage of students who could accurately report the percentage of students who did not drink dangerously rose from 17 to 55 percent. The RU SURE? campaign was deemed a Model Program of Alcohol and Other Drug Prevention on College Campuses by the U.S. Department of Education in 2000 (OSDFD, 2008).

For more information about the *RU SURE?* campaign, visit http://commandhealthissues.rutgers.edu/ru-sure.html.

Several requirements can alter the environment for alcohol use among first-year students. Structural measures include requiring all social events during orientation to be alcohol-free, and that first-year students live on campus and attend a life-skills course. Such courses provide a framework not only to promote healthy decision-making and demonstrate realistic norms about alcohol use, but also to focus on the negative consequences of substance use. One approach is to require incoming first-year students to take an online alcohol education course before they arrive on campus. Such courses may include a follow-up component that takes place several weeks after students' arrival at school.[41] Prohibiting fraternity and sorority rush among first-year students is another environmental policy that can reduce high-risk drinking and illicit drug use based on the concept that students going through rush later are likely to be more comfortable and secure in their roles as college students and less prone to social pressure.

Schools can begin to establish alcohol use norms before first-year students arrive on campus. Acceptance letters and advance orientation materials can be used to clarify the institution's expectations for student conduct for both students and their parents. Materials for parents may include guidance for discussing substance use with their child. Research has shown reduced alcohol and illicit drug use among students starting college when parents communicated about substance misuse, and that parental monitoring moderates peer influence.[42] Campus visits before attendance offer an opportunity to convey healthy norms. Student hosts trained in a social norms message can be effective channels for delivering it.

Orientation also provides an opportunity to guide new students to activities that are alcohol-free in practice and healthy in spirit. Volunteer community service offerings tie into the interests of many students while conveying the positive values of the college community.

As new students settle into campus life, colleges can shape the alcohol environment for first-year students by connecting them with student advisers, including resident assistants and personal mentors who can provide accurate information about campus drinking norms and recognize potential substance use problems as the academic year goes on.

Other High-risk Students

Colleges may choose to develop unique programs that specifically target members of high-risk student groups, such as intercollegiate athletic teams, and fraternities and sororities, often known as Greek organizations. Some campuses may develop alcohol availability policies directed to fraternities and sororities based on an identified high risk of underage and excessive drinking; for example, alcohol policies may require Greek organizations to develop internal event management plans. Guidelines may classify events according to openness to members only or nonmembers and event size. Accordingly, the policy may provide for a prescribed number of security walkthroughs, restrictions on the type of alcohol served, and controls on access to it.[43] Other examples of Greek-focused control policies include restricting admission to Greek events to listed invitees, requiring more than one form of identification, identifying attendees by time of arrival, prohibiting alcohol service from common sources such as kegs, and limiting the hours of events.[44]

In order to address high rates of heavy drinking on campuses among student-athletes, colleges may choose to promote alcohol- and drug-free extracurricular programs and develop and enforce campus policies related to alcohol consumption. For example, coaches can develop team-building exercises or programs for athletes that incorporate alcohol-free activities, and organize community service spring break activities for team members. Colleges also can create and enforce policies that limit team participation for alcohol and other drug use, communicate substance-free training requirements for student-athletes in season, and expand these training rules to team members year-round.[45]

In addition, colleges can seek funding for evidence-based, alcohol responsibility intervention programs through existing National College Athletic Association grant programs such as the Health and Safety Speakers Grant Program, the Champs/Life Skills Program, and the CHOICES alcohol education grant. Applications for these programs can be downloaded or ordered from http://www.ncaapublications.com/Default.aspx.[46]

Social norms programs can target Greek organizations, athletic teams, and other groups identified as likely to include high-risk or heavy drinkers, such as particular residential units or individuals identified for special attention. A 2006 research study demonstrated the effectiveness of a program tailored specifically to student athletes in significantly reducing misperception of alcohol consumption norms and reducing the risk of alcohol misuse.[47] Workshops or brief counseling interventions can help high-risk students confront their own misperceptions of peer use and can facilitate discussion about student norms identified in group assessments and campus-wide studies.[48]

Several strategies directed to individual students can affect drinking norms, and combining these measures can be effective in reducing alcohol consumption:[49]

- **Cognitive-behavioral skills training** to change views on alcohol use through activities such as altering expectations about alcohol's effects, documenting daily alcohol consumption, and learning to manage stress;
- **Norms or values clarification** to examine and refute student beliefs about the extent and acceptability of alcohol use among students and tolerance for this behavior; and
- **Motivational enhancement** to kindle students' desire to change their behavior by assessing student alcohol consumption using a formal screening instrument, providing nonjudgmental feedback on personal drinking behavior in comparison with that of others and in terms of its negative consequences, and offering suggestions to support decisions to change.

Facts

- Students attending college in states with more alcohol control policies are less likely to engage in binge drinking.[50]
- Institutions that persistently communicated accurate norms have experienced reductions of up to 20 percent in high-risk drinking.[51]
- Heavy drinkers prior to college tend to increase their drinking in college by joining fraternities and sororities, which often have alcohol-conducive environments.[52]
- Low prices, frequent retail promotions and advertisements, and availability of large volumes of alcohol have been associated with higher rates of binge drinking on college campuses.[53]
- College environments in which alcohol is easy to obtain have been associated with greater risks for smoking among students.[54]
- Banning alcohol consumption on campus is associated with lower levels of both alcohol and marijuana use.[55]
- About 1 in 7 college students (or 14.9 percent) reported using alcohol on 10 or more of the past 30 days.[56]
- Few colleges have reported that empirically supported, community-based alcohol control strategies recommended by the NIAAA College Drinking Task Force were operating in their communities.[57]

NIAAA's CollegeAIM, at https://www.collegedrinkingprevention.gov/CollegeAIM/Default.aspx, provides a matrix for college and universities to use when selecting environmental-level strategies and interventions to reduce underage drinking and alcohol misuse.

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Illicit Drug Use and Nonmedical Use of Medications

Illicit Drug Use and Nonmedical Use of Medications

"Most campuses now will tell you that their mean age is not 21. Instead, they will tell you their students are 16 to 80.…We actually are seeing high school students attending class with college students on a daily basis.…These students are being exposed to the same kind of environment as our 18-year-olds."

Diane Berty, Vice President, Tennessee Independent Colleges and Universities Association

Illicit Drug Use Among College Students

As with alcohol use, college students' use of illicit drugs is largely casual and social. Environmental prevention approaches are important to reduce students' drug use, including clear school policies, strong enforcement, cooperation with the surrounding community, adjustment of social norms, and services for individuals with a drug problem. However, drug use among college students increasingly includes misuse of prescription and over-the-counter (OTC) drugs, often for self-medication to enhance academic performance, cope with stress, or deal with underlying behavioral health issues. As a result, campus-based prevention approaches should include discipline and drug education while emphasizing well-being, mental health promotion, and counseling.

Prevalence and Patterns of Use

In 2015, more college students (21.8 percent) used marijuana than any other illicit drug.[1] The next most common form of illicit drug use among full-time college students was the nonmedical use of prescription pain relievers, tranquilizers, stimulants, or sedatives. (2) The next most common form of illicit drug use among full-time college students was the nonmedical use of prescription pain relievers, tranquilizers, stimulants, or sedatives. In 2015, 5.3 percent of these students reported that they were misusing these drugs.[2] Current illicit drug use occurred at a similar rate among full-time college students and other people ages 18 to 22 (21.8 versus 23.5 percent, respectively). [3]

As in the general population, marijuana is the most commonly used illicit drug among college students.[4] College marijuana use is associated with party-going and socializing, less time studying, and regarding religion and community service as unimportant.[5] One study examined whether marijuana might be a substitute for alcohol in response to efforts to reduce college students' access to alcohol and curb binge drinking, but the results did not support this theory.[6]

National data showed that few college students—1.7 percent in 2015—used cocaine.[7] However, opportunities to use this drug can be significant. A study at one university found that by the fourth year of college, 36 percent of students had been offered cocaine at least once in their lives and the rate of past-year use rose from four percent to 10 percent. Male students had greater opportunities to use cocaine, but among students who used the drug, women had more serious patterns of use and were more likely to be dependent on it.[8] These results show that planning for campus-based prevention efforts must consider a full range of illicit drugs.

Misuse of Medications

Current nonmedical use of prescription drugs among full-time 18- to 22-year-old students was 5.3 percent in 2015. Past month use of stimulants—the most commonly misused medication—was 3.7 percent, and the rates of pain relievers, tranquilizers, and sedatives use were 1.3 percent, 1.1 percent, and 0.2 percent, respectively.[9] Students misuse prescription and OTC medications not only to get high but also to stay awake and alert to study, to improve athletic performance, to ease stress or anxiety, and to help with dieting.[10]

Alcohol & Marijuana eCHECKUP TO GO (e-CHUG)
San Diego State University (SDSU)

The e-CHUG program is an evidence-based, online intervention that can be tailored to target different high-risk groups and individuals on college campuses and motivate them to reduce their use of alcohol and marijuana. The basic intervention consists of a 20- to 30-minute, self-guided check-up for either alcohol or marijuana use that provides quick, confidential feedback that can be tracked over time for changes in use and behavior. A variety of research studies showed that use of the Alcohol e-CHUG program significantly reduced students' risk-taking and drinking behaviors. The e-CHUG program is used in some capacity at over 550 college campuses internationally.

The Marijuana e-CHUG program was developed and first implemented on the SDSU campus in response to the documented increase in marijuana use among college students and the research-based link between marijuana use and binge drinking. It is a versatile program that can be used by campus health professionals as part of clinical assessments and interventions for students; as a required prevention program for all first-year students or other high-risk populations such as athletes and members of Greek organizations; and as a prevention education tool for residential life staff, such as resident advisors and other campus staff members.

Visit http://www1.wne.edu/ade/index.cfm?selection=doc.5803 to explore Western New England University's use of the Marijuana e-CHUG tool.

These medications also are seen as acceptable and they are readily available. Most students who use prescription medications get them easily from friends or family members.[11] Misuse of prescription drugs can be further supported and complicated by the mistaken belief among many young people that prescription medications are a safer alternative to other illicit drugs.[12] However, research with college freshmen found that most students who had an opportunity to use prescription painkillers and stimulants saw great risk of harm in occasional nonmedical use. "Sensation-seekers"—students who like novel experiences and/or place themselves in high-risk situations—were more likely to use prescription drugs nonmedically no matter how harmful they may have perceived the drugs to be. This group may pose the greatest challenge for prevention efforts.[13] Research shows that screening tools such as Form V of the Sensation Seeking Scale (SSS-V) and the Brief Sensation Seeking Scale (BSSS), a more concise version of the SSS-V, can be used to identify and target sensation-seeking young adults effectively. Tactics that can be used to target this challenging population include encouraging alternatives to substance use and offering a wide variety of activities from which to choose on campus that appeal to both "high" and "low" sensation-seekers. Colleges may choose to emphasize activities that most differentiate "high-sensation seekers" from "low-sensation" seekers, such as action-adventure activities or programs, when discussing opportunities and alternatives with this population.[14,15]

Misuse of prescription stimulants like Adderall®, Ritalin®, and Dexadrine®—drugs used to treat attention deficit disorders—are common among college students who are White, members of fraternities or sororities, or earning lower grades. Students who misuse these drugs are more likely to use tobacco, drink heavily, and use illicit drugs.[16] Students use these stimulant medications nonmedically to get high, to stay awake and alert, and to improve their academic performance.[17]

Group First Step
University of Pennsylvania

Group First Step is a brief motivational substance use prevention program/intervention that targets high-risk substance use among individuals and statistically high-risk college campus groups (such as fraternities and sororities). The approach incorporates brief intervention, motivational interviewing, harm reduction strategies, and personalized feedback—interventions that have been individually and collectively found to be highly effective strategies for lowering high risk substance use among college students.

The Group First Step program has been praised for effectively lowering high-risk substance use, increasing protective factors of individual participants, and affecting and addressing group culture that often supports and perpetuates high-risk substance use at the college level. In 2008, the program received recognition from the U.S. Department of Education as a "Model of Exemplary, Effective, and Promising Alcohol or Other Drug Abuse Prevention Program on College Campuses."

Visit http://www.vpul.upenn.edu/alcohol/groupfirststep.php for more information about this intervention.

Nonmedical use of Adderall® is an exception to the pattern of similar drug use among college students and other people aged 18 to 22. The 2007 National Survey on Drug Use and Health (NSDUH) found that full-time college students ages 18 to 22 were twice as likely as non-full-time college students in the same age group to have used Adderall® nonmedically in the past year (6.4 versus 3.0 percent).[18] The 2015 Monitoring the Future Study found a difference of 10.7 percent versus 7.1 percent in past-year Adderall® use between full-time college students and their noncollege peers.[19] An amphetamine, Adderall® has a high potential for dependence or misuse and increases the risk for heart attack and stroke. According to the 2007 NSDUH, full-time students in the 18 to 22 age group who used Adderall® nonmedically were much more likely than those who did not misuse this drug to engage in other forms of illicit drug use, alcohol use, and binge drinking.[20]

Misuse of medications can lead to the use of other drugs. A study of college women linked nonmedical use of prescription drugs with other forms of substance use and with having experienced major depression.[21] Some colleges have seen a spike in heroin use as efforts against misuse and inappropriate prescription of opioid medications have become more effective. This trend has been attributed to the accessibility and low cost of heroin ($3 to $10 for heroin, compared to $20 to $60 for prescription pain pills).[22,23]

OTC drugs also present opportunities for misuse since they are widely available and can be purchased at stores. Commonly misused OTC drugs include remedies for coughs and colds, headaches, and sinus pressure, some of which contain the active cough-suppressing ingredient dextromethorphan (DXM). This substance can produce a "high" feeling and be extremely dangerous when taken in large doses.[24] In very large quantities, DXM can cause effects similar to those of ketamine and phencyclidine (PCP) because these drugs affect similar sites in the brain. These effects can include impaired motor function, numbness, nausea and vomiting, and increased heart rate and blood pressure.[25] OTC drug misuse also occurs with laxatives, diuretics, emetics, and diet pills, as young people try to lose weight.[26]

The extent to which college students misuse OTC drugs is unclear. However, the 2007 NSDUH estimated that 6.5 percent of young adults ages 18 to 25 have misused OTC cough or cold medications at some point in their life and that 1.6 percent have done so in the past year.[27] For all types of use, college students appear to use OTC medications at a higher rate than the general public. In one study, 74.1 percent of college students reported using OTC medications, 70.6 percent used herbal or dietary supplements, and 61.2 used these substances in combination. Self-medication seems to be a factor in

college students' use of OTC medications; amount and frequency of use were linked to self-reported emotional distress.[28]

Combining Medications with Alcohol

Whatever the intent in using medications, mixing them with alcohol can be harmful even if they are not taken at the same time.[29] Research shows that most opioid-related fatalities involve multi-substance use at the time of death, with alcohol found more frequently in opiate deaths than any other substance.[30] This is a particular concern with college students, given their high rate of alcohol use and their propensity to misuse prescription and OTC medications.[31]

The strength of this link increases with the severity of a student's alcohol disorder. Compared to students without an alcohol use disorder, the rate of nonmedical prescription drug use was four times greater among students meeting the diagnostic criteria for alcohol abuse and nine times greater among those classified as alcohol dependent.[32] Students classified as having an alcohol disorder who were most likely to use prescription drugs non-medically were male, White, had grade point averages of B or lower, and attended co-ed colleges and institutions in the South or Northeast.[33]

Bringing Prevention to Your Campus

The data presented throughout this section demonstrate a widespread need for implementation of campus-based prevention approaches related to illicit drug use and nonmedical use of medications. Approaches can include development and enforcement of clear school policies; coordination with the surrounding community; adjustment of social norms through campaigns and other means; and drug education emphasizing well-being, mental health promotion, and counseling.

The following strategies and considerations may be helpful as colleges develop initiatives to prevent illicit drug use and medication misuse on campuses:[34]

- Collaborate closely with key stakeholders and college program and policy influencers when promoting and effecting change on campus;
- Recognize that approaches to prevention can target the college campus as a whole and also the surrounding community—behavioral health problems often require multiple approaches;
- Include students in the development of campus policies and awareness campaigns;
- Work to ensure confidentiality for students reporting illegal behaviors;
- Use validated screening tools to detect drug use issues among students; and
- Develop concrete methods to assess the outcomes of your prevention initiatives.

Campus-based prevention efforts should include screening for co-occurring substance use and mental disorders and education to prevent students from inappropriate self-medication. Other steps may include reminding students that periods of mental anguish are natural and can be overcome with the support of others, and that help is available and there is no shame in seeking it.

Facts

- In 2015, approximately 1 in 7 18- to 22-year-old full-time college students (14.6 percent) was classified with a substance use disorder.[35]
- In 2015, approximately 1 in 69 18- to 22-year-old full-time college students (11.2 percent) was classified with an alcohol use disorder.[36]
- College students who use substances at levels consistent with substance misuse or dependence misperceive others' alcohol and marijuana use to a greater extent than students with lower levels of use.[37]
- Research shows that the rate of increase in lifetime substance use during the first two years of college was greatest for cocaine, hallucinogens, prescription stimulants, and prescription analgesics.[38]

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Tobacco Use

Tobacco Use

"Colleges and universities have a responsibility to provide safe spaces in which their students can learn and live. This should include an environment free from secondhand smoke and advertising that encourages young adults to use deadly tobacco products."

Bernadette A. Toomey, President and CEO of the American Lung Association

Tobacco Use Among College Students

Tobacco use among college students, though linked with other substance use, is less widespread, has trended downward, and displays complex patterns. Many college students who smoke cigarettes do not consider themselves to be smokers. For these students, occasional smoking at parties, often in combination with alcohol use, is a social activity rather than a problematic habit. One form of tobacco use that has increased among college students is waterpipe, or hookah smoking, a social activity that is viewed as less harmful than cigarette smoking. Because tobacco use is legal for virtually all college students, most campus-based prevention efforts focus on ensuring a smoke-free environment. Tobacco prevention messages should be targeted carefully to focus on reducing positive attitudes toward use rather than trying to increase negative ones.

Prevalence and Patterns of Use

In 2005, full-time college students ages 18 to 22 were much less likely than other members of this age group to use tobacco products (22.2 versus 35.9 percent) and to smoke cigarettes (15.9 versus 35.9 percent).[1] African-American college students smoked cigarettes at less than half the rate of other African Americans in the same age group (8.2 percent versus 22.6 percent, respectively).[2]

Cigarette smoking among college students, as well as related attitudes and motivations, varies between two-year and four-year institutions. A study of 18- to 25-year-old undergraduates found a higher rate of current smoking at a two-year college than at a four-year university (43.5 versus 31.9 percent) and a rate of daily smoking that was twice as high (19.9 versus 8.3 percent). Two-year students had less negative attitudes toward smoking, were less likely to smoke for social reasons, and were more likely to smoke to regulate mood or emotion.[3] These differences suggest the need for diverse prevention approaches in two-year and four-year colleges.

Waterpipe, or hookah, tobacco smoking has become increasingly common among college students, since users tend to see waterpipe tobacco smoking as less harmful than cigarette use. A study of first-year college students found that 20 percent had smoked tobacco from a waterpipe in the past 30 days.[4] Converging evidence from a variety of studies related to waterpipe smoke content analysis, user toxicant exposure, and health effects contradicts the perception that waterpipe smoking is less harmful than cigarette smoking.[5] While further research is necessary to solidify these findings, current research suggests that waterpipe tobacco smoking can be as dangerous as cigarette smoking, if not more so.

Many college students who smoke cigarettes do not consider themselves to be smokers. In a study of 14 two- and four-year institutions, half of the students who smoked within the past 30 days denied being a smoker. This view was most common among students who were younger, male, attending four-year colleges, and using alcohol. Denial was associated with not attempting to quit smoking.[6]

College students use a broad range of criteria to define who is a smoker. Identity as a nonsmoker may reflect smoking infrequently, smoking at parties rather than alone, time since initiation of smoking, borrowing cigarettes rather than buying them, not smoking habitually, being able to quit without great effort, and having certain personality and physical characteristics. These criteria affect how motivated students are to quit smoking and their perception of needing to quit.[7]

"You Know You Want To"—A Comprehensive Tobacco Reduction Plan

University of Wisconsin (UW) Oshkosh

Funded by a 2001 grant from the Wisconsin Tobacco Control Board, UW Oshkosh launched a comprehensive tobacco prevention initiative that included a social norms marketing campaign. The theme of the campaign, "You Know You Want To," resulted from a campus-wide administered survey that found major misperceptions about tobacco use among students. The most striking result—that while 96 percent of UW Oshkosh smokers desired to quit smoking by graduation, only 57 percent of students thought quitting smoking was a goal of their peers—became the primary message of the campaign.

A variety of methods were used to deliver normative campaign messages on campus. These included posters with eye-catching captions such as "You Know You Want To… Be Kissed" showing that 91 percent of students would rather kiss a non-smoker; a mannequin named Jane decorated with messages related to smoking that was placed in various locations around campus; and advertisements for campaign-related smoking cessation groups for TV, radio, and print media sources.

Survey data showed that after two semesters of the social norms campaign and additional tobacco prevention activities on the UW Oshkosh campus, the perception of students who wanted to quit smoking before graduation had increased from 57.4 to 74.8 percent. Data also showed a 33.3 percent reduction in the number of students who reported smoking.

A study that classified college smokers showed a range of behaviors and characteristics. For example, moderate and social smokers were more likely than heavy smokers to be current alcohol users and binge drinkers. "Puffers," students who reported smoking only one or two days in the past month and smoking no more than one cigarette on those occasions, were generally younger and, along with social smokers, more likely to belong to Greek organizations. These findings indicate opportunities for targeted prevention efforts by pointing to transition from experimentation to regular use over time and connections between alcohol and tobacco use.[8] Research has shown the efficacy of smoking and other health messages designed for market segments of college students.[9]

Social context is a major factor in students' willingness to smoke and their disinclination to take it seriously. As noted above, for many students, smoking at parties does not make someone a smoker. Likewise, research with first-year college students and members of Greek organizations has shown that smoking, though stigmatized in everyday student life, is viewed as normal and socially acceptable at parties. Perceived benefits include facilitating social interaction with the opposite sex, structuring time and space at a party, and helping a person to calm down when drunk.[10] Consistent with the idea of social smoking, a study found that students who were light smokers (averaging 2.4 cigarettes per day) were more likely than heavier smokers (who smoked more than 2.4 cigarettes per day) to smoke while drinking and to smoke more cigarettes while drinking.[11]

Party smoking may be viewed in the larger context of situational control of the behavior. Cues for students to smoke include being outdoors, being with others who are smoking, and being where smoking is allowed. These cues have more influence among non-daily rather than daily smokers. However, craving has the

strongest influence on smoking and may override opportunistic smoking the more that students engage in it.[12] For students who smoke socially while drinking and do not see themselves as smokers, prevention messages can address tobacco use in the context of alcohol use by emphasizing the risk that drinking may lead to other addictions.

Smoking among college students is influenced more by positive attitudes toward it than by negative ones, even though most students have both types of views. This may occur because smokers recognize the danger of smoking, but downplay the personal risk. Smokers also may ignore future consequences in favor of immediate benefits, a distinct possibility among college students for whom serious consequences are in the distant future. As a result, prevention efforts may work best by dispelling people's positive reactions toward smoking rather than intensifying their negative reactions.[13]

It is well documented that college smokers and nonsmokers differ in their views of smoking risks.[14] Those who smoked reported less risk, more benefit, and more involvement in risky behaviors such as illicit drug use and unprotected sex than nonsmokers.[15]

One study found cigarette smoking to be less common among female college students than among male college students (22.8 versus 31.7 percent). It was associated with being White, using alcohol, and being less physically active. College women's smoking was also driven by stress, which may be managed through physical activity.[16]

College women also may be prompted to smoke by dissatisfaction with their bodies and by mood cues such as seeing thin women and trying on clothing. Thus, a woman may smoke, not with a direct expectation that smoking may control appetite and weight, but to counter the mood produced by reminders of perceived inadequacies in her body.[17]

Smoke Exposure and Smoke-free Settings

Exposure to secondhand smoke (SHS) is associated with morbidity and mortality from a variety of illnesses. A survey of undergraduates at 10 North Carolina universities showed that 83 percent of students had been exposed to SHS in the seven days before the survey. Exposure in a restaurant or bar was the most common setting for exposure, followed by at home or in the same room as a smoker and in a car. Individual characteristics associated with exposure included being a smoker, binge drinking, Greek affiliation, female gender, White race, and higher parental education levels.[18] Hundreds of colleges and universities have adopted full or partial bans on smoking and other tobacco use everywhere on campus.[19]

Tobacco Free College Campus Initiative (TFCCI)
University of Michigan (UM)

In September 2012, the U.S. Department of Health and Human Services launched the TFCCI to promote and support the adoption and implementation of tobacco-free policies on college campuses nationwide. As a leader of, and participant in, the initiative, UM both administers the new TFCCI website (http://tobaccofreecampus.org) and enforces a smoke-free policy for its various campuses.

In June 2011, all UM buildings, facilities, grounds, and university-owned vehicles became smoke-free. In order to transition the campus, signs indicating smoke-free areas were placed around campus, and maps illustrating smoke-free areas were made available to students, faculty, and visitors.

Colleges can work to toward smoke-free campuses by following a process similar to that undertaken at UM. Visit http://www.hr.umich.edu/smokefree to learn more about how the UM smoke-free policy was implemented and to access materials developed for the initiative.

In addition to prohibiting smoking, smoke-free colleges may restrict marketing or sale of tobacco-related products, such as lighters or ashtrays bearing the college insignia, on campus or in the school newspaper.

Timing can be critical, as smoke-free policies may be less successful if they are rolled out too quickly. For example, Oregon State University is using a five-year process to become smoke-free that includes providing free access to tobacco cessation counseling and nicotine gum and patches for students, and insurance coverage of at least $500 for tobacco cessation for faculty covered by the university's health plan.[20] One challenge is that student government turns over each year and new members need to be enlisted to support change. Other problems that smoke-free campus policies may encounter include students switching to smokeless tobacco, enforcement issues, and opposition from institutional governance members or political forces opposed to antismoking efforts.[21] Outreach to faculty and staff and campus-wide collaboration and coordination are important elements for enacting smoke-free policies.

Smoke-free laws also protect college students and the public against exposure to SHS. A study of club-going young adults in New York City found that most smokers and nonsmokers supported an indoor smoking ban.[22] Comprehensive community smoke-free laws also may reduce smoking rates among local college students, especially after the laws are well established.[23] However, a study showed that college students in a city with a smoke-free law were more likely to be exposed to direct marketing strategies in nightclubs and bars (i.e., approached by tobacco marketers and presented with gifts).[24]

While many cities have enacted smoke-free air laws, many of these laws exempt waterpipe or hookah bars. This is a public health concern in view of the growing popularity of waterpipe smoking among youth and young adults, and because sweet-smelling hookah smoke makes it less obvious that hookah bar patrons and employees are inhaling harmful fumes from the tobacco and the charcoal used to heat it.[25] As noted earlier, many college students view tobacco use with a waterpipe as less harmful than cigarette smoking,[26] and this behavior merits attention alongside other issues of tobacco use and prevention.

Facts

- Higher state expenditures on tobacco control programs are associated with reductions in daily smoking and past 30-day cigar use among college students.[27]
- Students attending community colleges drink less heavily than students attending four-year colleges and universities, but are more likely to use tobacco.[28]
- College students who smoke but do not identify themselves as smokers are less likely than self-identified smokers to believe they will smoke in the next 30 days.[29]
- College smokers assessed high-risk behaviors as less risky and more beneficial and predicted greater involvement in these behaviors than their nonsmoking peers.[30]

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Substance Abuse and Mental Health Services Administration

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Mental Health Issues

Mental Health Issues

"We integrate suicide prevention, alcohol and other substance abuse prevention, and stress management programs within our wellness and health promotion strategies. If college students are in need of education, support, skills, and so forth then we're out there doing some form of primary prevention to reduce risk and help improve the outcomes for students."

Karen Moses, Director, Wellness and Health Promotion, Arizona State University

Mental Health Issues Among College Students

Mental health issues are common in the college-age population, often characterized by the pursuit of greater educational opportunities and employment prospects, the development of personal relationships, and the accumulation of associated stresses and worries. While studies show that the overall rate of psychiatric disorders is similar among college-attending individuals and their non-college attending peers, various components of college life can lead to the initiation of such problems or exacerbate existing conditions.[1] The presence of such disorders among college students reflects the often overwhelming pressure of college life, the changing cultural and age composition of the student population, and the fact that more of today's students already have mental health issues when they enroll. The strong link between mental health issues and substance misuse is furthermore accentuated in young adulthood and the college environment. As a result, colleges are challenged in meeting the need and demand for services that range from counseling to crisis management. Solutions call for coordinated and proactive approaches to behavioral health, including the creation of integrated systems of student mental health and counseling services with more than one portal to meet increased, diverse needs; and the establishment of a comprehensive, coordinated plan for suicidal crisis response involving resources both on campus and within the local community.

Scope of the Problem

Mental health issues are common among college students. According to a 2016 American College Health Association survey, 37 percent of students reported feeling so depressed within the last 12 months that it was difficult to function, and 21 percent felt overwhelming anxiety.[2] The 2014 National Survey on Drug Use and Health (NSDUH) found that 20.2 percent of full-time college students ages 18 to 22 reported any mental illness in the past year, and 4.4 percent reported serious mental illness in the past year.[3] In addition, 10.5 percent of full-time college students this age reported at least one major depressive episode (MDE) in the past year.[4]

Female college students are much more likely than male students to report any mental illness (24.6 percent versus 15.4 percent).[5] The female/male difference is also apparent when comparing rates of serious mental illness (5.6 versus 3.1 percent) and of MDE (13.6 versus 7.1 percent).[6] It is worth noting that women have been found to be more likely than men to acknowledge such problems and to seek professional help.[7]

Substance Misuse Connection

The link between substance misuse and mental health issues is well established. The 2015 NSDUH shows that adults ages 18 or older with past-year mental health issues were more likely than other adults in that age group to have used illicit drugs in the same period (32.1 versus 14.8 percent),[8] to have engaged in drinking in the past month (8.6 versus 6.7 percent)[9], to have smoked cigarettes (31.6 versus 18.7 percent),[10] and to have illicit drug or alcohol disorders (18.6 versus 5.8 percent).[11]

Similar links exist between depression and substance misuse. Adults ages 18 or older with MDE in the past year were more likely than those without MDE to have used an illicit drug (34.4 versus 16.6 percent),[12] to have smoked cigarettes daily (19.8 versus 11.8 percent),[13] to have used alcohol heavily in the past month (9.4 versus 6.9 percent),[14] and to have had a substance use disorder in the past year (20.8 versus 7.1 percent).[15]

The risk of substance misuse as a companion of mental health issues is especially pronounced among college students as they negotiate a tricky transition from adolescence to adulthood, an age when mental health issues often surface for the first time and in a new environment where substance use is common. College-age individuals are especially vulnerable to mental health issues, in part because many such problems first emerge in the late teens or early twenties.[16] Drug misuse and mental health counselors confirm that students who seek mental health treatment often report symptoms of substance misuse, while college students who use alcohol or other drugs often display signs of depression or anxiety.

Seeking Help

Many students are aware of the stress, anxiety, or depression they experience. However, it is important to emphasize the importance of seeking help and to provide information on where to access resources and services.

More college students are seeking mental health services on campus. A 2014 survey of college counseling directors showed that 11 percent of enrolled students sought counseling in the past year. Students with serious psychological disorders made up 52 percent of students who came to college counseling centers, up from 44 percent in 2013.[17]

Increased demand for mental health services may reflect the fact that more students already diagnosed with mental health disorders are going to college.[18] A survey of students seen for mental health services at 66 college counseling centers found that prior to college, 10 percent of these students had used psychiatric medications, 5 percent had been hospitalized for psychiatric reasons, 11 percent had seriously considered suicide, and 5 percent had attempted suicide.[19] College counseling center directors reported that 26 percent were taking psychiatric medication, a rate that rose from 9 percent in 1994.[20]

There may be an increased need for services due to the diversity of today's college students. Students of color, international students, lesbian, gay, bisexual, and transgender students, and other minority groups may face cultural tensions and discrimination. Older students may experience financial pressure and the stress of interrupted careers and life transitions.[21] In 2011, many colleges and universities announced significant increases in their tuitions, adding to financial pressure on current enrollments, college-bound younger people, and their families.

Access Issues

Research has shown that students who are mentally distressed are more likely to know about services and to use them. However, some students who reported mental distress did not know about services, or knew

about services but did not use them. Students living off campus, males, and those having spent fewer years in college were less likely to know about campus mental health services. Female students and students with more years of college experience were more likely to use mental health services.[22]

Some students may be afraid to seek certain types of help for a mental health issue. For example, they may fear requesting accommodations for their illness because professors could view them as incapable, and students may fear that they will be expelled from school.[23] However, without accommodations, their performance may be negatively affected.

Cultural factors, such as ethnic/racial social norms and past experiences within one's community, may restrain some students from seeking help for a mental health issue. A variety of studies show that ethnic minority college students may have fewer indirect experiences with help-seeking, such as knowing family members or close friends who have sought professional psychological services; may perceive on-campus psychological services as irrelevant and not culturally competent; and may not perceive health service utilization as an established cultural practice.[24] According to one study, among African-American college students, negative family norms about mental health were the driving factors related to limited help-seeking. Furthermore, negative peer norms influenced help-seeking among African-American males specifically.[25] Other research suggests that Asian cultural norms and the belief that seeking professional psychological services translates into a sign of weakness and shame upon one's family have also negatively affected Asian-American college students' willingness to utilize campus help services.[26,27]

A campus' action to clear the path to mental health services may include a publicity campaign to reduce the negativity associated with seeking help for mental health issues, to educate the campus community about the warning signs of mental health issues, to demonstrate understanding of different ethnic/racial social norms and needs, and to raise awareness of the resources on campus and in the surrounding community.[28] Putting the student counseling center in an area with other common services can help students feel more comfortable with seeking on-campus services.[29]

There may be added reluctance or shame attached to seeking help from community services. As a result, students are more likely to get help if it is available on campus. A solution when campuses do not have sufficient behavioral health capacity is to have a mental health or addictions professional from the community work on campus directly with students. In addition to helping students, such a professional can provide education and support to staff and counselors who deal with student mental health issues.

Identifying Problems

In addition to increasing awareness of mental health services and making them more accessible, more proactive efforts to identify students with problems are vital. Screening can be administered as part of the first-year orientation, when health-related information is collected about students, and when students visit the student health center for primary care. Web-based screening provides an ongoing and convenient way for students to screen themselves or to identify another student who may need help. It also can put students into direct contact with clinicians.[30]

In addition to formal screening, colleges may prioritize making the entire campus community, including faculty, residence life staff, and primary care providers, skilled in identifying people at risk.[31]

Meeting Demand

College counseling centers cannot meet all of the needs they encounter. In addition to streamlining their processes and expanding their capacity, many college counseling centers have strengthened their external referral networks, but some have unavoidably trimmed the type and timeliness of their services. According to a 2014 survey conducted by the American College Counseling Association, 14 percent of clients were referred to a psychiatrist for further evaluation.[32]

College mental health centers may be understaffed and in need of more sophisticated training in assessment, diagnosis, treatment, and management of students with major psychiatric disorders and dysfunctions. Four-year colleges and universities are more likely to have access to licensed clinicians, but community colleges and two-year institutions often rely on nurses to provide most health services. This means that building working relationships with community mental health providers is important, although reliance on them may strain local services that are oriented to low-income and working populations.[33]

Meeting increased student demand for help—especially because the demand is driven by an array of conditions such as depression, bipolar disorder, schizophrenia, and substance misuse and prompted by various academic situations, personal experiences, and perspectives—requires an integrated system of student mental health and counseling services with more than one portal.

Structural approaches include putting counseling, academic support, and mental health services under the same organizational umbrella; developing a comprehensive health and well-being plan focused on mental health issues, including mental health promotion; and establishing a central office or official in a campus life entity to organize and track campus statistics in the area of mental health care. Developing such a plan is enhanced by giving members of the community opportunities to make comments and suggestions through surveys, focus groups, and interviews.[34]

Penn Resilience Training for College Students
University of Pennsylvania

The Penn Resilience Training for College Students program is a cognitive therapy-based prevention program for college freshmen who are at risk for depression. The goal of the program is to promote positive coping and problem-solving skills by raising students' awareness of negative and automatic thinking patterns, teaching them to challenge negative thoughts, and allowing them to practice stress management strategies. Students attend one- to two-hour weekly group sessions for an eight-week period and also receive one-on-one attention from trained cognitive specialists. Two randomized controlled trials of this program showed that compared to the no treatment group, the intervention group experienced significant decreases in depression and anxiety symptoms, a higher sense of well-being, and higher scores on more positively-toned thinking; and resulted in sustainable positive effects (NREPP, 2007; PSU, 2011).

Colleges may conceive and frame proactive and comprehensive mental health activities under the concept of a caring university or a culture of caring.[35,36] Such an approach may take the form of policies to ensure the well-being of all members of the college community. These policies may focus on student behaviors that are erratic and disruptive to the mission of the college and the safety of its members as well as suicidal or self-injurious threats or behaviors. Action including assessment, treatment, and/or disciplinary sanctions may be taken through a unit representing campus entities such as student services, academic affairs, and the counseling services.[37]

At the Substance Abuse and Mental Health Services Administration's (SAMHSA) Mental Health on Campus dialogue meeting, student mental health consumers and college representatives identified attitudinal, cultural, and systemic barriers to mental health and developed a set of recommendations to overcome them. Specific recommendations were made in three areas:[38]

- Improving campus culture—focusing on discrimination, trust, respect, dignity, sensitivity and cultural competency;
- Improving access to information—focusing on the information needed, and communication and dissemination practices; and
- Managing expectations of campus mental health systems and changes to promote mental health and recovery on campus—focusing on student control and choice, mental health care expectations, administrative expectations, accommodations and policy, community approaches, and SAMHSA actions.

Suicide

Among full-time college students ages 18 to 22, 7.7 percent had serious thoughts of suicide in the past year, 2.4 percent planned suicide, and 1.2 percent attempted it.[39] Approximately one-third of the students who attempted suicide received medical attention as a result.[40]

According to a report from the SAMHSA-supported Suicide Prevention Resource Center (SPRC), graduate students have the highest rates of suicide among students in undergraduate and graduate programs, and women in graduate school are at greatest risk. Older students who are returning to school after being out for a significant period appear to have the highest rates overall. Graduate students may experience more stress than undergraduates, including increased financial burdens, concern about time away from careers and being out of the workforce, and uncertainty about the future job market.[41]

Some undergraduate and graduate student populations are at greater risk for attempted or completed suicide than the student population overall. SPRC points out that limited data indicate that adolescents who are lesbian, gay, bisexual, or transgender (LGBT) are more likely than their non-LGBT peers to experience suicidal ideation and attempts. These youth also report higher rates of victimization, being threatened, and engaging in substance misuse. The Center cites studies finding that young gay and bisexual males are 14 times more likely to report a suicide attempt than straight males in their age group. SPRC suggests that LGBT students transitioning into college may bring their suicidal behavior with them, and urges campuses to provide a positive, safe, and su pportive environment for LGBT students.[42]

Although self-reported symptoms of depression and mental distress are much more widespread than either suicide or suicide attempts, almost all college students who seriously consider suicide say that, at least once in the previous year, they felt so sad that they could not function and that they felt hopeless. Students who seriously consider suicide also are more likely to use alcohol, tobacco, and illicit drugs.[43]

Crisis Management

The ability to respond appropriately to a suicidal crisis is a challenge for many colleges. Doing so requires a plan that is comprehensive, coordinated, and collaborative. However, counseling staff may not be trained in crisis intervention. Moreover, full-time emergency counseling may not be available on campus and psychiatric services may be lacking entirely. As a result, mental health emergencies may be handled by campus security or administrators rather than trained clinicians or healthcare providers. Likewise, local emergency rooms may not have full-time psychiatric coverage, and students who are taken there may return to campus without being seen by a mental health professional.[44]

Following a mental health crisis, students may be asked to take a medical leave of absence with the idea of returning after they have stabilized. However, lack of appropriate mental health care in their home communities and lack of strong systems or policies in place to help them return to school can end their college careers.[45]

Campus Connect
Syracuse University

Campus Connect is a three-hour suicide prevention gatekeeper training program for college faculty and students that is designed to enhance participants' knowledge, awareness, and skills concerning college student suicide. Participants learn through experiential exercises and discussion how to interact with suicidal students and overcome obstacles that often leave such students in crisis, feeling misunderstood, and dismissed. Syracuse University also offers a six-hour train-the-trainer course to colleges interested in implementing the Campus Connect training on their own campus. More than 75 additional campuses are currently replicating this model. Comprehensive evaluation of this program has shown the consistent and significant improvement in resident advisor suicide intervention skills. The Campus Connect program is also included within the SPRC Best Practices Registry (SPRC, 2007; SU, 2012).

For more information about the Campus Connect program, visit http://counselingcenter.syr.edu/campus_connect/connect_overview.html.

Components of Quality Programs

The National Mental Health Association and The Jed Foundation identify the following as elements of a quality suicide prevention program:[46]

- Screening programs;
- Targeted education programs for faculty, staff, and residence assistants;
- Broad-based, campus-wide public education;
- Educational programs and materials for parents and families;
- Off-campus referrals;
- Emergency services;
- Postvention programs;
- Medical leave policies;
- Stress reduction programs;
- Nonclinical student support networks;
- Onsite counseling centers; and
- Onsite medical services.

SPRC added the following components:[47]

- Leadership to promote mental health and suicide prevention;
- Life skills development;
- Restriction of access to common means of suicide;
- Social marketing; and
- Social network promotion.

SPRC also states that "culturally appropriate health and mental health services may not be available on campus or in the community…It is essential that campus mental health staff understand how culture may influence students' orientation to mental health and well-being." This is particularly relevant when working with students who are members of traditionally underserved populations, such as particular ethnic/racial groups or the LGBT community.

Facts

- Smaller colleges are more likely to have integrated centers for counseling and health services, although these arrangements may reflect using integration to fulfill otherwise unmet needs.[48]
- Young gay and bisexual males are 14 times more likely to report a suicide attempt than straight males in their age group.[49]
- Approximately one-third of full-time college students who attempted suicide received medical attention for it. [50]
- Increased academic distress among college students—as measured by academic-related factors such as level of enjoyment of classes, level of motivation, ability to concentrate, and level of academic confidence—is directly related to increased severity of suicide-related thoughts and behaviors.[51]
- According to the American College Health Association, 14.3 percent of students attending two-year and four-year undergraduate and graduate institutions reported being diagnosed or treated by a professional for anxiety and 12.0 percent were diagnosed or treated for depression in the past 12 months.[52]
- Measures of suicidality were twice as high among students who reported that they were questioning their sexual orientation than among heterosexual students, and significantly higher than among nonquestioning gay, lesbian, and bisexual students.[53]

*For anyone in suicidal crisis or experiencing emotional distress, help is available through the National Suicide Prevention Hotline at **1–800–273–TALK (8255)**.*

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