SPRC
SUICIDE PREVENTION RESOURCE CENTER

Promoting Mental Health and Preventing Suicide in College and University Settings

EDC   SAMHSA

Acknowledgments

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Introduction

The National Strategy for Suicide Prevention's Objective 4.3 calls for increasing "the proportion of colleges and universities with evidence-based programs designed to address serious young adult distress and prevent suicide" (U.S. Department of Health and Human Services [DHHS], 2001, p. 66). Among college-age youth (20–24 years) in the United States, suicide is the third leading cause of death (Centers for Disease Control and Prevention [CDC], 2003).

Homicide is the second leading cause of death among college-age youth. However, risk for homicide is much lower among college students compared to the general population of similar age. To date, no studies of death among college students allow a comparison between homicide and suicide as causes, yet many people concerned about suicide prevention believe that suicide is likely the second leading cause of death, with an estimated 1,088 suicides occurring on campuses each year (National Mental Health Association [NMHA] & The Jed Foundation [JED], 2002). Approximately 12.5 million college and university students attend more than 3,400 schools in the United States (Brindis & Reyes, 1997). Campus counseling centers have reported increased demand and shifting needs of students seeking counseling services (Kitrow, 2003). Data about the prevalence of depression and suicidal ideation among college students (e.g., Furr, Westefeld, Gaye, McConnell, & Marshall, 2001), several high profile campus suicides, lawsuits related to on-campus suicides (Lake & Tribbensee, 2002), and media coverage of college suicides have highlighted the need for comprehensive, multifaceted efforts to promote mental health, provide mental health services, and prevent suicides at colleges and universities.

Although the suicide rate of college students is only about half the national rate for a sample matched by age, gender, and race (Silverman, Meyer, Sloane, Raffel, & Pratt, 1997), suicide and attempted suicide are the tip of the iceberg of a larger mental health and substance abuse problem among college students. A national survey of college counselors found that 84 percent perceived an increase in students with more serious psychological problems over the past five years (Gallagher, 2002). Almost 16 percent of college women and 10 percent of college men report having been diagnosed with depression at some time in their lives (American College Health Association [ACHA], 2001). Forty-four percent of students surveyed at four-year colleges reported drinking heavily during the two weeks prior to the survey (Wechsler, Lee, Kuo, & Lee, 2000). These problems have significant implications for students' lives, academic performance, and behavior.

This paper, produced by the Suicide Prevention Resource Center (SPRC) at Education Development Center, Inc. (EDC), summarizes what we know about suicide and suicide prevention among college and university students, describes a sample of current suicide prevention efforts, and recommends ways in which colleges and universities can promote mental health and prevent suicidal behavior among their students.

Suicide Among College Students

Epidemiological health surveys often fail to accurately gauge the extent of mental health problems among college students, both undergraduate and graduate (Patrick, Grace, & Lovato, 1992). This is largely because these students straddle the conventional age-reporting categories for adolescents and young adults (i.e., 15–19, 20–24, and 25–29 years of age). However, some current studies can shed light on the problem of suicide among college students.

Data collected by the Centers for Disease Control and Prevention (CDC) indicate that suicide emerges as a significant problem during the high school years, increases among young adults 20–24 years of age, and continues to increase marginally over the next two decades of life. For 2001, CDC (2002) reported the following suicide rates for young adults:

- 7.95/100,000 for the 15–19 year age group

- 11.97/100,000 for the 20–24 year age group

- 12.56/100,000 for the 25–29 year age group

- 12.89/100,000 for 30–34 year age group

(Note that these rates are for the general population, most of whom are not college students.)

The Big Ten Student Suicide Study (Silverman et al., 1997), undertaken from 1980 to1990 to determine the suicide rate on Big Ten campuses, was the most comprehensive report on the incidence of suicides in undergraduate and graduate school populations by age, gender, and race. The study collected demographic and correlational data on 261 suicides of registered students at 12 Midwestern campuses.

The Big Ten Student Suicide Study reported a rate of completed suicide for college students of 7.5/100,000. The largest number of suicides for both males and females was in the 20–24 year age group (46 percent) and among graduate students (32 percent). The overall student suicide rate of 7.5/100,000 was half the national suicide rate (15.0/100,000) for a sample matched by age, gender, and race.

Thirty-one percent of female and 25 percent of male students are in the 17–19 year age range. Yet this age range accounts for only 9 percent of the female suicides and 14 percent of the male suicides. Forty-eight percent of college females and 45 percent of males are in the 20–24 year age range, in which the suicide rate is more proportional, accounting for 49 percent of female suicides and 45 percent of male suicides.

The statistics shift dramatically for the older students. The Big Ten study revealed that students 25 and over (regardless of whether they are undergraduate or graduate students) had a significantly higher risk of suicide than younger students. Although women's suicide rates were roughly half those of men throughout the undergraduate years, women in graduate school died by suicide at rates not significantly different from their male counterparts (9.1/100,000 for women and 11.6/100,000 for men) (Silverman et al., 1997).

This suggests that the suicide rate among female students in their mid- to late-20s and older is higher than the national rate, and higher than the rate among female students of typical undergraduate age (18–23 years). The Big Ten data also suggest that the suicide rate for female college students is below the national rate during the first two years of college, about even during the junior and senior years, and above the national rate during graduate school.

Data obtained through the American College Health Association's Mental Health Annual Program Survey conducted during the 1970s found a remarkably similar rate of completed suicide of 7.53/100,000 (Schwartz, 1995). Silverman et al. (1997) found that college students completed suicide at approximately half the rate of peers (matched for age, gender, and race) who do not attend college. In another study, Schwartz (1995) found no differences between the rates of suicide at colleges rated in terms of selectivity, competitiveness, or prestige of the school.

The University of Maryland's College and University Counseling Center directors' data bank reported 163 suicides in 78 large and 85 small colleges (Magoon, 2000). These colleges had a combined population of approximately 1,730,000 students. Thus, the suicide rate for these schools is 9.4/100,000, somewhat higher than the rates reported in the data from the previous two studies. However, this reporting system is not as epidemiologically rigorous as that of the Big Ten Suicide Study.

Furthermore, as discussed above, suicide is the tip of an iceberg of mental health issues. Studies point to serious mental health problems among college students. A research consortium of 36 counseling centers estimated recent increases in anxiety, fear, and worries, as well as dysfunctional behavior including eating disorders, alcohol and substance abuse, and anger/hostility among college students. These studies also reported increases in the impact of violence, family dynamics, depression, and bipolar disorder (as reported by Louise Douce, Ph.D., to the Subcommittee Hearings for the Campus Care and Counseling Act, April 28, 2004).

There is clear evidence of increased incidence of depression among college-age students. Researchers at Kansas State University conducted a 13-year study (1989–2001) of 13,257 students who sought help at a large Midwestern university counseling center. They found that "students experience more stress, more anxiety, and more depression than a decade ago. Some of these increases were dramatic. The number of students seen each year with depression doubled, while the number of suicidal students tripled, and the number of students seen after a sexual assault quadrupled" (Benton, Robertson, Tseng, Newton, & Benton, 2003, p. 69).

Other researchers have also noted "that high levels of psychological distress among college students is significantly related to academic performance. Students with higher levels of psychological distress are characterized by higher test anxiety, lower academic self-efficacy, and less effective time management of study resources" (Brackney & Karabenick as cited in Kitzrow, 2003, pp. 171–172). Studies have found that "mental health problems may also have a negative impact on academic performance, retention, and graduation rates" (Kitzrow, 2003, p. 171).

High-risk alcohol use and other drug use also take a toll on student health and academic performance. The Harvard School of Public Health College Alcohol Study Survey (Wechsler et al., 2000) found that 44.4 percent of college students describe themselves as binge drinkers. The National Institute on Alcohol Abuse and Alcoholism (2002) reported that 1,400 college students die each year from alcohol-related injuries and that alcohol abuse is associated with diminished academic performance. But studies also have shown that intervention can have an impact upon these issues. The retention rate for students who received counseling was 14 percent higher than for students who didn't receive counseling (Kitzrow, 2003).

Suicidal Behavior Among College Students

Suicide has been described as the end of a continuum that begins with suicidal ideation, continues with planning and preparing for suicide, and ends with threatening, attempting, and completing suicide (Kuchar, Potter, Powell, & Rosenberg, 1995). Although some young people make impulsive attempts, many more have suicidal thoughts and engage in behaviors along this continuum before attempting suicide or without ever attempting suicide.

Although some researchers believe that attempted suicide may be a phenomenon separate from completed suicide, there are risk factors in common. A history of suicide attempts is statistically correlated with an increased risk for further attempts that may result in death. Thus, professionals seeking to prevent suicide focus on groups and individuals with an increased risk for suicide, particularly those reporting suicidal ideation, intent, plans, and prior attempts, as well as symptoms of depression.

Surveys of self-reported behaviors along the suicide continuum (not including completed suicides) are one method used to define suicide risk. In 1995, CDC conducted the first National College Health Risk Behavior Survey (NCHRBS) among a representative sample of about 5,000 undergraduate students in both two-year and four-year institutions (CDC, 1997; Brener, Hassan, & Barrios, 1999). This study revealed that 10.3 percent of respondents reported seriously considering attempting suicide during the 12 months preceding the survey. Students who had seriously considered suicide were also more likely to report use of alcohol, tobacco, and illegal drugs. Furthermore, 6.7 percent of students surveyed reported that they had made a suicide plan and 1.5 percent reported that they had attempted suicide one or more times in the previous 12 months. Only 0.4 percent reported that their suicide attempts required medical attention.

The spring 2000 National College Health Assessment (NCHA), conducted by the American College Health Association (ACHA), measured depression, suicidal ideation, and suicide attempts (and other health indicators) among 15,977 college students on 28 campuses (ACHA, 2001). Its findings were comparable to those from the NCHRBS. The NCHA found 9.5 percent of its respondents had seriously considered suicide and 1.5 percent had attempted suicide within the past school year. One-half percent of those who reported suicide attempts reported that they had made attempts on three or more occasions. Another small study of depression and suicidal ideation on college campuses found that about 9 percent of students reported thinking about attempting suicide (Furr et al., 2001).

Self-reported symptoms of depression and mental distress are much more widespread than either suicide or suicide attempts (ACHA, 2001). Of the NCHA respondents, 61.6 percent felt "hopeless" at least once during the past school year; 33.4 percent reported experiencing "hopelessness" three or more times during that period; 44.4 percent felt "so depressed it was difficult to function;" and 22.1 percent reported feeling this way on three or more occasions during this period.

Among students who seriously considered suicide, 94.8 percent reported that, at least once in the previous year, they felt so sad that they could not function and 94.4 percent reported feeling hopeless. Only 23.8 percent of students who reported feeling hopeless and 33.4 percent of those who reported feeling depressed seriously considered suicide (ACHA, 2001). Thus, while feeling depressed, unable to function, and/or hopeless does not necessarily mean that a student is seriously considering suicide, feeling suicidal often includes depression and hopelessness.

The relationship of suicide, depression, and other mental illnesses to the abuse of alcohol and other drugs should be given serious attention. An analysis of data from the NCHRBS found that students who reported suicidal ideation were significantly more likely than other students to carry a weapon, engage in a physical fight, boat or swim after drinking alcohol, ride with a driver who had been drinking alcohol, drive after drinking alcohol, and rarely or never use seat belts (Barrios, Everett, Simon, & Brener, 2000).

Factors That May Contribute to Suicidal Behavior Among College Students

Major life transitions—such as leaving home and going to college—may exacerbate existing psychological difficulties or trigger new ones. Moreover, leaving family and peer supports to enter an unfamiliar environment with higher academic standards can deepen depression or heighten anxiety.

A number of recent articles in the lay and professional press have drawn attention to the growing number of students with serious psychological problems and the increase among those seeking counseling on campuses (Kitzrow, 2003; Voelker, 2003; Berger,

2002; Caulfield, 2000). While we await a science-based explanation, the following have been suggested as driving the increased demand for services:

- Better assessment, intervention, and management of psychiatrically ill adolescents during high school, allowing them to further their educations

- Decreased stigma associated with mental illness and help-seeking on college campuses

- Increased accessibility of health services on college campuses

- More limited payments by third-party and managed care health insurance plans for private treatment outside of network areas, resulting in increased reliance on campus health services to treat chronic conditions

- Better assessment and referral of students by college faculty and staff

Some researchers suggest that college campuses may inadvertently contribute to the development and exacerbation of students' stress disorders—including suicidal behaviors—that are consequences of perceived or real stress (Seiden, 1971). These researchers suggest that parental pressure to succeed and economic pressure to successfully complete a course of education and training in a shorter period of time also increase stress.

The Big Ten Student Suicide Study suggests that graduate students have the highest rates of suicide and that women in graduate school are at greatest risk. It appears that older students who are returning to school after being out of school for a significant period have the highest rates overall. Many female graduate students fall into this category.

Graduate students may experience more stress than undergraduates (Silber et al., 1999). Some additional stressors in graduate school include the following:

- Mounting financial burdens

- Worries about time away from careers and being out of the workforce

- Uncertainties about the future job market (particularly for those pursuing research and academic careers)

Working with Special Populations

Efforts to promote mental health and prevent suicide in colleges and universities must respond to the needs of each campus and its student population. The increasingly diverse atmosphere of higher education campuses presents challenges for preventing suicides and meeting the mental health needs of students. In the 1980s, the number of U.S. high school students declined, and colleges and universities began recruiting nontraditional students, focusing on graduate, older, and international students (Brindis & Reyes, 1997). In addition, gay, lesbian, bisexual, and transgender students are increasingly visible on campuses as social stigma against homosexuality has diminished and gender roles have relaxed. It appears that the trend towards older and more diverse student populations will continue, and campuses and their surrounding communities must be sensitive to the special circumstances and needs of these students.

Most schools have an administrator who oversees programs for special populations and minorities. This administrative staff person and perhaps student representatives from key groups must be involved in the planning and implementation efforts for mental health promotion and suicide prevention. Characteristics of the student population must be considered, along with the barriers (and opportunities) that these characteristics might provide for suicide prevention and mental health promotion.

Commuter Students

Community and two-year colleges are likely to serve the greatest numbers of commuter students. These institutions also have fewer resources to meet the health and mental health needs of students. Community and two-year college health services are more likely to be provided by a nurse and supported solely by student health fees (Brindis & Reyes, 1997). Therefore, they rely heavily on community health and mental health resources. While schools in large metropolitan areas have a wide range of health and mental health referral options, rural campuses have very limited referral resources available.

Commuter campuses tend to have a greater percentage of students who are part-time, older, and working, who have children or other care giving responsibilities, who live at home with parents, rarely identify with the school, and have little "school spirit." Commuter schools are often more like workplaces than college campuses, and students may only appear on campus for classes and to use the library, and are thus difficult to reach with school-based programming. There is no sound information about suicide rates among these students and little to no information about efforts to promote mental health or prevent suicide in these types of schools.

Older Students

The Big Ten study indicated that students 25 and over (undergraduate or graduate) had a significantly higher risk of suicide than younger students. While male suicide rates are higher than female rates in the general population, female graduate students have suicide rates close to their male classmates (9.1/100,000 for women and 11.6/100,000 for men). While only 10 percent of female college students and 14 percent of male college students fall into the 25–29 year age range, they account for 22 percent of the female suicides and 23 percent of the male suicides. In fact, 39 percent of all female suicides occur among graduate students, who comprise only 19 percent of all female students (Silverman et al., 1997).

This suggests that the female graduate student population has greater risk for suicide compared to the female undergraduate population. Older female students who may be returning to college later in life also appear to be at greater risk relative to the typical undergraduate population. Relatively higher rates of suicide were also seen for older male students (ages 35–39 and 45–49). This indicates the need for targeted suicide prevention efforts for older students—especially for those over 30.

Both male and female older students can be harder to reach through the usual campus care resources and face different pressures than the typical college-age population. Older students are more likely to commute instead of live on campus. If they have left the workforce to return to school, they may experience a loss of status and increased anxiety about this 'time out' from their careers (Silverman, 2004). Those attending school part-time while still working might suffer stress from competing responsibilities. They are more likely to have partners and/or dependents who may also need services. If they are returning to school after an absence of several years, they may find the academics more demanding than anticipated.

Returning to school appears to be a major stress on older undergraduate and graduate students alike. Both types of students must make major life transitions and accommodations in pursuit of education and training. The financial and personal investment coupled with the sacrifices made to return to school may place these students at increased risk for suicidal behavior (Silverman et al., 1997).

As students age, they may perceive academic experiences differently and respond to challenges and stresses with different strategies and coping mechanisms. Even if all the resources traditionally available on university campuses remain constant for all students, older students may access them differently—or not at all. Universities might well consider developing new and targeted intervention programs for older students at both undergraduate and graduate levels.

Gay, Lesbian, Bisexual, and Transgender Students

While it can be assumed that gay, lesbian, bisexual, and transgender (GLBT) students have always been part of colleges and universities, their presence has become increasingly visible as social stigma and barriers against homosexuality have lessened and gender roles have relaxed. There is no concrete information about suicide rates among gay, lesbian, and bisexual (GLB) college students and little to no information about efforts to promote their mental health or prevent suicide. There is even less information about the behavior and needs of transgender students, though we can assume they face somewhat similar risks.

Despite widespread belief that GLB youth have higher suicide rates, until recently there was only anecdotal information about this population. Information cannot be drawn from death certificates, and psychological autopsy studies involving interviews of the subjects' family and peers would not identify homosexuality or bisexuality unless the subjects were open about it prior to their suicides. Since much of what is known about GLB youth in the past came from studies of youth who presented at sexually transmitted disease clinics or programs for runaway and homeless youth, the belief that GLB youth had a greater tendency to suicidal behavior may have grown from a skewed sample of subjects.

However, in the 1990s data on high school students added to the evidence indicating an elevated risk for suicidal behavior among GLB youth compared to youth who do not identify themselves as GLB. The CDC's Youth Risk Behavior Survey (YRBS)

began including questions about suicidal behavior in the 1990s, and Massachusetts incorporated statewide questions on sexual orientation for all YRBS participants. The Massachusetts YRBS data indicated that GLB students were more likely to have experienced suicidal ideation and attempts, with 35.3 percent of GLB respondents reporting suicide attempts in the past 12 months compared with 9.9 percent of their peers (Garofalo, Wolf, Kessel, Palfrey, & DuRant, 1998). GLB youth were also more likely to have been victimized and threatened, and to have multiple experiences with using one or more substances (Garofalo et al., 1998). The risks appear greater for gay or bisexual males than for lesbian or bisexual females. Other studies in the United States and Canada report that young gay and bisexual males are 14 times more likely to report a suicide attempt than their straight peers (Tremblay & Ramsay, 2000).

GLB students who transition from high school to higher education may bring some of the same suicidal behavior to their new environment. One study attempted to measure the suicidal risk among a small sample of GLB college students compared with a sample of their heterosexual peers (Westefeld, Maples, Buford, & Taylor, 2001). Researchers administered a paper and pencil assessment of suicidal risk called the College Student Reasons for Living Inventory (CSRLI). GLB students were more depressed, lonelier, and had fewer reasons for living than a control group of their peers, and depression and loneliness correlated positively with suicidal tendencies. In addition, GLB students in this study experienced prejudice and related issues (Westefeld et al., 2001).

Many campuses are increasingly open to and supportive of inclusion of GLBT students, but homophobia remains a problem. Promoting a positive environment that includes gay, lesbian, bisexual, and transgender students, staff, and faculty can go a long way towards supporting the mental health and well-being of GLBT students. Wellness programs can incorporate education that promotes positive attitudes towards homosexuality, bisexuality, and gender minority status. Campuses need to ensure student safety in residence halls and in the classroom by being accepting of all students.

International Students

The number of international students studying at U.S. colleges and universities has grown steadily since the 1950s. The Institute of International Education reports that 582,996 students from at least 186 countries attended an American college or graduate school in 2001 (Misra & Castillo, 2004).

While all students experience academic and personal pressures, international students face particular academic and social challenges that increase their potential for stress. International students in the United States tend to be among the top students in their countries of origin, yet if English is not their native language they may have unanticipated academic difficulty (Mori, 2000). They may experience isolation, being far removed from their traditional social supports including friends and family—possibly for the first time.

International students also face added financial pressure. There are fewer sources of financial aid available to non-U.S. citizens, and they are generally prohibited from

working outside of the school they attend (Mori, 2000). Students struggling to support themselves and their studies may feel they cannot afford a supplemental health insurance plan and must rely on campus health services. International students often fail to understand the U.S. system of health care coverage and reimbursement, and usually have no health insurance from their home country. Fee-based community health and mental health providers may be reluctant to accept them as clients, knowing they cannot collect on a debt if the student leaves the country.

Culturally appropriate health and mental health services may not be available on campus or in the community. Since the stigma of mental illness is greater in many countries than it is in the United States, culture may be an added barrier to students accessing mental health services (Yi, Lin, & Kishimoto, 2003). It is essential that campus mental health staff understand how culture may influence students' orientation to mental health and well-being.

Insurance Coverage and Access to Mental Health Care

About 80 percent of college and university students attend schools that offer some direct health care, and students visit student health centers between 20 and 25 million times annually (Brindis & Reyes, 1997). Financing of student health care varies according to the type of school. Four-year colleges and universities tend to support health services through a combination of funds from the school's general fund, grants and gifts, direct student payments, and fees (either a student affairs fee or separate health services fee). Community college health services are more likely to be supported solely by student health fees (Brindis & Reyes, 1997).

Virtually all colleges and universities that offer student health and mental health services charge fees to support these services. Theoretically, this ensures that all students have access to health services and parity is not an issue as long as the student is enrolled. Yet many medical procedures are not usually covered by student health services without supplementary insurance coverage, including the following:

- X-ray, imaging, and scanning
- Prescription medication
- Emergency department visits and emergency treatment
- Specialty medical consultations (psychiatry, orthopedics, obstetrics/gynecology, dermatology)
- Diagnostic blood tests
- Toxicology screening
- Hospitalization and related costs
- Surgery
- Private psychotherapy

Between 5 and 25 percent of students seek mental health services from their campus counseling centers. This range reflects the schools' population and the availability of

mental health services in surrounding communities. Graduate students utilize mental health services significantly more than undergraduates, so schools with a greater percentage of graduate students are likely to have a greater demand for campus counseling services. Schools located in communities rich in mental health resources may experience less demand for campus-based services (Brindis & Reyes, 1997).

While basic student health services are usually available without restriction, campus mental health benefits tend to be limited to a specific number of annual visits. Students in crisis may receive extended counseling services, but long-term psychiatric care of students within a student mental health clinic setting is the exception rather than the rule. This poses challenges for students with more serious mental health problems who may be more prone to suicide.

It is estimated that 18 to 24 year olds are the largest uninsured population in the United States (Molnar, 2002), though not all in this age group are students. Only 40 percent of schools require students to provide proof of insurance coverage (Brindis & Reyes, 1997). Colleges and universities strongly encourage students to carry sufficient third-party insurance plans to cover procedures not included through the student health services fee. Younger students may be eligible for coverage under their families' health insurance policies. But most insurers exclude students over a certain age (23–25) from their parents' policies, and some exclude students as young as 18. Students are also generally ineligible for participation in public medical assistance programs.

Students usually qualify for coverage through their schools' supplemental insurance plans. Schools contract with third-party insurance companies to offer "student health insurance" that covers most, but not all, additional medical expenses students may encounter. Cost of coverage is based on actuarial tables for the demographics of each campus and on past insurance claims and experiences. Though not inexpensive (some plans cost thousands of dollars annually if a student elects spousal or family coverage and is pregnant or anticipates a pregnancy), they are designed to cover most medical costs. However, students with pre-existing conditions (including mental illness) and those who have attempted suicide may be deemed 'high risk' and therefore excluded from student health insurance plans (Brindis & Reyes, 1997).

ACHA has developed standards for student health insurance programs. These standards include the following:

- Students are required to present proof of insurance as a condition of enrollment in school.
- An appropriate scope of coverage for mental health care should be included in health insurance programs.
- Benefits should be made available to all students regardless of age, gender, sexual identity, marital status, race, ethnicity, or physical or psychological disability (ACHA, 2000).

Unfortunately, most students—and their parents—do not purchase the college-sponsored supplemental health care insurance because of the expense, or under the

assumption that they will not need medical services, or because they believe their families' existing health insurance will cover them while at school, or because they don't qualify. Many students have no health insurance at all.

And even with health insurance, students may not be able to access mental health care. Deductibles, co-payments, and caps on mental health services can pose significant barriers. Privacy concerns may prevent students from accessing insurance benefits through their parents—they may not want their parents to know they are in counseling or on medication. And many health plans have waiting periods of up to nine months, during which enrolled participants cannot qualify for reimbursement.

Students covered by their parents' insurance may have only limited benefits if they attend school out of that insurer's care network. While most HMOs and managed care plans reimburse for out-of-network emergency room care, they generally do not cover in-patient medical or psychiatric treatment, or any medical procedures not deemed to be life-saving. Therefore, medications, any follow-up, monitoring after an emergency procedure, and hospitalization are not usually covered. Students requiring significant care may be forced to return home for ongoing services or monitoring. Their parents' health insurance may authorize students to be seen in the local campus community through an authorized care network, but this is the exception rather than the rule.

When campuses rely on community hospitals or local mental health centers to serve their students, the providers expect to be reimbursed for services. Students without insurance will be personally billed, and clinics and hospitals may not be able to collect on these debts—especially if a student leaves school or moves away (Molnar, 2002).

Consequently, students without insurance rely almost exclusively on the student health center resources. Campus mental health clinics face an increasing burden to see and monitor larger numbers of students for longer periods of time, while offering more intensive, specialized, and diverse services. They are subject to constant administrative pressure to locate low-fee referral services, provide free medication monitoring (when students are in private psychotherapy with a non-M.D. and on medication), provide free diagnostic testing, and provide long-term care for those students with the most severe psychopathologies and/or the gravest financial situations—while simultaneously containing costs.

Media Coverage and Suicide on Campuses

Any death of a college student can generate media coverage, and a suicide may result in sensational coverage in the campus or community media. Experts in suicide prevention believe that media coverage of suicide can increase the potential for imitation behavior or "contagion." The media reporting about suicide should take care to ensure that the coverage is responsible.

Reporting on Suicide: Recommendations for the Media was developed by government and private leaders in suicide prevention both in the United States and internationally

(CDC et al., 2001). According to these guidelines, suicide may increase under the following circumstances:

- When the number of media stories about individual suicides increases
- When a suicide is reported in detail or repeatedly (at the start of a broadcast or on the front page)
- When media reports of suicides are given dramatic headlines

The American Foundation for Suicide Prevention's (AFSP) Web site (www.AFSP.org) includes a section on media coverage of suicides. A number of examples of media coverage of college suicides on the AFSP site substantiate the potential significance of irresponsible reporting (American Foundation for Suicide Prevention [AFSP], 2001).

Reporting on Suicide: Recommendations for the Media acknowledges that suicide is newsworthy, but suggests story angles, interview tips, and characteristics of coverage that will minimize the risk of contagion (AFSP, 2001). Reporters may reduce the potential for imitation suicides by using the following recommendations:

- Specific information about the means of suicide should be excluded.
- Those who die by suicide should not be glorified.
- Stories should include information on whether the victim was ever treated for mental illness or involved with substance abuse.
- Reporters should be aware that most victims do exhibit warning signs, yet friends and relatives may not identify warning signs of suicide when interviewed.
- Referring to suicide in the headline should be avoided when possible.
- Suicide should be portrayed as a complex, multifaceted issue and not resulting from a single cause.

Prevention Strategies for College Campuses

A comprehensive approach to suicide prevention on college and university campuses should employ multiple strategies targeted at both the general campus population and identifiable at-risk populations (Surgeon General of the United States, 1999). Such a comprehensive approach will be more effective when it includes consistent and coordinated activities in all the social spheres in which the target audience (in this case, college students) live, study, work, and play. A coordinated approach needs to engage key players in the college community in a planning process that focuses on assessment, design, implementation, and evaluation of suicide prevention activities. The U.S. Air Force developed, implemented, and evaluated one such comprehensive, multifaceted effort to address suicide and promote mental health (Knox, Litts, Talcott, Feig, & Caine, 2003). This effort provides a sound basis for considering a similar, customized approach for college and university communities. Elements of a comprehensive suicide prevention program include leadership to promote mental health and suicide prevention, screening, crisis management, educational programs, mental health services, life skills development, means restriction, social marketing, and social network promotion (NMHA & Jed, 2002) (see Figure 1).

Figure 1

Jed/EDC Partnership Model: Elements of a Comprehensive Suicide Prevention Program for Colleges and Universities

Questionnaire/Screening

Goals:
- Identify high-risk and potentially high-risk students
- Provide landscape of mental health on campus
- Work proactively with identified students (through programs, treatment)

Lead: Admissions office or freshman dean with MHS and health service
Target: Students

Mental Health Service (MHS)

Goals:
- Train MHS providers to identify and treat depression, threats of suicide, and other emotional disorders
- Refer cases as appropriate
- Institute procedures (e.g., intake form)
- Enhance accessibility of MHS
- Engage in prevention & outreach activities

Lead: Suicide prevention experts
Target: MHS, community resources, local hospitals

Means Restriction

Goal: Limit access to potentially lethal means
Lead: Buildings & grounds, public safety, residential life, chemistry dept., athletic dept., alcohol & substance abuse office
Target: Entire campus community

Crisis Management

Goals:
- Establish policies and implement programs (including medical leave and re-entry) that respond to suicide attempts and high-risk behavior
- Respond with a comprehensive postvention program
- Create interface between disciplinary process and counseling/MHS

Lead: VP student affairs, MHS, disciplinary committee
Target: Students, gatekeepers (with implementation responsibility)

Promote Mental Health Awareness & Well-Being, Prevent Suicide

Goals:
- Coordinate and communicate across campus departments and organizations
- Develop and/or revise institutional policies and operating procedures
- Institute campuswide risk surveillance system, tracking all fatal & nonfatal self-injuries and safety- and health-related indicators (e.g., violent behavior, criminal activities, substance abuse)

Lead: President's office
Target: Entire campus community

Life Skills Development (Protective Factors)

Goals:
- Improve students' management of the rigors of college life
- Equip students with tools to recognize and manage triggers and stressors

Lead: VP of student affairs, deans of students, MHS, faculty & staff, advisors, residential life
Target: Students

Educational Programs

Goals:
- Train gatekeepers and students to (1) identify signs of individuals in distress, (2) take the steps that get them help
- Train personnel on confidentiality, notification, and legal issues

Lead: Provost, VP student affairs
Target: Students and gatekeepers (deans of students, faculty & staff, advisors, residential life, student gov't, student & Greek orgs., athletic dept., dining services, public safety, chaplainry)

Social Marketing

Goals:
- Stimulate campuswide cultural change that destigmatizes mental health, removes barriers, and encourages help-seeking behavior
- Target both high-risk students and general campus community

Lead: VP student affairs, deans of students, MHS, marketing dept., campus media
Target: Entire campus community

Social Network Promotion

Goals:
- Reduce student isolation and promote feeling of belonging
- Encourage the development of smaller groups within the larger campus community

Lead: Deans of students, faculty & staff, residential life, student gov't, student & Greek orgs., chaplainry
Target: Students

Systemic change requires leadership. Leadership from central college and university administrators is critical to generating significant and sustainable efforts on college campuses. College and university presidents need to commit to creating a comprehensive, systemic effort to promote mental health and prevent suicide if such an effort is to succeed.

Efforts to address alcohol abuse can serve as a model for how strong leadership can create positive changes on college campuses. With support from the Robert Wood Johnson Foundation, the Center for College Health and Safety established the Presidents Leadership Group (PLG) to recognize the important role college and university presidents serve in successful alcohol and other drug (AOD) prevention efforts on campus and in the community. PLG was created to bring national attention to campus AOD issues and highlight ways college presidents can serve as effective catalysts for change. In 1997, its first year, the six PLG founding members published Be Vocal, Be Visible, Be Visionary: Recommendations for College and University Presidents on Alcohol and Other Drug Prevention, a report that urged college presidents to become more active leaders.

The report included 13 proposals for effective prevention and identified specific steps presidents can take. In 1998, PLG produced a video to accompany this report. Since then, PLG has expanded its membership and activities, implementing a recruitment process that asks new members to participate in a set of activities, including the following:

- Providing support and leadership for existing statewide and regional initiatives
- Working with single-state substance abuse agencies to establish state-level funds earmarked for college AOD prevention
- Generating support for AOD prevention efforts among higher education officials
- Serving as advisors to other college and university presidents interested in AOD prevention
- Giving permission for their names and quotes to appear in ads that the Center places in magazines and newsletters
- Serving as spokespeople for the effectiveness of environmental prevention strategies, campus and community coalitions, and statewide and regional initiatives (Presidents Leadership Group, 1997).

A similar effort to engage campus administrative leaders around mental health promotion and suicide prevention programs would facilitate an expansion of these efforts to other colleges and universities.

Unfortunately, it is often difficult to identify individuals at greatest risk for suicidal behavior. Current screening techniques used for the general population lack the precision needed to identify those who will actually attempt or complete suicide. However, screening for specific disorders associated with suicide, such as depression or substance abuse, can identify those who are at risk so that they can be referred to appropriate treatment. A screening instrument might be administered at colleges and universities as part of the first year orientation and the collection of health-related information about students. A screening instrument might also be administered when students visit the student health center for primary care (Zygowicz & Saunders, 2003). Similar strategies are employed by TeenScreen (Shaffer et al., 2004) and other programs (Reynolds, 1991) among high-school-age youth.

However, implementing a screening program without access to professional services for persons who screen positive for risks is pointless. When screening for AXIS I DSM-IV diagnoses, these programs should be prepared to treat conditions identified, including eating disorders, post-traumatic stress disorder, alcohol and drug abuse, schizophrenia, anxiety and panic disorders, affective disorders, and developmental disabilities (including attention deficit/hyperactivity disorder, and emotional and learning disabilities). Very few college mental health centers have the personnel and/or programs in place to professionally respond to all these diagnoses.

A number of efforts provide screening services over the Internet. The Jed Foundation developed Ulifeline (www.ulifeline.org), a Web-based version of a validated Duke University Medical School screening instrument that provides a self-screening test with referrals for students who report risk characteristics. The Ulifeline screening tool allows students 24-hour, confidential screening for eight DSM categories including depression, eating disorders, drug and alcohol abuse, and other emotional disorders. Students can self-screen or use the site to identify friends who may need help and to link directly to their schools' campus mental health or health centers. It is being used at over 370 campuses and serves almost two million students.

AFSP is developing and pilot testing a Web-based screening effort at a small number of universities. Students are directed to a secure Web site to complete a Depression Screening Questionnaire that has been adapted from the Patient Health Questionnaire, a validated instrument for identifying depression and related problems. An experienced clinician reviews responses and sends a personalized, confidential assessment to the student's self-assigned user name on the Web site. Students whose responses suggest significant psychological difficulties are urged to meet with the clinician for an evaluation. A "dialog" feature on the Web site allows students to exchange messages with a clinician in advance of a face-to-face meeting. Then, at the initial meeting, students are referred for treatment if necessary. In addition to the Depression Screening Questionnaire data, AFSP is collecting follow-up data on students referred into treatment through the project as a measure of project effectiveness (Haas, Hendin, & Mann, 2003).

Crisis management is the capability to respond to a suicidal crisis appropriately and to provide support to persons affected by the loss of someone to suicide—survivors. Crisis management can take several forms. One strategy is providing services through crisis centers and hotlines through which trained volunteers and/or staff provide counseling and other services for suicidal persons. Such programs also may offer a drop-in crisis center and referral to mental health services. Some campuses find creating and maintaining crisis services challenging, although some schools have succeeded in these efforts (Ottens, 1984; Coulter, Offutt, & Mascher, 2003). Crisis management also requires that the clinical staff is equipped and trained to manage potentially and acutely suicidal persons. In addition to these services, colleges and universities need a comprehensive and coordinated collaborative plan to respond to a student suicide or attempted suicide. Schools should be prepared to implement outreach efforts in the event of a suicide or other traumatic death of a student (Webb, 1986).

Most university counseling centers do not have a 24/7 crisis management response system in place. In fact, the majority of counseling services do not have emergency walk-in hours during the day or staff members on call after hours or on weekends. Although most counseling services use a crisis intervention model for managing student emergencies and other crises, formal staff training in the basic theories, principles, and approaches to crisis intervention is usually lacking. University counseling centers usually lack psychiatric coverage, especially sufficient coverage to address the numbers of students who enter college already taking prescription psychotropic medications.

Mental health emergencies are often handled by campus security or college administrators in place of trained clinicians or health care providers. The local emergency room is often used for psychiatric assessments in evenings and or on weekends, when campus health services may be closed. Yet most local or community hospital emergency rooms do not have on-site psychiatric services available during these periods. If the student is not admitted to the hospital (which often lacks a separate psychiatric unit), he or she is escorted back to campus. If the crisis occurs on a weekend, the student will not be seen by a mental health professional until Monday morning. Since most university counseling centers lack a formal working relationship, or medical liaison, with the local emergency room or community hospital, confidentiality issues can impede responding to a crisis if the original assessment was made off-campus.

Many university counseling centers and administrative units did not start developing policies and procedures for dealing with behavioral problems such as disruptive students, physically threatening students, date rape, vandalism, murder, and suicide until the 1990s. Even today, campus counseling centers are just beginning to develop formal policy and procedure manuals that include sections addressing emergencies during the day, at night, and on the weekends. Disaster planning, in general, is also lagging on most college campuses.

Confidentiality issues, including those stemming from the Family Educational Rights and Privacy Act (FERPA) and Health Insurance Portability and Accountability Act (HIPPA) regulations, also have implications for the management of mental health

crises. Most college mental health professionals look to their university's general counsel for guidance. University counsels interpret these regulations differently, in often idiosyncratic ways fitting the general ethos and tenor of their college communities. The only area that seems to be unambiguous concerns situations in which there is a clear and imminent danger to self or others (often interpreted as when a student is suicidal or homicidal). However, there is no uniform definition for most suicidal behaviors, including suicide attempts.

Thus, whether a student's actions are to be considered "suicidal behavior" is often a judgment call—one that is often not made by a mental health professional, but by an administrator. The concepts of intent, lethality, and temporality can blur when assessments are done by one set of professionals and decisions about notification of parents, administrators, or others is left to another—especially those not trained in mental health. Despite some published recommendations and guidelines, each college and university generally addresses the issue of parental notification following suicidal behavior in its own way.

Longer-term follow-up to mental health crises on college campuses is also a problem. Many suicidal and behaviorally disordered students are asked to take medical leaves of absence, with the expectation that they will receive appropriate treatment prior to applying to return to campus. Unfortunately, many of these students face obstacles and challenges in seeking appropriate mental health care in their local communities, and there are few systems or policies in place to help them return to school once they have stabilized. (These same medical leave policies may prevent students from coming forward for help in the first place.)

Mental Health Services

Untreated mental illnesses—specifically depression, bipolar disorder, schizophrenia, and substance abuse—are the leading contributory causes of suicide in young adults (Goldsmith, Pellmar, Kleinman, & Bunney, 2002). These disorders are common among youth (Shaffer et al., 1996; King, 1997). Progress has been made in the scientific understanding of suicide, mental disorders, and substance abuse, as well as in developing interventions to treat these disorders.

For example, the ability to identify, treat, and support students who are suffering from depressive illnesses is a critical strategy for campus suicide prevention. Recent research on brain systems holds promise for greater understanding of the biological underpinnings of depression, anxiety disorders, impulsiveness, aggression, and violent behaviors (Stoff & Mann, 1997). The impact of some risk factors can be reduced by interventions such as providing effective treatments for depressive illness (Isacsson, Holmgren, Druid, & Bergman, 1997).

With the increase in demand for clinical mental health services, many colleges and universities find their resources stressed, and are working to expand and make services more efficient (Kitrow, 2003). Most college mental health centers are understaffed, and the available resources are spread dangerously thin. Associated with a shortage of

professional staffing is the need for more sophisticated training in assessment, diagnosis, treatment, and management of an increasingly difficult population 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, and therefore place more of a burden on local community health and mental health services (Brindis & Reyes, 1997).

Many college counseling centers rely heavily on community services such as community mental health centers, rape crisis services, emergency/mobile units, local crisis hotlines, and, now, national 1-800 help lines. Colleges and universities are fairly consistent in relying on the local mental health practitioner community of psychiatrists, psychologists, social workers, and other licensed mental health professionals for services. This reliance can place a burden on these services. Clinics designed to serve the low-income and working community can be overwhelmed by student clients.

In 1984, the University of Illinois instituted a formal program to reduce the suicide rate among its students (Joffe, 2003). At the core of this program is a policy that required any student who threatened or attempted suicide to attend four sessions of professional assessment. Consequences for failing to comply with the program included mandatory withdrawal from the university. In the 18 years since the program has been in effect, reports on 1,531 suicide incidents have been submitted to the Suicide Prevention Team. The suicide rate decreased from 6.91 per 100,000 enrolled students during the eight years before the program started to 3.08 during the 18 years of the program—a reduction of 55.4 percent. This reduction occurred against a backdrop of stable rates of suicide, both nationally and among 11 Big Ten peer institutions.

Colleges and universities should assess the adequacy of available mental health services and referrals to ensure that these services are capable of meeting the demands of their student populations.

Means Restriction

Restricting access to lethal means involves efforts to limit students' access to handguns, drugs, and other common means of suicide. Many campuses have tall buildings and other high places that are used as a means to attempt suicide. Restricting access to high places on or near campuses may also be an effective strategy to prevent suicides.

It has been estimated that between 3 and 5 percent of college and university students possess firearms on campus (Miller, Hemenway, & Wechsler, 1999 & 2002). Some schools have policies about firearms on campus, although it is unclear how consistent these policies are or whether they are enforced. One strategy to prevent firearm suicide might be to establish guidelines for working with high-risk students that focus on removing access to firearms and other highly lethal items.

Most campuses have risk management officers who are concerned about injury liability issues. Their concerns include access to lethal chemicals and students jumping or falling

from bridges, windows, and roofs. University risk managers should be involved in college suicide prevention efforts, especially those using environmental strategies, including the restriction of access to lethal means.

Social Marketing and Education

While there is no evidence base supporting the efficacy of social marketing approaches at present, many suicide prevention practitioners believe that campus social marketing campaigns can stimulate cultural changes that destigmatize mental health problems, remove barriers to accessing appropriate care, and encourage help-seeking. To date, there are no evaluated programs on college campuses specifically addressing these issues in terms of mental health. EDC's Higher Education Center for Alcohol and Other Drug Abuse and Violence Prevention (HEC) is a national leader in promoting social marketing approaches to prevent the abuse of alcohol and other drugs among college students.

An important element of a campus social marketing strategy is making students, faculty, staff members, and administrators aware of the problem and the resources to promote mental health and prevent suicide. An example of such an effort is The Truth About Suicide: Real Stories of Depression in College, a short film for college students developed by AFSP. The film's primary goal is to present a realistic and recognizable picture of depression in college-age youth, to encourage those suffering from depression and other psychiatric disorders to seek treatment, and to encourage those recognizing the signs of mental disorders in a friend, classmate, or charge to help them seek treatment. Target audiences for this film include residence hall advisors, health education faculty members, freshman orientation staff members, student counseling center personnel, and students. A package of supplemental educational materials for students is in development, with instructional materials to assist faculty and others in presenting the information, guiding student discussions, and answering specific questions about suicide.

Some colleges utilize the Internet as a tool to disseminate information and education about mental health issues and suicide prevention. One of the most comprehensive collections of virtual pamphlets is maintained by the University of Chicago (counseling. uchicago.edu/vpc/). Most college counseling unit Web sites feature National Institute of Mental Health (NIMH) materials on how to recognize and respond to the warning signs of depression and suicide, as well as faculty guides on identifying and referring youths at risk, and materials teaching parents how to monitor their children and talk to them about common college problems, such as loneliness, adjustment disorders, time management issues, and negotiating issues with roommates.

Efficacy and Effectiveness of Specific Strategies

There is limited information about the efficacy and effectiveness of suicide prevention strategies. There have been no specific treatment outcome studies that enroll only college and university students. However, most treatment research studies do include

subjects in this age group. Current research indicates that certain interventions have been shown to be effective for the treatment of psychiatric disorders often seen among college-age students, including depression—which is the most common psychiatric disorder associated with suicide—bipolar disorder, schizophrenia, and eating disorders. These interventions also have been demonstrated effective for generalized anxiety disorders, including PTSD. Promising interventions fall into two categories:

- Somatic interventions, including SSRIs, Lithium, and Clozapine

- Psychosocial interventions, including dialectical behavioral therapy (DBT), cognitive behavioral therapy (CBT), and interpersonal therapy (IPT).

These treatments and the evidence for their effectiveness have been reviewed extensively in two major publications:

- Practice guidelines for the assessment and treatment of patients with suicidal behaviors. (2003). American Journal of Psychiatry, 160(Suppl. 11), 1–60.

- Practice parameters for the assessment and treatment of children and adolescents with suicidal behavior. (2001). Journal of the Academy of Child and Adolescent Psychiatry, 40(Suppl. 7), 4S–23S.

In addition, there is a growing literature on the need to limit quantities of certain prescription psychotropic medications to prevent the possibility of lethal overdoses. These guidelines apply to all patients receiving psychotropic medications. Hawton (2002) demonstrated that limiting the number of tablets in packages of acetaminophen resulted in fewer suicidal overdoses with acetaminophen without an increase in other forms of over-the-counter drug overdoses.

In addition, a number of published studies have established the effectiveness of school-based prevention and intervention programs. There is ample literature on school-based interventions addressing violent behavior and alcohol and drug abuse. The literature is just emerging for self-destructive behaviors. Such programs are being reviewed by SPRC's Evidence-Based Practices Project. The results will be released in fall 2004. Some preliminary evidence is available from other studies including Kalafat (2003), Grossman and Kruise (2000), and Gould and Kramer (2001).

We also know a great deal about how to implement prevention programs to increase their effectiveness. Principles of effectiveness from other prevention topics have been adapted for implementing suicide prevention efforts. For example, Metha, Weber, and Webb (1998) identified elements of effective school-based preventive intervention programs. The Maine Youth Suicide Prevention Program developed guidelines to help Maine schools develop school-based suicide prevention, crisis management, and postvention protocols (DiCara & O'Holloran, 2002). And the CDC published school health recommendations to prevent unintentional injuries, violence, and suicide (2001). The challenge is to "translate" these successful intervention and implementation strategies to the college environment.

Preventing Suicide Among College Students: A Comprehensive Approach

The complex problem of suicide and suicidal behaviors on campuses demands a multifaceted, collaborative, coordinated response, and cannot be left solely to counselors and mental health centers. College administrators need to ensure that all elements of the campus and community work together. Experts in mental health and suicide prevention agree that a systemic set of interventions that include efforts aimed at changing social norms about help-seeking as well as suicide prevention training are needed (NMHA & Jed, 2002).

Many campus mental health services are struggling to meet an increased demand for their services (Kitrow, 2003). While many colleges and universities are expanding efforts to meet this demand, others struggle with balancing the cost with the need. There are few specific suicide prevention efforts on college and university campuses.

Ideally, a comprehensive campus mental health promotion and suicide prevention program would facilitate development of resilience and identify and resolve mental health problems. The integration of suicide prevention activities into mental health, wellness, injury prevention, and public safety programs not only deters the most extreme and irrevocable risk to a young person's well-being, but adds value and effectiveness to these other efforts.

In 2001, NMHA and The Jed Foundation cosponsored Expanding the Safety Net: A Roundtable on Vulnerability, Depressive Symptoms and Suicidal Behavior. This discussion included a broad range of national experts who recommended strategies that might enhance intervention and ultimately reduce the rate of suicide, suicide attempts, and related behaviors among college students. One product of their discussions was a list of essential services for addressing suicidal behaviors on campus (NMHA & Jed, 2002). These essential services are described in Figure 1 on page 18.

Colleges and universities need more than services to adequately address suicide and related mental health problems. They need an operating structure in which to develop, implement, and coordinate these services and a conceptual framework in which to implement these activities as effectively as possible.

The following are requirements for the creation of such a structure and framework to support suicide prevention on campuses:

- Engage a broad and diverse group of participants representing relevant campus and off-campus partners, including students and their families.

- Specify strategy aims, goals, and measurable objectives integrated into a conceptual framework for suicide prevention.

- Sustain a functional operating structure with authority, funding, responsibility, and accountability for strategy development and implementation.

- Facilitate agreements among administrative, academic, and health units

outlining and coordinating their appropriate segments of the strategy to address specific targets of intervention.

- Define appropriate activities for administrators, faculty, staff, students, families, clinicians, and other participants that can be evaluated.

- Develop a data collection and evaluation system to track information on suicide prevention and benchmarks for strategy progress.

- Integrate suicide prevention into existing health, mental health, substance abuse, education, and student services activities. Settings that provide related services, such as clinics, faith-based institutions, and student and community centers are all important venues for seamless suicide prevention activities.

- Guide the development of activities that will be tailored to the cultural contexts in which they are offered. Attention to the cultural and developmental appropriateness of suicide prevention activities is key to success. Ethnic, religious, and gender diversity need to be considered, as do the different risk factors at work in younger and older students.

- Emphasize early interventions to reduce risk factors for suicide and promote protective factors. As important as it is to recognize and help suicidal individuals, progress depends on measures that address problems early and promote strengths so that fewer people become suicidal.

Strategies to Support Efforts of Colleges and Universities to Prevent Suicide

Some colleges and universities are taking steps to prevent suicide and respond to suicidal ideation and other mental health issues. But many require assistance.

A number of efforts could contribute significantly to increasing "the proportion of colleges and universities with evidence-based programs designed to address serious young adult distress and prevent suicide" (Objective 4.3 of the National Strategy for Suicide Prevention, DHHS, 2001). These include the following:

- Establishing a centralized registry for suicides and suicidal behavior among college and university students in order to provide sound and consistent information about the magnitude and trends of the problem.

- Developing a guide to college suicide prevention that provides a synthesis of what is known about the problem and successful efforts related to student mental health and suicide prevention. The guide could offer a general set of policies and practices that schools should consider in mounting efforts to promote mental health and prevent suicide.

- Developing and disseminating a comprehensive framework to guide campuses in improving systems and services. This might take the form of guidelines or a tool for implementing mental health promotion and suicide prevention programs in colleges and universities that are culturally appropriate and adaptable to the type of school and associated student body.

- Creating a leadership group consisting of presidents and others who can provide leadership on implementing model college and university mental health promotion and suicide prevention programs.

- Conducting two to five demonstration projects with schools of varying sizes and student body compositions that would implement and evaluate comprehensive mental health promotion and suicide prevention programs. This would help create a flexible model that could be promoted at other colleges and universities.

- Providing seed/leverage grants to schools to facilitate development and implementation of comprehensive plans to provide incentive and create a network of early adopters. A small incentive for schools to adopt established model programs would expedite the replication of such programs.

- Developing standards for college and university mental health promotion and suicide prevention practices (based on a comprehensive framework) and establishing a process by which school programs would be reviewed by an expert panel that would provide feedback and suggestions for improvement.

- Creating a centralized resource center/clearinghouse to provide leadership, information, and technical assistance to colleges and universities on designing, implementing, and evaluating comprehensive mental health promotion and suicide prevention programs. This center might also manage the process by which existing programs would be reviewed (as above).

- Including a designated administrative staff person and student representation from key racial and ethnic groups in planning and implementation efforts for mental health promotion and suicide prevention.

- Adopting the ACHA's standards for student health insurance/ benefits programs to ensure that all students have access to appropriate care for their physical and mental well being.

Conclusion

In 2004, the U.S. government expects to spend nearly $70 billion on student financial assistance—the Federal government's most significant contribution to our nation's post-secondary school students. However, it is an investment that may not always yield anticipated results. Undiscovered, unaddressed, and unmet mental and behavioral health problems among college students can interfere with academic success as surely as a lack of computers, competent staff, or textbooks.

Investing in college campus mental health programs and suicide prevention programs can yield benefits far beyond the contribution these programs make to the personal well-being of students. They can help ensure that the Federal investment in post-secondary education is returned to the taxpayers in the form of academically successful and emotionally sound college graduates ready to contribute as members of families, communities, and the workforce.

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