

**Help-seeking for mental health on college campuses:
Review of evidence and next steps for research and practice**

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ABSTRACT

This article reviews what is known about help-seeking behavior for mental health problems in college populations, and offers a perspective on next steps for improving knowledge and practice in this area. The review suggests that traditional barriers such as stigma can only partially explain the high prevalence of untreated disorders, and discusses the conclusions and limitations of research on campus-based intervention strategies such as anti-stigma campaigns, screening programs and gatekeeper trainings. In proposing new directions for research and practice, the article considers insights from research on other health behaviors such as diet and exercise, as well as innovative ideas from behavioral economics and cognitive psychology regarding behavior change.

Keywords: help-seeking; service utilization; college students; review; commentary

1. INTRODUCTION

Most mental disorders have their first onset by age 24,¹ and mental disorders account for more disability-adjusted life-years lost than any other class of conditions among late adolescents and young adults in the U.S.² Mental disorders early in life are significant predictors of educational attainment, employment and productivity,³ social relationships,⁴ and mortality.⁵ College campus settings typically have a rich array of interconnected resources, and are well-positioned to have a positive impact on mental health during the college years and beyond. However, the majority of college students with mental disorders are not receiving treatment.⁶ This lack of treatment represents a missed opportunity to decrease the burden of mental illnesses in our population.

The main objective of this article is to advance thinking, from the standpoint of both research and practice, regarding how to increase the use of appropriate services among college students with significant mental health issues. The article begins with a conceptual discussion (Section 2) to clarify our focus on “help-seeking” and to illustrate potential pathways by which interventions might influence help-seeking. The article then reviews the state of knowledge about help-seeking for mental health in college populations, especially in the United States. The review covers epidemiological data on the prevalence and correlates of help-seeking (Section 3), particularly from large, multi-site studies such as our Healthy Minds Study, and then summarizes the sparser research on interventions (Section 4). Finally, the article suggests priorities for research and practice (Sections 5 and 6) and offers a summary of conclusions (Section 7). A main theme of the conclusions is that novel intervention approaches are needed to supplement traditional approaches focusing on attitudes and knowledge about mental illnesses.

2. CONCEPTUAL FRAMEWORK

Scope of this article. The amount and type of mental health treatment received by an individual results from a confluence of factors, including individual-level factors, social networks, provider availability, and public policy. This article examines “help-seeking” and therefore focuses on factors that most directly relate to individuals’ decisions to seek help, such as attitudes and knowledge about treatment options. Other issues in the provision of mental health care, such as the supply and organization of providers (e.g., availability of providers in the face of rising demand⁷ and integration of medical and mental health services⁸), although clearly important, are largely outside the scope of this article.

Models of help-seeking. There is no single, unifying theory of help-seeking behavior for mental health;⁹ rather, there is a rich array of complementary frameworks, each with a somewhat different emphasis. The Health Belief Model takes an individualistic approach to explain perceived need and help-seeking.¹⁰ It suggests that appropriate use of services among students will increase through interventions to change students’ knowledge, attitudes, and beliefs about mental health. The Andersen Behavioral Model also focuses on help-seeking behaviors at the level of individuals, but highlights social and structural factors.¹¹ This model emphasizes: 1) predisposing factors (e.g., demographics, knowledge, attitudes, and beliefs); 2) enabling factors (e.g., insurance, ability to pay, availability of providers, and having a usual source of care); and 3) need factors (e.g., perceived need and symptom severity). In addition, the Network Episode Model suggests help-seeking models should account for informal sources of help-seeking from

nonprofessionals,¹² and emphasizes the informal social network as a contributor to knowledge and attitudes.

Economic perspective. Although less prevalent in the help-seeking literature, an economic perspective is also useful for understanding help-seeking behavior. Standard economic theory distinguishes between a *positive* perspective, which simply seeks to understand and predict behavior, versus a *normative* perspective, which seeks to evaluate whether a behavior makes an individual (or a society) “better” or “worse” off.¹³ In the complicated context of help-seeking for mental health, it is easy to lose sight of the important distinction between these perspectives. A positive perspective helps understand what types of interventions are likely to influence help-seeking behavior. Consumers (potential clients of mental health services) are predicted to use services when they perceive that the benefits exceed the costs borne by the consumer. In campus settings the monetary price of services is often very low; many campuses offer free services, and the majority of students also have insurance coverage. Therefore, the help-seeking decision may come down to whether the net non-monetary benefits and costs of treatment are above zero—i.e., whether the expected improvement in health is viewed as more valuable than the nonmonetary costs such as time and possibly embarrassment or shame related to stigma.

The normative perspective, on the other hand, raises the question of whether and when help-seeking interventions are warranted at all. Some people with mental health problems may be making a rational calculation that seeking help and using treatment would not make them any better off, because the costs would exceed the benefits. In these cases, interventions to influence help-seeking behavior are harder to justify. On the other hand, there are important reasons why

people with mental health problems may not make rational decisions about help-seeking, such as impaired cognition or lack of information about their health condition and treatment options. Many people may not realize that standard treatments for depression and anxiety disorders are highly cost-effective.^{14,15} In addition, as we discuss in the final section of this article, the field of behavioral economics has highlighted a number of other ways in which health behaviors appear to be irrational and may therefore warrant intervention.

3. EPIDEMIOLOGICAL DATA: PREVALENCE AND CORRELATES OF STUDENT HELP-SEEKING

Prevalence of treatment use and help-seeking

Overall college populations. Perhaps the best snapshot of college students' mental health comes from the 2001-2002 National Epidemiologic Survey on Alcohol and Related Conditions (NESARC).¹⁶ This study included a nationally representative sample of adults and used fully structured diagnostic interviews to assess mental disorders. Among college students ages 19 to 25 with an apparent past-year mental disorder (N=1,002), only 18% received any mental health treatment (as compared to 21% among same-aged non-college students).⁶ More specifically, the prevalence of treatment was 34% among students with a mood disorder, 16% among students with an anxiety disorder, and only 5% among students with an alcohol or drug disorder. This study also indicated that the overall prevalence of mental disorders and substance use disorders was only slightly lower among college students ages 19-25, as compared to same-aged non-students, although the relative differences may be larger for the most severe disorders (e.g., 3.2%

of college students met clinical criteria for bipolar disorder, versus 4.6% of non-students; schizophrenia and other psychotic disorders were not assessed).

Given the well-documented increases in treatment use among college students and young persons in general over the past 15-20 years,¹⁷ the NESARC data probably understate the current prevalence of treatment. Nevertheless, more recent data from large, multi-institutional studies corroborate that most students with mental health problems do not receive treatment. For example, in a 2006 study by the National Research Consortium of Counseling Centers in Higher Education, which included 70 campuses and over 26,000 survey respondents, fewer than half of students who seriously considered attempting suicide in the previous year received any professional help.¹⁸

Our own research in the Healthy Minds Study similarly highlights the low prevalence of treatment among students with mental health problems. This study uses online surveys of random samples at colleges and universities to assess mental health symptoms, service use, and related factors. Mental health symptoms are assessed using brief screening instruments including the Patient Health Questionnaire (PHQ) for depression and anxiety,¹⁹ and service use is assessed using questions adapted from the Health Care for Communities study.²⁰ The study began in 2005 at a single university, and has since expanded to a cumulative sample with over 75 campuses and over 50,000 respondents.

In the pooled 2007 and 2009 Healthy Minds samples, which included over 13,000 survey respondents at 26 campuses, only 36% of students with an apparent mental health problem (a

positive screen for depression, panic disorder, generalized anxiety disorder, suicidal ideation, or self-injury) received any form of treatment in the previous year.²¹ Those receiving treatment included 11% receiving psychiatric medication only, 11% receiving psychotherapy/counseling only, and 14% receiving both. In addition, among students who received treatment for depression, only about half received care at or above levels considered minimally adequate according to evidence-based guidelines (at least two months of antidepressant use with at least four discussions with the provider, or at least eight sessions of counseling/therapy),²² and the likelihood of minimally adequate treatment was similarly low for both medication and psychotherapy/counseling (unpublished data from Healthy Minds Study). There were also large variations in service use across campuses, with more than twice the prevalence at some campuses compared to others. The study has yet to identify campus-level characteristics explaining much of this variation, indicating that campus-level variation remains an important area for additional research.

Specific sub-populations. Whereas the numbers above reflect overall college and university samples, which are predominantly undergraduates, the low prevalence of treatment also appears to be present among graduate and professional students. Two survey studies of medical students at single institutions (with samples of 194 and 322, respectively) found that only 22% and 27%, respectively, of depressed medical students received mental health treatment.^{23,24} Also, a survey of 3,121 graduate students at a large university found that utilization of mental health services was substantially lower than apparent needs.²⁵

As in the general population, treatment use is higher among women and among whites in the college population. In the Research Consortium study women with suicidal ideation were more likely to receive professional help than men with suicidal ideation.¹⁸ In the Healthy Minds data, 39% of women with mental health problems received treatment, compared to 30% of men.²¹ Also, 40% of white students with mental health problems received treatment, compared to 28% of Hispanics, 26% of blacks, and 15% of Asians. In another study, which included undergraduate psychology students at a large university, there were even larger differences by race/ethnicity when examining the lifetime prevalence of treatment use: 50% among whites, 19% among blacks, and 9% among Asians.²⁶

The consistently large proportion of students without professional treatment raises the question of how many students actually “need” treatment. This question is particularly relevant considering that most of these students are experiencing conditions such as unipolar depression or anxiety disorders, rather than the most severe and chronic conditions such as schizophrenia and bipolar disorder. From the economic perspective noted earlier, the amorphous question of “need” can be more concretely reframed as whether the benefits of treatment are likely to exceed the costs. The answer would appear to be yes for the majority of these students, given that standard treatments for depression and anxiety disorders are highly cost-effective, as noted earlier, not to mention the links between mental health and academic outcomes in college.²⁷ It is also important to note that the low prevalence of treatment is present even among students with more severe symptoms and risk; for example, in the 2007-2009 Healthy Minds sample, even among students with suicidal ideation and the highest level of depressive symptoms (PHQ scores

in the 20-27 range), 39% had not received any professional treatment in the past year (unpublished data).

Informal help-seeking. As emphasized by recent conceptual frameworks such as the Network Episode Model,¹² social contacts and networks also play an important role in help-seeking. Indeed, students with mental health problems seek help from non-professionals, particularly peers, more frequently than professional sources. In the Healthy Minds Study, 78% of students with mental health problems received counseling or support from a nonprofessional; friends (67%) and family members (52%) were the most common sources.²¹ In the Research Consortium study, 54% of students with serious thoughts of suicide told someone about their suicidal thoughts.¹⁸ Two-thirds of those who disclosed their suicidal ideation first told a peer, such as a romantic partner, roommate, or friend. Also, among students who disclosed their suicidal ideation to others, 58% of undergraduates and 50% of graduate students were advised by the first person they told to seek professional help.

College students also frequently tell others about their mental health problems via social networking websites, which may be another informal way of seeking help in some cases. An analysis of 200 Facebook profiles among undergraduates at one institution found that 25% of profiles contained text in “status updates” that was consistent with depressive symptoms and 2.5% met criteria for a major depressive episode.²⁸ Social networking sites represent a potential avenue for intervention not only by friends but also by professionals: Facebook’s new partnership with the National Suicide Prevention Lifeline facilitates the link to professional counselors for people expressing significant distress on the social networking site.²⁹

Correlates of help-seeking (barriers and facilitators)

To understand why students with mental health problems do not receive treatment, researchers have examined the correlation between help-seeking and factors regarded as potentially important barriers. Consistent with most conceptual models of help-seeking, many of these studies have focused on attitudes and beliefs about mental illness and treatment, especially stigma. These studies consistently conclude that, as anticipated, negative attitudes and beliefs are important barriers to help-seeking among college students.

Stigma. It is useful to distinguish between types of stigma such as self-stigma (applying negative attitudes towards oneself) and public stigma (negative attitudes held by others).³⁰ One study of college students concludes that these forms of stigma interact, with perceptions of public stigma influencing self-stigma, which then influences help-seeking attitudes.³¹ In the Healthy Minds Study, we have focused on perceived public stigma and what we have termed “personal stigma.” Personal stigma measures students’ views towards people in general who use mental health treatment, which may be different than how students would view themselves (i.e., self-stigma). We have found that personal stigma is significantly and negatively associated with several measures of help seeking (perceived need and use of psychotropic medication, therapy, and nonclinical sources of support), whereas perceived public stigma is not significantly associated with help seeking.³² Also, the average level of perceived public stigma is considerably higher than that of personal stigma, which suggests a possible opportunity to correct students’ exaggerated perceptions of stigma in their community.

Stigma also helps explain why help-seeking is lower among certain types of students. In the Healthy Minds data, personal stigma is higher and help-seeking is lower among men, Asians, and students who reported growing up in a poor family. In another study of undergraduate psychology students at a large public university, stigma was higher among blacks and Asians compared to whites.²⁶ Another study found that, among 128 students at a large university, higher personal stigma, but not perceived stigma, expressed by South Asians accounted for a large portion of the difference in attitudes toward counseling services as compared to the other students.³³ Also, students experiencing suicidal ideation may face a unique set of concerns related to stigma. In the Research Consortium study the most commonly reported reasons for not telling others about suicidal thoughts included the fear of being stigmatized or judged, not wanting to burden others, thinking that the problem was transitory, not having anyone to tell, and fear of consequences such as expulsion from school or forced hospitalization.¹⁸ Professional students also report significant concerns about negative repercussions of disclosing their mental health issues. Among medical students, the most commonly cited barriers to using mental health services included not only lack of time and stigma, but also fears about negative impacts on career and academic record.^{23,24}

Perceived need. Another reason why students do not seek treatment is they often do not perceive a problem warranting help or intervention. Perceiving a need for help is one of the strongest correlates with intentions of help-seeking³⁴ and actual help-seeking in student populations.²¹ Because perceived need is a broad concept encompassing many factors, it is important to understand specifically why students do not perceive a need for professional help. In the Healthy

Minds data students with untreated mental health problems most commonly report the following reasons for not receiving services: their problem will get better by itself; stress is normal in college or graduate school; they question how serious their problem is; they prefer to handle their problems on their own; and they do not have time to seek treatment.²¹ Collectively these factors suggest that students are often aware of their distress on some level, but they do not necessarily perceive a large benefit from treatment.

Social context. Another significant correlate of help-seeking in the Healthy Minds data is having close friends or family members who have used treatment.²¹ Also, residential settings may be important, as students living on campus are more likely to use psychotherapy/counseling, but less likely to use medication. These findings point to the importance of social context and social networks, which represent promising directions for intervention strategies.

Cultural competence. Cultural competence of services represents a potential barrier for certain groups of students; for example, “people providing services aren’t sensitive enough to cultural issues” was cited as an important reason for not receiving services by 9% of nonwhite students with untreated mental health problems in the 2007-2009 Healthy Minds data (unpublished data). Also, “people providing services aren’t sensitive enough to sexual identity issues” was cited as an important reason for not receiving services by 23% of students with sexual orientations other than heterosexual.

Other barriers. Finally, a new analysis of Healthy Minds data indicates that, while negative attitudes and beliefs about treatment may be important barriers for many students, 64% of

students with untreated mental health problems actually report low personal stigma and positive beliefs about treatment (unpublished Healthy Minds data). Among these students the most commonly endorsed reasons for not seeking services are similar to those noted earlier for the overall sample of untreated students: “I don’t have time,” “I prefer to deal with these issues on my own,” “stress is normal in college/graduate school,” and “I question how serious my needs are.” These data indicate that many untreated students do not have deep-rooted attitudes preventing them from receiving treatment, which suggests that the traditional focus of help-seeking interventions on stigma may need to be supplemented by other approaches. It is also possible that stigma takes more subtle forms in college populations than those measured in our study, which will require closer examination in future research. Although few students endorse stigmatizing attitudes directly, a greater number of students may agree with these attitudes on an implicit level.

Summary of correlates and barriers. A wide range of factors appear to influence students' help-seeking for mental illnesses, and in some cases these factors vary in importance across subgroups of students. Traditionally emphasized barriers, such as knowledge and stigma, are clearly not the entire story; future research must also consider factors such as perceived need for help, social networks, and cultural competence of services. Some recent evidence suggests that many untreated students have positive attitudes and beliefs about treatment, implying that new approaches to help-seeking interventions may be useful.

4. RESEARCH ON INTERVENTIONS TO ADDRESS HELP-SEEKING

The growing base of epidemiological data offers a promising foundation to guide intervention approaches to help-seeking, but the evidence on the effectiveness of interventions in college settings is still sparse. Practice appears to be far ahead of research; although there are no formal data on campus practices, through discussions with campus health administrators we have seen that most four-year institutions have some type of program to encourage help-seeking behavior. These programs are highly varied and often home-grown; this lack of standardization probably reflects the limited research evidence on best practices as well as the creativity and energy among campus practitioners. From our observation, the most common intervention strategies to address help-seeking on college campuses can be roughly categorized into three groups: 1) stigma reduction and education campaigns; 2) screening and linkage programs; and, 3) gatekeeper training. Because of the limited, college-specific research evidence on these approaches, the review in this section also draws on broader research on non-college populations as a starting point for identifying interventions likely to be effective among college students.

Stigma reduction and education

Perhaps the most common approach to increase help-seeking on college campuses consists of programs or campaigns to reduce stigma and educate students about mental illness and treatment. These initiatives are often referred to as “outreach” by campus health and psychological counseling centers, because they are reaching out to students in the larger campus setting (and not just waiting passively for students to come to them). These programs use a variety of ways to connect with students, including speakers, performances, flyers, newsletters, and catchy slogans or logos that illustrate the importance of mental health. These efforts are often led by

students themselves; for example, Active Minds (www.activeminds.org) is a national organization of student leaders at over 300 campuses with an explicit mission of educating, reducing stigma about mental illness, and increasing help-seeking.

Despite the rich and numerous activities on campuses, we were unable to find any published evaluations of programs to reduce stigma or educate students about mental illness in the college setting. Evidence from other settings, however, suggests that education and social contact are promising approaches to reduce stigma.³⁰ For example, a school-based program combining education and social contact with persons with mental illness demonstrated reductions in stigmatizing attitudes among adolescents six months later.³⁵ Although many interventions have demonstrated their effectiveness in reducing stigma, few of these studies assess the effectiveness of these strategies to actually increase help-seeking.^{36,37}

Screening and linkage

Another set of strategies on campuses identifies students in distress (screening) and steers them towards appropriate services (linkage). The Internet is a natural venue for these programs, given students' frequent use. For example, the American Foundation for Suicide Prevention's (AFSP) Interactive Screening Program (ISP) uses a web-based screen to identify students with higher risk for suicide. Students are invited by email to complete a brief online screen of suicide risk factors such as depressive symptoms and heavy alcohol use, and students with elevated risk are sent a personalized message from a counselor that invites them to an in-person evaluation. Students can also correspond through the website with the counselor in order to address concerns

or questions about their options for help. Evaluations to date showed that the program was successful at linking students to services if they completed the screen and entered into a dialogue with the counselor, but the reach of the program was limited by the low percentage (8%) of students who completed the initial screen.^{38,39} This program has been refined and is now used at 25 colleges and universities, and additional results will be available soon. Screening and linkage efforts in the college setting might also learn from the experiences of the TeenScreen program, which is being used in secondary school settings throughout the country.⁴⁰

Another important form of screening is the triaging that campuses use to handle the ever-increasing number of students seeking counseling services. A triage system developed by Harry Rockland-Miller (University of Massachusetts) and Gregory Eells (Cornell University) has improved the ability of several campuses to identify students in acute distress and offer timely evaluations and services.⁴¹ In this system, all new clients who contact the clinic are given same-day, 20 minute triage appointments with clinicians, usually by phone, and the information from those appointments is used to determine the next steps in the clinical care. The implementation of this triage system at Cornell University was followed by reductions in psychiatric hospitalization and psychological leaves of absence, as well as high client and staff satisfaction.

Another promising development in screening is the College Breakthrough Series – Depression (CBS-D) project. This initiative includes a network of campuses collaborating in an effort to deliver screening in primary care, early intervention, and more continuous, integrated treatment of depression for students.⁴² An evaluation of this program at eight campuses yielded encouraging results for treatment engagement and clinical improvements. Over a 17 month

period, 801 students identified with clinical depression were provided treatment (medication and/or therapy) and tracked for a 12 week period. As of 12 weeks following the initial screen, 86% were retained in active treatment, 58% had a documented self-management goal agreed upon between the student and clinician, and 52% experienced functional improvements.

Gatekeeper training

Gatekeeper training programs target people (“gatekeepers”) who are in frequent contact with others in a community, and provide them with skills and knowledge to recognize, intervene with, and refer people with a mental health crisis or a developing mental health problem. Gatekeepers on college campuses could be faculty members, advisors, residence life personnel, and peer leaders, among others. A number of gatekeeper training programs target suicide prevention. For example, Question, Persuade, Refer (QPR) (www.qprinstitute.com) and safeTALK (www.livingworks.net/page/safeTALK) teach gatekeepers to recognize and respond to signs of suicide appropriately. Other programs address mental health issues more generally. At-Risk for University Faculty and At-Risk for College Students are online gatekeeper training programs (www.kognito.com/products/faculty) offering faculty and students scenarios in which they can simulate recognizing students with symptoms of mental illness and referring them to professional services. Mental Health First Aid (MHFA) (www.mentalhealthfirstaid.org/cs) is a more intensive training, lasting twelve hours, teaching skills and knowledge to provide initial support and referral for someone showing symptoms of a mental illness. Campus Connect is a training program developed at Syracuse University specifically for college campuses (counselingcenter.syr.edu/index.php/campus-connect). Although there are no formal data on how

many campuses are using gatekeeper programs, the number is at least on the order of several hundred. The QPR program alone is used at over 300 campuses internationally according to their website. Also, in our recent evaluation study of the MHFA program at 33 campuses, we found that every residential campus was already conducting at least some minimal form of gatekeeper training for their resident advisors.

As with other intervention strategies, the use of gatekeeper training in college settings has advanced more rapidly than the corresponding research. Each program has demonstrated positive effects on trainees' self-perceived knowledge and skills, but most of the evaluations have been in non-college settings such as workplaces, secondary schools, and the general community. In one of the few peer-reviewed evaluations of gatekeeper training on college campuses, the QPR program increased gatekeepers' reported knowledge about suicide and expected likelihood of intervening with a student showing symptoms of a suicide crisis. As an example of evidence outside of college settings, gatekeepers trained in MHFA have reported decreased stigma, increased knowledge, and an increased likelihood of assisting an individual showing symptoms of mental illness, as compared to control groups.⁴³

The main limitation of research on gatekeeper programs is the lack of objective outcome data on the help-seeking and wellbeing of community members that the trainees are intended to help, as opposed to only reports from the trainees themselves. It is still unclear how trainees' self-perceived increase in skills and knowledge is translating to real behavioral impacts. In an uncontrolled, initial study involving faculty and students who took the At-Risk training, both groups reported an increase in the number of students whom they approached and referred to

mental health services.⁴⁴ In our own 33-campus randomized control trial of the MHFA program's effectiveness on college campuses, the preliminary results indicate that the training increased resident advisors' self-perceived knowledge about mental health and their confidence to identify and help students, but the training did not affect the use of services by the general population of students in the residences. Given these mixed findings, more evidence on the effects of gatekeeper training programs on student communities would be valuable.

5. NEXT STEPS FOR CURRENT APPROACHES

General conclusions

Each of the intervention approaches in current use has shown promise, as illustrated by the discussion above. The strategies can be complementary, because they operate through different venues. The epidemiological data clearly indicate that help-seeking interventions are needed, and the current approaches are generally consistent with the barriers highlighted in conceptual models and epidemiological data. For example, gatekeeper training programs not only increase knowledge, but also take advantage of existing social networks. Thus, there is a reasonable basis for these approaches, even if the empirical evidence on effectiveness is still limited.

Furthermore, there is undoubtedly a considerable amount of informal data about what is working at each campus, which cannot be observed in reviews of published research.

Nevertheless, a main priority should be to gain better information about the impacts of these programs, so that limited resources can be more efficiently funneled towards what works best.

This can be done not only through projects initiated by researchers, but also through efforts by campus practitioners and administrators to improve the quality and dissemination of their internal program evaluations. These campus-by-campus evaluations should consider research designs that are as rigorous as possible (e.g., phased-in or randomized, controlled comparisons, with validated pre and post outcome measures). To encourage these efforts, campus practitioners must be given the time and incentives to conduct high quality research evaluations, much as it often argued that researchers should be given more time and incentive to contribute to practice.

Towards these ends it is important to develop strong networks linking researchers and campus practitioners and leaders. Through such networks campus practitioners could receive technical assistance from research experts, as well as access to pooled, freely available data about intervention strategies and evaluation results. An initial effort in this direction is the new College Mental Health Research Symposium, which is being held in Ann Arbor, MI each March in conjunction with the annual Depression on College Campuses conference.

Strengths and limitations by type of intervention

One of the main strengths of campaigns to reduce stigma and educate students about mental illness is the potential to reach large proportions of campus populations. For example, events, performances, and media campaigns might be seen or heard by thousands of students on any given campus. The effects of these interventions, however, are difficult to evaluate. It may be challenging to identify a control group that represents a credible approximation of what would

have happened in the absence of the intervention. Whenever possible, campus evaluators should consider opportunities to phase in which subpopulations or parts of campus are subject to the intervention, in order to emulate a wait-list control design. In addition, future evaluations of stigma-reduction campaigns in the college mental health field should not only measure changes in attitudes, but also the effects of these campaigns on help-seeking and wellbeing.

Screening and linkage programs also have the potential to reach a large proportion of student populations. Preliminary evidence suggests that this approach can be effective for students who engage in the intervention. The approach is also likely to be cost-effective, given the modest resources required once a program has been established, particularly in Internet-based programs. A key question is how to increase the proportion of students who engage with these programs, however, because email invitations to online screens are easily ignored. Campuses could consider incorporating a screening program as a regular mental health “checkup” (to borrow the term used by the TeenScreen program) for all students. Screening through primary care will also remain an important opportunity to reach young people, and this may only increase in the coming years as health reform initiatives emphasize “health homes.”

For gatekeeper training, the main open question is how changes in knowledge and attitudes translate to actual supportive behaviors and linkage to appropriate services. Given the many varieties of training programs available, it will also be important to understand the comparative effectiveness of these alternatives. Related to this, research is needed to determine who the best gatekeepers are in campus communities, and what the marginal returns are to more intensive trainings.

6. NEW DIRECTIONS FOR THIS GENERATION OF STUDENTS

While current interventions are making progress in addressing students' help-seeking, new strategies should also be considered that take into account evolving knowledge and attitudes toward mental illness among young people. This is particularly true for the large number of students who are not using services despite reporting positive attitudes and beliefs about treatment. Current conceptual frameworks and empirical evidence appear to be insufficient for understanding these students' help-seeking behavior. From an intervention standpoint, only a nudge of some kind, rather than a major shift in attitudes, may be all that is required.

It may be useful to consider lessons from other health behaviors for which there is a discrepancy between what people know is beneficial for their health, and what they actually do. Diet and exercise are two prime examples.^{45,46} It is well known that diet and exercise affect health, and in general there seems to be little if any stigma attached to healthy diet and exercise. Yet most people fall short of minimal standards for healthy eating or exercise.^{47,48} As new generations of young people are increasingly familiar and comfortable with mental health services, help-seeking for mental health may be increasingly viewed as normal and desirable behavior to take care of one's health, much like diet and exercise.

A key barrier to healthy eating and exercise is a tendency to place disproportionate weight on the present relative to the future—this is often referred to as present-orientation or discounting the future. For many people, healthy eating and exercise involve a sacrifice in the present in order to

gain better health in the future. Similarly, seeking help for mental health involves short-term costs (e.g., time, energy, money, embarrassment or shame) with the expectation of better health in the future.

There is nothing inherently pathological about present-oriented preferences, and in fact the large majority of people exhibit some degree of this preference.⁴⁹ There is more solid ground for intervention, however, when people exhibit a particular form of present-orientation in which they contradict themselves over time: “time-inconsistent preferences.”⁵⁰ This can lead to procrastination of behaviors as a person’s present-centered “self” continually overrides her long-run preferences. For example, a person may decide that her optimal behavior is to eat pizza and watch television today, and begin a healthy diet and exercise tomorrow. When tomorrow arrives, the person may reevaluate her optimal behaviors, and again decide on pizza and television today, and healthy diet and exercise tomorrow. After years of this type of procrastination, this person may regret that she never was able to start or maintain a healthy diet and exercise.

It is easy to imagine college students procrastinating mental health care and other healthy behaviors. Unlike most of their activities (classes, assignments, exams, meetings, parties, sports events, etc.), taking care of one’s mental health does not typically have a deadline or even a place on the to-do list. For health behaviors such as diet and exercise, interventions have been somewhat successful at addressing procrastination by offering people various commitment devices or by restructuring incentives. For example, paying the large upfront cost of a gym membership can be thought of as a commitment device for exercise.⁵¹ It remains to be seen

whether there are analogous ideas that might be effective in the context of help-seeking for mental health among college students. As a speculative example: perhaps students could be offered a software program that locks their computer or smartphone from use at regular intervals until they answer brief questions related to their mental health. These brief questions might pertain to the student's mental health status as well as potential actions or goals related to improving mental health. Students who acknowledge their tendency to procrastinate healthy behaviors might voluntarily install such programs as a commitment to themselves.

A broader analysis of interventions to increase healthy eating and exercise offers additional ideas that might be applied to help-seeking for mental health. A meta-analysis of 122 interventions for diet and exercise found that interventions were particularly effective when combining self-monitoring (e.g., keeping a record of specified behaviors in a diary) with at least one other self-regulation technique (prompting intention formation, providing feedback on performance, prompting specific goal setting, or prompting review of goals).⁵² In the context of mental health among college students, a program emphasizing self-monitoring and self-regulation techniques could be integrated, for example, with the web-based systems that most campuses are now using to manage course schedules, assignments, and resources.

Another potential intervention strategy relates to the “default bias” or “status quo bias.” Particularly when people do not have strong pre-existing preferences about their options, the default can be powerful. For example, people are dramatically more likely to be registered as organ donors in countries with opt-out systems, in which people are assumed to be in the program unless they actively opt-out, as compared to countries like the United States with opt-in

systems, in which are assumed to be out unless they opt-in.⁵³ In the context of help-seeking for mental health, this might take the form of introducing opt-out mental health check-ups for students. Also, screening programs could generate automatic opt-out appointments for students with positive screens, rather than count on the student to schedule the appointment.

Research in cognitive psychology offers a number of additional insights that may be relevant to help-seeking interventions. Students with limited or no experience with mental health services may face subtle cognitive barriers to help-seeking. People rely heavily on the ease with which examples come to mind to make judgments about how common or probable future events are.⁵⁴ Also, people who imagine an event judge that event more likely to occur.⁵⁵ Imagining an event that may occur in the future involves the same brain systems used to remember a past event.⁵⁶ The influence of prior exposure also extends to preferences: information that individuals have been exposed to in the past is viewed more favorably than new information.⁵⁷ Collectively, this research suggests that initiating mental health services for the first time may be stymied on a cognitive level, even if people hold positive beliefs and attitudes in the abstract. Given the degree to which we base our future behavior on past experience, new intervention approaches may try finding a way to prepare students cognitively to seek help, by having them imagine the event before it occurs. For example, students may be more likely to seek help if they are presented with a reading or video that illustrates an experience with mental health services for someone facing a similar set of issues.

7. CONCLUSION

Most college students with mental health problems are not receiving treatment. This lack of treatment stems from a wide range of factors, and in this review we focused on factors most directly related to the individual's decision about whether to seek help. Current intervention approaches to help-seeking in the college setting emphasize knowledge and attitudes about mental illnesses and treatment options, and this emphasis is consistent with conceptual models and epidemiological data on help-seeking.

The evidence base for these approaches needs to be strengthened significantly, however. Furthermore, new approaches should be explored, because knowledge and attitudes may not be the primary barriers for a large proportion of the current generation of students who fail to seek help. For this group of students insights may be especially useful from research on other health behaviors such as diet and exercise, as well as from behavioral economics and cognitive psychology. A more effective overall set of strategies will yield great benefits to young people and society overall, given the high burden of mental disorders and the prime opportunity for intervention in college populations.

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