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A REVIEW OF STRATEGIES TO COMBAT MENTAL HEALTH CONCERNS
AMONG COLLEGE STUDENTS

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ABSTRACT

Within the past 20 years, mental health concerns and demand for mental health services has increased on U.S. College campuses. With 75% of lifetime mental health issues presenting in young adult years and higher education enrollment rates increasing, colleges and universities around the country are taking steps to combat the mental health issues of their students. In particular, large universities, categorized as having an enrollment of over 10,000 students, face the added challenge of meeting the needs of large student bodies, especially as the demographics of college students are diversifying. This thesis reviews the status of mental health among today's college students, reasons why demand for services is increasing, and strategies in place to combat these issues. Specifically, five Big 10 Universities' counseling centers and programs are reviewed, including Penn State-University Park. These larger universities face unique challenges when reaching 40-50,000 students on one campus. With this fundamental understanding, review of effective strategies, and look into different Big 10 school's programs, key takeaways and recommendations are made for Penn State-University Park and large universities alike to continuously improve approaches for addressing student mental health needs.

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Chapter 1

Purpose

Worldwide, nearly half of our population is affected by mental illness and nearly one-third of undergraduate students experience a mental health problem during their college years—most commonly depression and anxiety (National Alliance on Mental Illness [NAMI], 2012). About 75% of lifetime mental illnesses present by the mid-20s, and with about half of all young adults attending college, approaching and dealing with mental health issues among the college student population is critical. The implications for untreated mental health concerns not only have an impact on individual students, but also campuses as a whole (Lipson, Gaddis, Heinze, Beck & Eisenberg, 2015). Over the past years, 96% of counseling directors have seen an increase in the number of students with severe psychological problems (Gallagher, 2011). University officials, policy makers, and campus counselors must approach and continue to deal with the increase in overall demand in mental health services (Mowbray, Megivern, Mandiberg, Strauss, Stein, Collins, et al., 2006).

For large universities like Penn State-University Park, a public, research university in Central Pennsylvania with a total enrollment of over 46,000 undergraduate and graduate student (Penn State University Budget Office, 2018), this increasing demand can be especially challenging. Research shows large universities, categorized as universities with over 10,000 enrolled students, have lower treatment utilization rates than small or medium-sized campuses (Lipson et al., 2015). Administrators and

counseling staff must take proactive steps to meet student needs and keep mental health a leading priority (Simon, 2017).

These statistics clearly indicate the demand for mental health services, as well as overall rates of mental health concerns, are increasing on U.S. college campuses. This review will present an overview of college students' mental health status and why mental health service demand is increasing. Using a multi-level approach, this paper also aims to evaluate effective strategies across the U.S. and present suggestions for future practices to combat mental health concerns among U.S. college students, with particular focus on Penn State-University Park and other large universities.

Chapter 2

Introduction

College Student Mental Illness Prevalence

According to the National Alliance on Mental Illness (NAMI), more than 1 in 4 college students have been diagnosed with or treated by a professional for a mental health concern or condition within the past year (2012). Yet, only 26% of students who need counseling services actually utilize them (Center for College Mental Health's [CCMH], 2016*).*

There are several reliable sources for gauging the prevalence on mental illness among college campuses. The American College Health Association-National College Health Assessment (ACHA-NCHA II) and the Center for College Mental Health (CCMH) Annual Reports offer insight and data on the overall trends of physical and mental health statuses of college students. The American College Health Association (ACHA) is a national research survey, which began in spring 2000. It is a bi-annual report on overall college students' health status and concerns, evaluating habits and behaviors, such as alcohol and sexual behaviors, vaccination prevention, etc. (2016).

The Center for Collegiate Mental Health's 2016 Annual Report is the largest and most comprehensive report on university counseling centers and college students receiving mental health services. Unlike the ACHA-NCHA II, this report is not a survey, but rather de-identified data gathered from clinicians and counseling centers to describe 150,483 college students receiving mental health treatment from over 400 institutions in the United States.

Statistics from the ACHA-NCHA II Undergraduate Fall 2016 Report on mental health status of college students are alarming and, along with the CCMH data, illustrate the prevalence on college campuses. From the reports, 52.7% of students reported that they "felt things were hopeless" over the last 12 months, with 22.7% reporting the feeling in the past two weeks. Furthermore, 87.3% of college students reported they "felt overwhelmed by all [they] had to do" in the last 12 months, with 58% reporting the feeling in the past two weeks. These responses depict the implications of the pressures and stresses many college students feel. The survey collected data for other feelings, including "very sad," "overwhelming anxiety," "overwhelming anger," and 39.1% reported they "felt so depressed that it was difficult to function" and 11.2% reported they have seriously considered suicide in the last 12 months (ACHA, 2016).

The top concerns among college students, as reported by the CCMH Annual Report, were anxiety and depression (2016). Other concerns seen in campus counseling centers include relationship problems, stress, interpersonal functions, academic performance, and grief/loss (CCMH, 2016).

Despite these reported levels of mental health strains, only a fraction of students regularly take advantage of available, on-campus mental health resources. The CCMH Report also provides information on how the counseling centers and systems on campuses operate. Most often, students use just one appointment per year, but almost 20% of clients used over 56% of all appointments at the surveyed CCMH centers. The top five percent of clients utilized 7.1% of appointments, which on average is about 27 appointments per year (CCMH, 2016).

Treatment Seeking Barriers

Previous research from the ACHA indicates less than half of students who need mental health care utilize services, even when available on campus (2016). The reasons for the underutilization are vast, but include cost, lack of knowledge, and stigma to name a few. These barriers reduce the likelihood students will seek treatment (Vidourek, et al., 2014). Research on underutilization is extensive, but the following information aims to give an overview of the range of barriers college students face, leading to underutilization of services.

Personal Attitudes and Beliefs

Individual-related barriers include personal attitudes and beliefs. Lack of perceived need and belief that stress is normal among college students are two of the most common reasons for underutilization. Students may also be skeptical of treatment, believing seeking help will not solve their problem (Eisenberg, Down, Golberstein & Zivin, 2009).

Lack of knowledge can significantly affect utilization of services, as well. This lack of knowledge can surround mental illness and the mental health system as a whole, or more specifically, how treatment can help individuals with their individual mental health concerns (Storrie, 2010). These specific barriers demonstrate the need for educational interventions and social marketing techniques to promote available resources on college campuses.

Stigma

In 1999, the U.S. Surgeon General pointed to stigma as a barrier to mental health care, making it clear that stigma must be reduced in order to improve access to care and reduce burden (Satcher, 2007). Although better today, stigma still remains a barrier for individuals seeking mental health services and it is not just limited to the college setting (Golberstein, Eisenberg & Gollust, 2008). Stigma, impacted by preexisting stereotypes, prejudice, and discrimination, can stem from personal beliefs or perceptions of the public's beliefs. Eisenberg et al.'s (2009a) research shows perceived public stigma— what individuals believe others think—is significantly higher than personal stigma, or what people actually believe themselves. While public stigma remains high and reducing public stigma is important, there is also a need for increased self-efficacy techniques, as research shows personal stigma inhibits utilization of mental health services more than overall stigma.

Access Barriers

According to Healthy People 2020, accessing health services is imperative to achieving the best health outcomes and colleges should limit the barriers that exist preventing access to health services. Two ways to achieve this are by providing the needed services and meeting needs in a timely manner. This helps eliminate disparities and improve patient outcomes (Office of Disease Prevention and Health Promotion,

2018). Access barriers can stem from high cost, inconvenient locations, and lack of service availability.

Based on research from 2015, cost was significantly correlated with not seeking help. Data from the National Comorbidity Study found 47% of people with mental health concerns do not receive care due to cost (Rowan, McAlpine & Blewett, 2013). An online survey concluded similar results, pointing to cost as a common reason young adults do not seek mental health services (Czyz, Horwiz, Eisenberg, Kramer & King, 2013). Although many universities offer free or low-cost care, cost remains a considerable barrier and even a small fee may deter distressed students (Marsh & Wilcoxon, 2015).

Location of campus counseling centers can also play a role in students' treatment seeking. Counseling centers located centrally on campus are logistically beneficial, but can also deter students who are concerned about privacy and perceptions around receiving treatment or seeking help. The same research suggests integrating services or creating networks of health services in one building as potential solutions for college campuses (Cunningham, Zipursky, Christensen, Bieling, Madsen, Rimas, et al., 2017).

Implications of Untreated Mental Health Concerns

Untreated mental health issues have negative consequences for an individual and can have poor implications on a university as a whole. Research shows individuals who screen positive for depression are at twice the risk for dropping out and mental health issues correlate with lower grade point averages (Lipson, et al., 2015).

Mental health concerns can also affect a students' physical well-being. Students may have poorer sleep habits, leading to decreased concentration and difficulty staying awake. Furthermore, students with mental illness are also less likely to engage in physical activity and have poorer eating habits. This can lead to more sickness and greater need for health care services. (Campus Health and Safety, 2005).

Untreated mental illness has other ramifications on universities as whole. Poor mental health among students can lead to dropout, resulting in lower aggregate tuition payments. Research shows that every dollar invested in mental health programs and services could yield up to $2 in tuition revenue and more than $4 in student earnings, from staying in school (Eisenberg, Golberstein & Hunt, 2009). In a broader sense, research shows that the U.S. loses approximately $193 billion in earnings per year from serious mental illnesses (Holmes, 2016).

According to NAMI, universities may utilize a variety of methods to help students stay in school, including accommodating student needs, connecting students to providers in a timely manner, promoting peer-run support groups, assisting with medical bills, and providing transportation (2012). The presented data shows the importance of ensuring new and innovative resources are available to students of all backgrounds. This data and information encompasses the large-scale prevalence of mental illness in college students. Understanding the most common conditions and needs of students, as well as barriers they face when seeking services, can and should inform recommendations for future public health practices.

Chapter 3

Historical and Current Trends

The first college health program appeared in 1861 at Amherst College. Yet, almost 50 years passed before a mental health service center was organized at Princeton University, attempting to combat the issue of qualified students leaving school for personality and emotional issues. Since 1920, the American College Health Association has emphasized the importance of promoting mental hygiene and has laid out guidelines and suggestions for colleges around the country (Kraft, 2011).

Over the past two decades, there has been an increase in college enrollment among young adults and a rise in psychiatric diagnoses in younger adults (Mowbray, et al., 2006). In 2000, data showed 16% of counseling center clients had severe psychological problems, including depression, anxiety, suicidal ideation, or eating disorders from the National Survey of Counseling Center Directors (NSCCD). This same survey reported that statistic increasing to 44% in 2010 (Eiser, 2011). Even more recently, the Center for Collegiate Mental Health Report, published by Penn State University, reported an average increase of 40% in service utilization between 2010 and 2015 (2016).

Research points to many different reasons for these increasing trends. To begin, mental health treatment is improving with new medications and management options. More students with pre-existing mental health concerns are enrolling and succeeding in college with appropriate management. As these students continue to enroll, they are expected to utilize campus counseling services (Simon, 2017).

Today's college students are also increasingly diverse and these changing demographics are leading to different treatment needs for students with more multicultural and gender issues (Kitzrow, 2009). Historically, campus counseling centers typically saw students needing assistance with transitioning into college life. Today, counseling centers have reported seeing an increased number of students with more severe psychological issues.

Although there is no single factor contributing to increases in mental health issues and need for services, these changes depict just how important it is for universities to take action—now more than ever. College students are a "transient" population and their needs are not the same today as twenty years ago (Lipson, et al.,2015). With this in mind, only articles written after 2000 were chosen for the Narrative Review to address the most current needs and demands of college students and their mental health needs.

Chapter 4

Methods

This narrative review includes 11 peer-reviewed articles collected mainly from ProQuest and EBSCOHost online databases, made available by Penn State University Libraries. Key search terms included *mental health, college, university, stigma, at-risk, and program.* Only peer-reviewed journal articles published after 2000 that presented an intervention program were reviewed. The reference sections of identified articles were also scanned to find other peer-reviewed articles. Selected articles were included if they presented an intervention program that: a) targeted college students (undergraduate or graduate students); b) aimed at improving mental health status or perceptions; c) were located in the United States; d) and occurred after 2000. After scanning titles and abstracts of identified articles, 11 were chosen to review.

Each article was identified as an intrapersonal intervention or a community intervention (see next section for definitions), based on their target population and protocol. Five were identified as intrapersonal interventions and six were identified as community interventions. Figure 1 presents the reviewed articles and their categorization.

Table 1. Narrative Review Articles

Intrapersonal Interventions	
Title	**Author**
Addressing the mental health concerns of international students	Sakurako, M., 2000
An Interactive Web-Based Method of Outreach to College Students at Risk for Suicide	Haas, et al., 2008
Online Suicide Risk Screening and Intervention With College Students: A Pilot Randomized Controlled Trial	King, et al., 2015
Pilot trial of gender-based motivational interviewing for increasing mental health service use in college men	Syzdek, et al., 2016
Reexamining LGBT Resources on College Counseling Center Websites: An Over-time and Cross-country Analysis	McKinney, et al., 2015
Community Interventions	
Title	**Author**
A Randomized Controlled Effectiveness Trial of Acceptance and Commitment Therapy and Cognitive Therapy for Anxiety and Depression	Forman, et al., 2007
Comparing the effects of live and video-taped theatrical performance in decreasing stigmatization of people with serious mental illness	Faigin & Stein, 2008
Impact of acceptance and commitment therapy versus education on stigma toward people with psychological disorders	Masuda, et al., 2007
Initial Evaluation of Active Minds: A Student Organization Dedicated to Reducing the Stigma of Mental Illness	McKinney, K., 2015
Putting the person back into psychopathology: an intervention to reduce mental illness stigma in the classroom	Mann & Himelein, 2008

Chapter 5

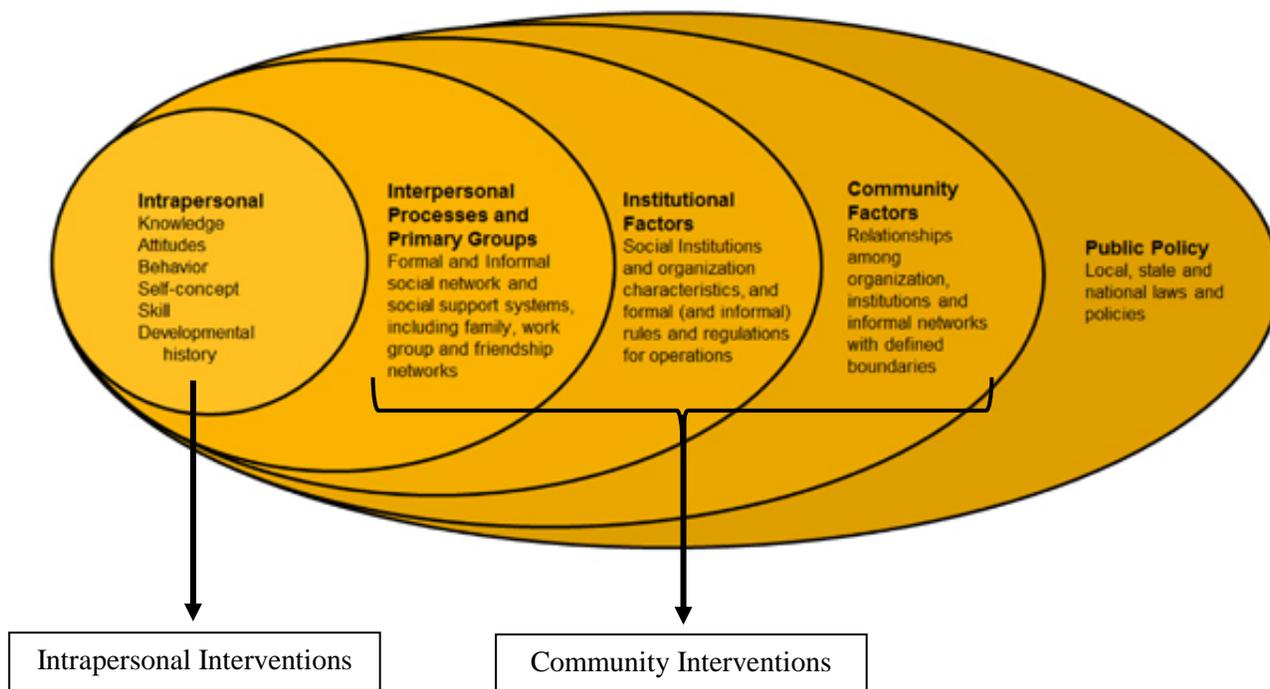**Interventions Programs: Narrative Review**

The Ecological Model of Health is a multi-level approach to health that seeks to evaluate the different determinants of health, from individual factors to environmental and policy factors (McLeroy, Bibeau, Steckler & Glanz, 1988). As a multifaceted approach is taken, the different levels of the Ecological Model are important to understand for this review. There are five levels of the Ecological Model: intrapersonal; interpersonal processes and primary groups; institutional factors; community factors; and public policy (McLeroy, et al., 1988).

Mental health prevention and intervention programs take different approaches and each specifically target a different level or levels of the ecological model. A mental health intervention may seek to decrease stigma across a college campus—an institutional level factor, or promote knowledge of available resources and services among students—an intrapersonal factor.

The following Narrative Review will utilize the Ecological Model to categorize different prevention and intervention programs. With the Ecological Model in mind, interventions were categorized as *Intrapersonal Interventions* if the program aimed to improve knowledge, personal attitudes, or behavior, especially among higher-risk or at-risk students. *Community Interventions* were categorized by interventions that promoted social skills, peer networks, or improvement of the overall atmosphere of the college campus. Figure 1 illustrates the categorization based on the Ecological Model for this particular Review.

Figure 1. Ecological Model

Retrieved from the American College Health Association (2018).

Intrapersonal Knowledge Attitudes Behavior Self-concept Skill Developmental history	**Interpersonal Processes and Primary Groups** Formal and Informal social network and social support systems, including family, work group and friendship networks

Institutional Factors Social Institutions and organization characteristics, and formal (and informal) rules and regulations for operations

Community Factors Relationships among organization, institutions and informal networks with defined boundaries

Public Policy Local, state and national laws and policies

Intrapersonal Interventions

Community Interventions

Intrapersonal Interventions

Intrapersonal intervention programs promote individual characteristics, such as knowledge, attitudes, and self-concept. For most mental health interventions targeting intrapersonal factors, high-risk or at-risk students were the target population. Increasing knowledge, attitudes, and self-concept promotes treatment and help seeking. The five reviewed articles reached their goals in different ways, ranging from reducing personal stigma to facilitating access into treatment.

Online intervention programs, seeking to target at-risk students, showed promising results. Two interventions, utilizing different web-based programs, had a goal of promoting treatment-seeking behaviors among students at risk for suicide. In the first

intervention, King and colleagues (King, Eisenberg, Zheng, Czyz, Kramer, Horwitz, et al., 2015) instituted Electronic Bridge to Mental Health Services, or eBridge, at a large public university. eBridge is an online-delivered program that identifies students with elevated risk for suicide and facilitates their entry into treatment.

An initial questionnaire, sent to over 7,000 students, utilized different assessments, including Patient Health Questionaire-9 (PHQ-9) questions for depression and suicidal ideation, Alcohol Use Disorders Identification Test (AUDIT) questions for alcohol abuse, and Discrimination-Devaluation Scale (DDS) questions for perceived levels stigma. Of the 1,744 students who completed the questionnaire, 116 students screened positive for suicide risk based on at least two of the following: suicidal thoughts, history of suicide attempt, depression, and alcohol abuse.

These high-risk students were assigned to either the eBridge program or a control group, which did not receive the online program intervention. Both groups received information regarding mental health and the resources available. Those in the eBridge group received personalized feedback within 24 hours and were given the option to begin a confidential online discussion with a counselor (King, et al., 2015).

Another web-based, interactive intervention program was carried out on two other college campuses—one small, private university and one large, public university (Haas, Roseberg, Moore, Garlow, Sedway, Nicholas, et al., 2008). Like the eBridge program, students were sent an official email from the university asking for participation in the program. Students responded to PHQ-9 questionnaire and identified as a Tier 1, Tier 2, or Tier 3 (highest risk) based on their automatically generated depression score from their responses. Students identified as Tier 2 or Tier 3, the highest-risk groups, were given a

personalized assessment in response from a professional counselor and encouraged to come in for an in-person evaluation (Haas, et al., 2008).

Both intervention programs delivered online identification of at-risk students on college campuses and gave feedback to the individuals who were high-risk and encouraged those particular students to come in for treatment at the counseling center. The intervention from both studies showed positive results. Students assigned to the eBridge program had significantly higher levels of readiness to seek help and were more likely to see a mental health professional. Students who participated in the outreach program by counselors at both universities were also much more likely to seek treatment. Based on a post-survey sent to participants, 82% of participants responded that the outreach they received affected their decision to seek treatment (Haas, et al., 2008).

Limitations of both of these studies include low response rates and a short follow-up period. Despite these factors, the results of the online outreach programs were promising. Potential impacts of web-based programs could be extremely beneficial on college campuses, as students are apt to receive and respond to online emails. Campuses are struggling with access to the needed resources for long-term treatments, especially at large universities, but web-based counseling and other clinical services are attractive due to their greater convenience, privacy, scalability, and affordability (Haas, et al., 2008).

Although web-based programs are convenient and attractive, universities must spend a great deal of time in addressing the possible consequences and areas of contention. Few clinicians are trained in text-based communication. Delivering counseling via the web does not allow verbal cues to be assessed and wording must be

carefully addressed. Additionally, non-face-to-face communication may lead to delayed response in an acute crisis (Haas, et al., 2008).

Intrapersonal interventions also utilized effective methods to target vulnerable or at-risk populations. From CCMH data, vulnerable or high-risk populations for mental health issues include international students, males, and the LGBT+ community (2016).

Research shows the lesbian, gay, bisexual, and transgender (LGBT+) community are highly affected by the perception of hostile climates on college campuses. Because of this, online communication and material may be crucial and attractive to outreaching to this specific population. McKinney, Luo, Wright & Kraus (2015) examined the impact of a university's counseling center website on the LGBT+ community and their treatment seeking, based on a comprehensive content analysis of counseling center websites. Counseling center websites provide a "significant resource" to promote help seeking among the LGBT+ community, due to its anonymity and convenience. Their research showed only half of reviewed websites had any information regarding LGBT+ issues or services. This leaves a large gap for improvement and an opportunity for universities to leverage digital platforms to promote resources and outreach, specifically geared toward the LGBT+ community.

Males are also considered a vulnerable population in terms of mental health issues because they internalize symptoms and underutilize services. Syzdek, Green, Lindgren & Addis (2016) utilized gender-based motivational interviewing (GBMI) to increase mental health service utilization among college males. Motivational Interviewing (MI) has proven effective for a variety of health behaviors, including treatment engagement for mental health issues, by encouraging positive behavior change, despite conflicting and

preexisting attitudes and factors (American Psychiatric Association, 2017). GBMI, derived from MI, attempts to breakdown masculine social norms and resistance for help seeking by promoting empathy and self-efficacy (Syzdek, et al., 2016).

For this intervention, 34 participants were assigned to a no-treatment control group or the GBMI group. Participants in the test group met with a clinician for the GBMI who worked to reframe stigma surrounding masculine norms and help seeking. Although preliminary, the results of the GBMI intervention were promising, as participants were more likely to seek help from professionals, as well as from family and friends (Szydek, et al., 2016). This type of intervention may reduce the psychosocial barriers of seeking help, while improving personal attitudes and beliefs.

International students are also a university population at greater risk for psychological issues. This group of students often face distinctive sources of stress, including adapting to a new environment, language barriers, and financial difficulties, which may lead to confinement within their own national and cultural groups. These added stresses may manifest into physiological conditions from stress, cognitive fatigue, and academic underperformance or failure. Research shows significant underutilization of mental health services from this group, potentially from lack of information, leading to skewed expectations or lack of knowledge regarding access (Sakurako, 2000).

There are a variety of effective methods to promote utilization of mental health services among this population, including physical location of counseling centers, offering services in multiple languages, and proactive outreach methods. Interestingly, unlike other at-risk populations, international students are familiar with the hierarchical relationships that exist in their own cultures and may respond better when the counselors

take a more "formal" role, signifying authority and expertise, at least at the beginning of counseling (Sakurako, 2000).

Community Interventions

Community interventions are identified as programs in place focusing on a broader target audience. Their focus is more widespread across campuses and aimed to foster relationships, decrease public stigma, and promote an overall better campus climate. Six interventions were reviewed; psychoeducation, behavioral therapies, and campus organizations were among the most common forms of community education.

Multiple studies investigated the effect of different intervention programs in comparison to educational programs. *In Our Own Voice,* is a first-person narrative presentation by the National Alliance on Mental Illness aimed at lowering stigma, specifically for bipolar disorder (NAMI, 2018). This presentation showed promising results on a college campus in reducing participants' stigma levels of individuals with bipolar disorder after viewing the presentation, compared to those who received a psychoeducation intervention via a lecture given by a clinical psychologist (Mann & Himelein, 2008). Utilizing personal connection and interactions has shown to be effective in reducing stigmatization surrounding mental health.

Faigin & Stein (2008) presented an intervention in which a live, theatrical presentation was presented to college students, aiming to improve student's attitudes and tolerance towards mental illness. In this intervention program, 303 students were assigned to three groups: a live performance (direct contact), a video of the same performance (indirect contact), or no presentation (control group). Consistent with the *In*

Our Own Voice presentation results, participants exposed to the live performance had more positive attitudes, greater tolerance, and better behavioral intention towards those with mental illness compared to the other two groups, who did gain direct contact to individuals with mental illness (Faigin & Stein, 2008).

In a 2007 study by Masuda, Hayes, Fletcher, Seignourel, Bunting & Twohig, et al., a traditional psychoeducation group was compared to a group who received acceptance and commitment therapy (ACT). ACT, a new and growing form of cognitive behavioral therapy, aims to increase psychological flexibility, or one's ability to adapt to situations and shift perspective, by utilizing acceptance and mindfulness strategies and behavior change (Hayes, 2017). Compared to the traditional psychoeducation group, the students randomly assigned to the ACT group showed reduced levels of stigma in the post-test, compared to the psychoeducation group, delivered in a 150-minute workshop setting (Masuda, et al., 2007).

Forman, Herbert, Moitra, Yeomans & Geller (2007) also examined the result of ACT, compared to cognitive behavioral therapy (CBT). CBT, a common tool in mental health counseling, is a form of structured, talk therapy wherein therapists help alter negative thoughts or beliefs surrounding a situation, with the hope of restructuring the way people view negative or challenging situations (Mayo Clinic, 2017). This intervention was delivered in an outpatient-counseling center. With 109 participants assigned to either traditional cognitive behavioral therapy or ACT, results indicated ACT to be just as effective as cognitive behavioral therapy—the gold-standard in treating a range of disorders, including depression, anxiety, and eating disorders (Forman, et al., 2007).

Masuda et al.'s study also tackled the idea of psychological flexibility. Individuals who are *psychologically inflexible* exhibit greater psychological issues and, further, tend to be less affected by mental health interventions. These individuals may avoid new experiences and display inaction (Masuda, et al., 2007).

Campus organizations and student groups were also considered as community interventions. These types of interventions ranged from non-formal, student meetings to promote discussion about mental health issues to more formal peer support-groups, often facilitated by counseling centers. For example, Active Minds is a national organization with over 400 campus chapters. In a study by McKinney (2009), 136 students from three different undergraduate classes were evaluated throughout a semester. From all classes, 27 participants involved with the campus club were compared to 109 study participants who were not involved with the campus club for levels of stigma and willingness to seek help. A pre-test was given to participants at the beginning of the semester and a post-test at the end of the semester. Based on the questionnaire, active members of the Active Minds club showed significantly lower levels of stigma at the end of the semester and a greater score of willingness to seek help (McKinney, 2009). This points to the fact that peer-led support groups can be cost-efficient, effective ways to promote discussion and decrease stigma surrounding mental health.

Kognito, although not a campus organization, is a service available to students at a variety of colleges and universities. Offered at schools around the country, and a few Big 10 Universities, this service, which offers simulated conversations with virtual humans, allows users to choose appropriate responses and dialogue for peers who are struggling with mental health concerns. A longitudinal study, conducted between May

2011 and January 2013 investigated Kognito's effectiveness in promoting mental health skills and improving self-referral rates among 270 students at 20 institutions (Albright, Goldman & Shockley, 2013). Based on results from pre- and post-tests, participants showed significant increases in mental health skills—including identifying and referring classmates who exhibit mental health issue signs, and increasing self-referral rates. These skills increase treatment utilization and those changes showed to remain when a follow-up was given three months later. Promoting self-efficacy and skills to talk to struggling peers and friends on college campuses is vital. Friends, peers, and classmate are on the frontline of defense when it comes to helping struggling college students.

This review demonstrates the vast array of types of interventions universities currently implement on their campus. They range in protocol, but ultimately all have the same goal of improving mental health status or climate on their campus by focusing on a range of intrapersonal or community factors. Understanding existing effective intervention programs can assist university administrators and counselors in tailoring the next generation of interventions for their specific student populations.

Chapter 6

Review of Big 10 Universities' Mental Health Services

In addition to the literature review, Big 10 Universities' mental health services were reviewed, in order to view a snapshot of procedures, policies, and efforts made by other large universities similar to Penn State-University Park. With this information, informed and meaningful recommendations for Penn State-University Park and other large universities can be made.

Penn State-University Park's services were also evaluated and for consistency purposes, the review of the Big 10 schools was conducted with four universities that most resembled Penn State's demographics. These schools included University of Illinois at Urbana-Champaign in Champaign, IL; University of Michigan-Ann Arbor in Ann Arbor, MI; Michigan State University in East Lansing, MI; and Purdue University in West Lafayette, IN. The review was completed by researching universities' student population and professional counseling staff members, as well as initial appointment protocol, wait time, provided services, outreach efforts, cost, and other notable resources offered to students via their respective campus counseling websites.

Table 2 represents the student population of each university, based on U.S. News & World Reports data (2017), and the number of total staff members in its respective campus counseling center (Bender, 2016).

Table 2. Big 10 Schools: Population & Counseling Staff

University	Counseling Staff Members	Student Population	Ratio (students : staff)
Michigan State University	40	50,344	1 : ~1,258
Penn State University	48	47,789	1 : ~995
Purdue University	42	40,451	1 : ~963
University of Illinois	68	46,951	1 : ~690
University of Michigan	54	44,718	1 : ~828

According to Ben Locke, senior director of Counseling and Psychological Services at Penn State University, the ideal counselor-to-student ratio is 1 : 1,000 – 1,500 (Simon, 2017). Based on the reported numbers, the five Big 10 Universities reviewed met this suggestion.

Initial Appointment Protocol

As shown by the discussion of barriers students face when seeking treatment, lack of utilization is common among college students. This may be due to cost, lack of perceived need or severity, or time constraints. Easy access to services is vital for students seeking treatment. Each university has a different process for students to schedule an initial appointment at their counseling center. The first step for accessing services is accomplished in a variety of ways, ranging from a phone call, online form, or physical form.

The University of Illinois and Michigan State University implemented a system wherein a provider can see students who are seeking services for the first time that day. At the University of Illinois, students call the counseling center and are then able to be seen the same day (Student Affairs at Illinois, 2015) while at Michigan State University,

students go to Counseling and Psychological Services (CAPS) to fill out initial intake forms, then are seen within 15-60 minutes by a provider (Michigan State University, 2017).

Purdue University, University of Michigan, and Penn State University do not provide same-day initial appointments and all use different methods to see students initially in their counseling centers. Purdue University utilizes an online system to complete an initial assessment. Then, students are able to schedule an appointment with Counseling and Psychological Services via their online scheduling service. Similar to Purdue, Penn State University completes an assessment before seeing patients in-person at the counseling center. Penn State students complete a 10-15-minute phone screening and then given options for next steps (Penn State Student Affairs, 2017). The University of Michigan implements a system in which students physically go to the counseling center to fill out an initial intake form and then are seen by a provider within 1-5 days (University of Michigan Student Life, 2017b).

Provided Services & Outreach Efforts

Because of increased demand and the time-sensitive nature of some mental health needs, counseling centers are increasing their rapid-access care and services. According to the Center for Collegiate Mental Health's Report, there has been a 28% increase in emergency services over the past six years (Johnson, 2018). Consistent with this statistic, all five Big 10 universities offer an emergency hotline for after-hours emergencies and a crisis line. Additionally, all of the counseling centers offered individual and group

counseling. They also all offer some form of workshops or group programs, ranging in topics from alcohol use to time management.

Each university takes a different approach to outreach and awareness efforts around their available workshops, programs, and information sessions to different students organizations, academic departments, residence halls, etc. The range in topics is also wide, ranging from dealing with stress, roommate and other interpersonal conflicts, time management to coping with loss.

Notably, the University of Illinois has a Counseling Center Paraprofessionals Program (CCPP) in which students, from all academic colleges, are trained in communication and skills to provide services to other students. They provide outreach services and programs, dealing with topics like eating disorders, alcohol and drug use, trauma outreach, study skills, healthy relationships, and international student outreach (Student Affairs at Illinois, 2017). Similarly, the Wolverine Support Network (WSN) is a student organization providing peer support and is led by students. The WSN works to create a supportive community and diminish stigmas surrounding mental health issues (University of Michigan Student Life, 2017c).

The University of Illinois also provides an online service, Kognito, which is a service that delivers online, realistic videos. Users are able to "chat" with a friend who is suffering from a mental health issue and decide the best and most appropriate way to interact. Kognito is a company that offers a range of these types of realistic, interactive, educational videos targeted to teachers, school administrators, nurses, doctors, and other professionals. The University of Illinois provides the specific videos that help students interact with their struggling peers (Student Affairs at Illinois, 2018b).

The University of Michigan has a CAPS Student Advisory Board made up of University of Michigan undergraduate and graduate students who advise the counseling center on student outreach efforts, have a part in the organization's decisions, and staff searches. The Student Advisory Board has helped improve accessibility of CAPS via educational videos, worked on the CAP's website, and developed a mobile application for students (University of Michigan Student Life, 2017a).

To combat the mental health concerns of a wide range of students, including those at-risk populations, many Big 10 counseling centers have taken steps to appeal to LGBT+, international, and other higher risk populations. According to the CCMH 2016 Report, 5.4% of counseling center clients were international students (CCMH, 2016). Purdue University's website reveals they offer counseling services in Dutch, Thai, Spanish, Mandarin, and English, thanks to a diverse staff (Purdue University, 2017). The University of Illinois encourages students to bring an English dictionary or fellow English speaker if they are not fluent, according to their website (University of Illinois International Student & Scholar Services, 2018).

Michigan State University has an International Student & Scholar Support Program (ISSP) that International students, faculty, staff, and researchers can use to contact an advisor who speaks any language. As of September 2017, this resource was launched and made available for access 24/7 via a mobile application, website, or over the phone. Students and Scholars are able to connect with an International Student Support Advisor immediately and the tool is completely free, made possible by Morneau Sheepell, an international counseling organization (Michigan State University Student Health Services, 2017).

For LGBT+ students, all reviewed universities have a specific Resource Center on campus. Yet, information was more difficult to find regarding specific counseling for LGBT+ students on the campus counseling websites. Among the campus counseling websites reviewed, Michigan State University did note an LGBT+ Liaison who available at their Counseling center to discuss gender identity (Michigan State University LGBT+ Resource Center, 2018).

Although not a fully comprehensive review, this information displays the wide range of actionable steps campuses are taking to offer services to all students. With large student populations, workshops and group sessions seem to efficiently help in ensuring a wide range of students' needs are met.

Cost of Services

Because research has shown the great impact of cost as a barrier to treatment utilization, it was important to review the costs, if any, of the services provided by these Big 10 Universities. Based on information from campus counseling websites, all reviewed Big 10 Universities offer mental health services at no or low-cost to enrolled students. At University of Michigan-Ann Arbor, there are no charges for services for enrolled students (University of Michigan Student Life, 2018).

Students at Purdue University are not charged for initial assessments, crisis consultations, or group therapy sessions. Yet, there are small charges, $25-$50, for psychiatric initial and follow-up sessions, as well as psychological testing (Purdue University, 2018). Penn State-University Park has a similar policy in place with basic CAPS services provided at no charge to full time students and fees for specialty services.

Penn State students have a limited number of appointments to use before incurring

charges (Penn State Student Affairs, 2018).

Michigan State University and University of Illinois utilize different methods.

The "Three Visits" is the payment system at Michigan State University, in which the

University pays for the first three psychiatry appointments a student utilizes during their

time as a student. After that, the appointment charges are billed to insurance (Michigan

State University Health Services, 2018). Each semester, students at the University of

Illinois pay a mandatory health service fee, based on their enrolled credits. This fee

covers all physical and mental health services students use (Student Affairs at Illinois,

2018a).

Penn State's Notable Actions

Over the past several years, Penn State has taken proactive steps to expand their

mental health services and reach a larger population of students. A 24/7 crisis line is

common at many universities, but Penn State has also implemented a 24/7 crisis text

line students. Penn State also offers a variety of locations, including two on-campus

sites and an off-campus, downtown office, in hopes of easing accessibility for a wide

range of students.

Furthermore, the CAPS Chat program offers counselors at easily accessible

locations in dining halls and commons areas. A new program, CAPS offers informal,

short, free consultations for students. Although not meant for long-term use or for formal

therapy, CAPS Chat offers a first-step for many students to talk about specific concerns

or needs (Penn State Student Affairs, 2017).

In addition to counseling locations around campus, Penn State also offers counseling in a convenient off-campus location in downtown State College (Penn State Student Affairs, 2017). Research has shown system-barriers, including affordability, availability, accessibility, and acceptability, are significantly correlated to student's use of service (Marsh & Wilcox, 2015). Penn State CAPS offering multiple service locations, both on-campus and off-campus, helps deal with the accessibility issues students may face.

Chapter 7

Discussion

Understanding the prevalence of mental health issues among college students, along with the barriers they face when seeking mental health services, is the first step in understanding the necessary changes for addressing the rising demand in mental health needs. As students face their own unique set of challenges and continue to be at great-risk for psychological issues, universities and colleges around the country are seeking to combat these issues and meet the increasing demands. Large universities, like Penn State-University Park, face these challenges and have the added task of reaching a huge student population, with a vast set of demographics and needs.

Tackling the mental health epidemic on college campuses requires a multi-level approach. Reaching out and appealing to higher-risk and at-risk students is vital, but so is improving overall campus culture. No single intervention program can effectively do both. Mental health programs, paired with the expanding professional counseling services, can improve college students' mental health overall and meet the increasing demands. With this in mind, the following recommendations or changes may be helpful for larger universities in finding a balanced approach for dealing with increased demand for mental health services.

Key Takeaways

High-Risk Students

While many practices and effective outreach methods already exist at large universities, new promotion efforts should focus on ensuring at-risk populations, like LGBT+ and international students, are being better served and reached. Intrapersonal interventions that identify these students and appeal to their needs can be effective in bettering their specific mental health needs to improve overall mental health on a campus. Research shows the increase in racial and ethnic minorities, students with disabilities, and other student population groups has changed the dynamic need for mental health services (Mowbray, et al., 2006).

According to Penn State University Budget Office, minority students made up 16.8% of the total Penn State-University Park population in fall 2013. This population increased to 19.6% in fall 2017 (Penn State University Budget Office, 2018). With increasing number of minority and International students, Penn State-University Park and other U.S. universities must ensure tailored services are available and provided to the differing and specific needs of these students. As seen at Michigan State University, online advisors, who speak all languages, can help reach International students 24/7 via a mobile app. This application seems promising, effective, and accessible.

LGBT+ students are also in need of more tailored, approachable mental health services. The LGBT+ organization at Penn State offers programming, mentorship, and peer education programs all year. Yet, there was no specific mental health programming on any of the counseling centers' websites for the LGBT+ community. As with appealing to minority

populations, understanding the differentiated needs of LGBT+ is crucial to meeting the needs of all students.

Cost of Services

Cost remains a barrier to mental health treatment utilization. With increased funding to schools in the U.S., a one-time fee or low-cost services, as are in place at Michigan State University and University of Illinois, can be highly beneficial in promoting utilization among students. Demand for services will likely continue to increase, so affordable mental health interventions will be necessary outside of formal, counseling settings. Promoting peer-to-peer education programs and other student lead initiatives can also help in meeting the needs of students, in a cost-efficient way.

Emergency Access Services

Having emergency services in place for college students is crucial. Colleges and universities are increasing their emergency services via hotlines and text lines. These services will combat 24/7 emergency mental health needs for students. Additionally, drop-in services, like CAPS Chat, provide an approachable, informal setting and can facilitate needed entry into treatment if deemed necessary.

Recommendations

Utilization of Online Resources

Large universities should proactively utilize online resources to reach students and promote better mental health skills. With access to computers across campus and thousands of students utilizing internet and phone services every day, promoting utilization of mental health services through common campus websites will meet students where they are. Additionally, promotion of existing workshops and outreach services can be prominently displayed on websites and promoted through email or learning management services. These cost-efficient and relatively simple additions to existing digital distribution platforms may promote greater use of counseling center's services.

Providing information online regarding how to help peers cope with mental health concerns may also be helpful. Online resources, like "Kognito: Identifying and Referring Students in Mental Distress", could help students gain needed skills to feel comfortable addressing and discussing mental health issues with their friends and peers. Large universities can use technology to better their reach to more students on an everyday basis and empower students to constructively help each other.

Online resources and campus counseling websites can also be tailored to reach high-risk populations. This may include offering information about services provided in different languages for International Students or specific counselors and information for LGBT+ students. Reaching these at-risk populations is an important step in ensuring all students' needs are met.

Promoting Student-Led Initiatives

Large universities are classified as those with over 10,000 enrolled students. Penn State-University Park and the other reviewed Big 10 Universities are especially large with 40-50,000 students on one campus. Utilizing students to lead initiatives to decrease stigma, promote improved campus culture, and facilitate peer-to-peer conversation is both necessary and practical when drawing on best practices of large universities and addressing a student population that is 4 to 5 times the size.

Campus organizations, like Active Minds, show promising, positive effects in engaging students in positive conversation. These conversations, working to destigmatize mental health issues and promoting mental health skills, are promising. In a less formal setting, students are obtaining necessary coping skills, whether they are personally struggling or seeking to help a peer, overall campus culture is improving, and the model is much more cost efficient.

Student Advisory Boards, like the one in place at the University of Michigan, would help university officials and counseling centers connect to the most pressing needs of their students. Advisory Boards, connecting staff and students, would ensure change is being made in the most necessary areas, while giving students exposure to the policy changes and challenges officials face.

Changing Initial Appointment Protocol

The range of initial appointment protocols is interesting. With similar student populations, each university has different methods for seeing students for the first time. A long questionnaire or phone call may deter students from seeking services. If a student makes the decision to go all the way to the campus counseling center, it seems it would be more effective

for their initial entry to be seen that day. Based on the initial, in-person appointment, an appropriate treatment plan can be made. Scheduling of providers and ensuring time is set for initial appointments each day may pose the most pressing challenges to changing this structure.

Limitations

It is evident there is a huge array of strategies to combat the mental health issues of college students. While the intent of this review is to provide insight on effective strategies and methods to combat college students' mental health, there are certainly limitations. First, not all intervention types were reviewed. Further study can provide more insight on the varieties of interventions, as well as understanding more schools across the country. Additionally, not all Big 10 schools were included in the review and each school presents its own unique demographics, environment, and available resources.

Conclusion and the Future

This paper's focus is highlighting the variety of measures universities across the U.S. can use to help address the needs and demand for mental health services among their student populations. Universities must take a multi-level approach to combat the mental health issues of their student population. Physical and mental health is affected by many factors, as seen with the Ecological Model. Intervention programs, policies, and procedures as seen on U.S. College campuses and at Big 10 Universities highlight the need for multiple approaches to effectively combat the mental health concerns of college students.

No single intervention program, online tool, or education campaign will effectively combat the mental health issues of all college students. Instead, multiple strategies will be needed to continue to meet the dynamic needs of today's current college student. For large universities, in particular, this means different programs targeting specific populations. Although the rising trends of psychological issues and demand for mental health services is daunting, it is vital to understand the different levels of influence, from intrapersonal factors to community factors. With this knowledge, university officials, campus counseling centers, and college students can work to meet the demands of college students' mental health needs, improve campus culture, and set the stage for longer-term mental health for the next generation of adults.

Appendix

Summary of Key Takeaways and Recommendations

1. Utilize online resources to:

   a. Reach high-risk populations, like the LGBT+ and International Student community, highlighting specific resources and counseling services.

   b. Promote services like Kognito to increase mental health and communication skills.

   c. Train a number of campus-counselors in appropriate techniques to utilize online counseling and outreach.

2. Promote students taking in initiative by:

   a. Facilitating Student Advisory Boards to connect staff and students.

   b. Leading campus organizations and workshops for peer-to-peer conversation.

3. Pilot a same-day first appointment protocol to:

   a. Get students in the door for treatment.

   b. Address the needs of the most pressing issues of high-risk students.

   c. Decrease overall service wait-times.

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