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CAMPUS MENTAL HEALTHY PRACTICES AND TH STIGMA OF MENTAL
ILLNESS: A QUANTITATIVE ANALYSIS OF STUDENT AFFAIRS
PROFESSIONALS

By

Megan Krone

A dissertation submitted in partial fulfillment
Of the requirements for the degree of

Doctor of Philosophy

May 2016

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UNIVERSITY OF SAN DIEGO
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DISSERTATION: CAMPUS MENTAL HEALTH PRACTICES AND THE
STIGMA OF MENTAL ILLNESS: A QUANTITATIVE STUDY
OF STUDENT AFFAIRS PROFESSIONALS

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DATE: March 9, 2016

Abstract

Around half of undergraduate college students will experience mental illness to some extent during their academic careers, yet a low percentage of students experiencing signs and symptoms of mental illness will seek help despite the availability of proven, effective treatments. The field of higher education has demonstrated a genuine concern for individuals with mental illnesses and mental health care on campuses, yet implementation of practices that connect students to treatment is inconsistent and effectiveness is uncertain.

This study searched for associations between campus practices and campus culture regarding mental illness. While institutions of higher education are using both traditional and emerging mental health practices, little research has been done to inform institutions which practices may be effective in increasing healthy behaviors, such as help seeking. This study focused on the stigma of mental illness due to its consistent, negative relationship with help-seeking behaviors.

Stigmatizing attitudes of Student Affairs professionals was used as a measure of campus culture due to professionals' direct, consistent relationships with students and their ability to influence policies and procedures that affect support of student mental health and students with mental illness. The final sample of Student Affairs professionals included 125 professionals at over 80 institutions in over 30 states.

Social stigma was measured using the newly developed Student Affairs Professionals Social Stigma Scale (SAPSSS) based on Corrigan's (2004) model of stigma. SAPSSS scores were analyzed to search for relationships between awareness of, referral to, and engagement in campus mental health practices; contact with individuals

with mental illness; staff characteristics (level, area, length of employment); and institutional characteristics (type, size, affiliation, and designation).

The results of this study include a list of campus mental health practices and support for the use of practices that target relationships, between individuals and between groups, in creating caring campus communities. While other practices may be effective in supporting or treating individuals with mental illness, practices that target relationships in educating members of the campus community to care for each other show the most potential for influencing campus culture to increase mental health on campuses at all levels.

Dedication

Thank you to my parents, Gerald and Kathleen Krone for their very generous, genuine support throughout this process.

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While I have always had an interest in campus mental health, I never imagined I would someday conduct research that has the potential to contribute to healthier campus communities. Completion of this process would not have been possible without the challenges and support of my committee members, Dr. Christopher Newman, Dr. Zachary Green, and Dr. Lee Williams. I am so grateful I had the opportunity to take courses with each of you and that you accepted the invitation to join me on this journey. Each of you carried a piece necessary to make this project whole. Your thoughtful feedback pushed me when I needed more and pulled me when I needed less.

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CHAPTER ONE: INTRODUCTION AND BACKGROUND

Introduction

Around half of undergraduate college students will experience mental illness to some extent during their academic careers (ACHA, Spring 2015; ACHA, Fall 2014; ACHA, Spring 2014; ACHA, Fall 2013; ACHA, Spring 2013; Arria, Caldeira, Vincent, Winick, Baron, & O’Grady, 2013; Eisenberg, Lipson, Beck, Dalal, & Despot, 2014; Keyes, Eisenberg, Perry, Shanta, Kroenke, & Dube, 2013), yet a low percentage of students experiencing signs and symptoms of mental illness will seek help (Downs & Eisenberg, 2012; Gallagher, 2014) despite the availability of proven, effective treatments (Gallagher, 2014; Reetz, Barr, & Krylowicz; United States Department of Health and Human Services, 1999). Scholars suggest a major barrier to mental health treatment may be the stigma of mental illness, which is consistently present and negatively correlates with help-seeking behaviors (Czyz, Horwitz, Eisenberg, Kramer, & King, 2013; Department of Health and Human Services, 1999; Downs & Eisenberg, 2012; Quinn, Williams, Quintana, Gaskins, Overstreet, Pishori, & Chaudoir, 2014; Salzer, 2011; Shuchman, 2007). The field of higher education has demonstrated a genuine concern for individuals with mental illnesses and mental health care on campuses yet implementation of practices that connect students to treatment options is inconsistent and effectiveness is uncertain. While institutions of higher education (IHE’s) are using both traditional and emerging mental health practices, little research has been done to inform the field on which practices may be effective in increasing healthy behaviors, such as help seeking.

This chapter will include a background, statement of the problem, purpose of the study, research questions, and definitions of key terms. The background information

includes a summary of the prevalence and effects of mental illness on college campuses while the statement of the problem discusses the low percentages of help-seeking behaviors in college student populations. The review of the literature cites a number of studies about college student help-seeking behaviors and the stigma of mental illness and includes a description of Corrigan's (2004) model of stigma, which is the basis for this study. A more complete review of the literature is provided in the following chapter. This information provides a rationale for the following study and research questions. Definitions from key terms are pulled from the models used in the study, the literature, and the American Psychiatric Association (APA).

Background

The American College Health Association (ACHA) conducts the biannual National College Health Assessment (NCHA) which, from 2008 to the present, includes 66 items on a range of health topics, including mental health. The Spring 2015 assessment included responses from 93,034 students at 108 institutions in the United States. The survey results indicated over half of students felt "so depressed it was difficult to function," and over a third of students felt that way within the last 12 months (ACHA, 2015, p. 32). More than 7 out of 10 respondents indicated they "felt overwhelming anxiety," over half feeling that way in the last 12 months (ACHA, 2015, p. 32). The ACHA survey has found the percentage of students reporting these experiences has stayed relatively consistent (ACHA, Spring 2015; ACHA, Fall 2014; ACHA, Spring 2014; ACHA, Fall 2013; ACHA, Spring 2013; ACHA, Spring 2012; ACHA, Fall 2011).

In the NCHA and other studies, findings consistently demonstrate high percentages of students self-reporting clinical diagnoses of mental illness. A survey

seeking to identify the number of students with clinical levels of mental illness found that of 5689 students at 13 universities, more than 10 percent of respondents currently met the criteria for a mental illness defined by the *Diagnostic and Statistical Manual, Fourth Edition (DSMIV)* (Keyes et al, 2012). In the NCHA (ACHA, Spring 2015), students reported clinical diagnoses within the last 12 months of depression (13.2%), anxiety (15.9%), panic attacks (7.3%), obsessive compulsive disorder (2.5%), bipolar disorder (1.5%), schizophrenia (0.3%), and a variety of other disorders (ACHA, Spring 2014, pp. 34-36). Keyes et al. (2012) found slightly lower percentages of respondents who met the criteria but only considered students' current state: major depression (7.9%), generalized anxiety disorder (5.9%), and panic disorder (3.8%).

The number of students who report thoughts or actions of self-harm on the NCHA has also stayed relatively consistent with some slight increases in the past 3 years (see Table 1). While the percentage of students self-reporting self-harm is much smaller than those indicating experiences of depression and anxiety, the number of students to which this translates on each campus is concerning. Applying these statistics to a mid-size to large campus of 10,000 students, these percentages translate to 1870 students intentionally harming themselves (630 within the last 12 months), 2320 students seriously considering suicide (900 within the last 12 months), and 890 students attempting suicide (140 within the past 12 months).

The NCHA does not account for completed suicides nor are there any other regular assessments that require institutions of higher education (IHE) to regularly document or share information regarding suicides within college student populations. The Clery Act (2013) was passed in an attempt to increase accountability measures for

IHE's regarding the safety of their campuses. All IHE's are currently required to publicly display reports and statistics, but the Clery Act (2013) requirements only pertain to criminal behavior that occurs on campuses. There is no legal requirement for universities to report nor publicly display any incidents of self-harm or death by suicide; thus, little is known about campus conditions that could increase risks of self-harm. Even when deaths by suicide are reported publicly, deaths of recent graduates and students on leave may be excluded (MacKenzie, 2013).

Table 1

National College Health Assessment results: Percentages of students who responded "within the last 2 weeks," "within the last 30 days," or "within the last 12 months" when asked "Have you ever..." (ACHA, Fall 2012; ACHA, Spring 2013; ACHA, Fall 2013; ACHA, Spring 2014; ACHA, Fall 2014; ACHA, Spring 2015)

	Fall 2012 (n=28,237)	Spring 2013 (n=123,078)	Fall 2013 (n=32,964)	Spring 2014 (n=79,266)	Fall 2014 (n=25,841)	Spring 2015 (n=93,034)
"...felt so depressed it was difficult to function?"	29.5%	31.4%	30.8%	32.6%	33.5%	34.5%
"...felt overwhelming anxiety?"	50.0%	51.0%	51.0%	54.0%	56.1%	56.9%
"... intentionally cut, burned, bruised or otherwise injured yourself?"	5.6%	6.0%	6.0%	6.4%	6.1%	6.3%
"...seriously considered suicide?"	7.0%	7.3%	7.5%	8.1%	8.7%	9.0%
...attempted suicide?"	1.3%	1.5%	1.4%	1.3%	1.5%	1.4%

While the numbers of students self-reporting experiences of signs and symptoms of mental illness have stayed relatively consistent, counseling center directors have reported an increase in the number of students with sign and symptoms of mental illness on campuses, particularly severe mental illness (Gallagher, 2014; Watkins, Hunt, &

Eisenberg, 2011). It is becoming increasingly common for students to enter college with a mental illness diagnosis and students often enter with a treatment plan, which sometimes includes medication (Gallagher, 2014; Shuchman, 2007; Watkins, Hunt, & Eisenberg, 2011). In their transition to college, many students experience disruptions in their treatment plans due to barriers such as geographical changes that prevent students from engaging in face-to-face treatment with their established clinicians, gaps in insurance disruptions in care due to academic calendars and scheduled breaks, and/or refusal to seek help once removed from the influence of family members or social support systems (McIntosh, Compton, & Druss, 2012). These challenges can make it difficult for students to maintain their previously established treatment plans.

In addition to students who enter college with existing diagnoses, some students experience signs and symptoms of mental illness for first time in their college years. The age range for traditionally aged college students (18-22) overlaps with the common age range of onset of many mental illnesses (early 20's) (McIntosh, Compton, & Druss, 2012), and changes in stress and social support can add to mental and emotional distress. During a time of expected stress and transition, students may normalize high levels of stress and anxiety and may not realize they are experiencing signs and symptoms of mental illness (Downs & Eisenberg, 2012).

While the prevalence of mental illness and incidence of self-harm is already troubling, untreated mental illnesses also have worrisome effects on individual students and campus populations. Mental illness can affect students physically, emotionally, financially, socially, academically, and professionally and can have severe consequences, including death (Byrd & McKinney, 2012; Chung, Klein, Silverman, Corson-Rikert,

Davidson, Ellis, & Kasnakian, 2011; Douce & Keeling, 2014; Gallagher, 2014; Healthy Minds Network, 2013; MacKenzie, 2013; Schindler & Kientz, 2013; Sickie, Seacat, & Nabors, 2014; Vogel, Wade, & Ascherman, 2009; Walker & Peterson, 2012).

Students with mental illnesses are more likely to have other health concerns (Sickie, Seacat, & Nabors; 2014), have a greater risk of hospitalization (Gallagher, 2014), have increased fear and anxiety (Schindler & Kientz, 2013), and experience decreases in the ability to manage stress (Schindler & Kientz, 2013). Mental illness and additional health concerns can then cause significant financial burdens (Vogal, Wade, & Ascherman, 2009), particularly if students must seek off-campus or costly care.

Studies have demonstrated that mental illness is related to decreases in motivation (Schindler & Kientz, 2013), decreases in ability to concentrate (Schindler & Kientz, 2013), and poor academic performance (Byrd & McKinney, 2012; Douce & Keeling, 2014). Students with mental illness who remain in school may need extensive psychiatric help to continue their studies, and many universities do not offer long-term care on campus (Gallagher, 2014). Because of these physical, emotional, social, and academic challenges, students with mental illness are more likely to depart from the university without graduating (Douce & Keeling, 2014; Gallagher, 2014; Healthy Minds Network, 2013). As students transition out of college, mental illness may complicate and diminish students' abilities to make career choices (Walker & Peterson, 2012, p. 502).

In addition to the direct effects experienced by students with mental illness, there are also effects for a student's family, friends, faculty, classmates, roommates, and other members of the community (Chung et al., 2011). Members of the students' social networks may experience increases in their own fears, anxieties, and stresses.

Additionally, when suicides occur, there can be a contagion factor – additional, or “clustering,” of suicides within the community – sending ripples of impact throughout the campus and community (MacKenzie, 2013).

The only legal requirements of IHE’s in terms of mental health are covered by the Americans with Disabilities Act (ADA), which generally requires accommodation but does not describe specific requirements in terms of structure, staffing, nor processes. Most IHE’s provide access to some level of proven, effective treatments and care options for mental health. Most four-year, private and public, non-profit college and universities have a counseling center staffed by qualified mental health professionals (Gallagher, 2014). In an annual survey by the Association for University and College Counseling Center Directors (AUCCCD), directors reported that 64.4% of colleges offered psychiatric services on their campuses, an increase from the previous year (Reetz, Barr, & Krylowicz, 2013, p. 12). In a 2014 annual survey of directors (or equivalent) of campus counseling centers, fewer than 5 percent of institutions charge a fee for mental health services, while some students (9%) are referred to resources off-campus (Gallagher, p. 4). These surveys suggest most universities can accommodate most students free of charge. Most mental illnesses have proven and effective treatments, and students who use campus treatment options generally believe them to be effective (Downs & Eisenberg, 2012; Reetz, Barr, & Krylowicz, 2013).

Statement of the Problem

The high percentage of students who have been affected by mental illness has been consistently demonstrated through many studies and across time (ACHA, Spring, 2013; ACHA, Fall 2013; ACHA, Spring 2014; ACHA, Fall 2014; ACHA, Spring 2015;

Keyes, Eisenberg, Perry, Shanta, Kroenke, & Dube, 2012; Rooks & Scheyett, 2012).

Several studies have shown that most students are not seeking help, and many students with severe signs, symptoms, and risks of harm are not using available campus resources. One consistently proposed barrier to mental illness is the stigma of mental illness.

Salzer (2011) estimates that over half of students with mental illness do not seek help. Directors of counseling centers report that 11% of students use campus counseling services (Gallagher, 2014). Downs and Eisenberg (2012), in a survey of college students who indicated they had experienced suicide ideation in the past 12 months, found 51.5% received treatment in some capacity, leaving 48.5% untreated. Shuchman (2007) estimated that of students who die by suicide, only 20% seek treatment. Of the 125 deaths by suicide reported by the 275 directors surveyed by Gallagher (2014), only 14% had visited the campus counseling center.

National surveys and related campus mental health literature consistently demonstrate that a large percentage of the college student population is experiencing mental illness. Student self-reported incidence of illness and self-harm has remained consistent, and campus mental health professionals are reporting increasing numbers of students with severe mental illness on campuses. Students with mental illness are then experiencing additional challenges. Despite the availability of proven, effective treatments, many students are not seeking help.

Review of the Literature

The background presented above demonstrates the need, availability, and perceived effectiveness of campus mental health services. In an attempt to better understand campus mental health care and student help-seeking behaviors, the literature

summarized in this section focuses on help-seeking behaviors, the stigma of mental illness, and campus culture in the context of four-year, public and private, non-profit, brick-and-mortar institutions of higher education in the United States. While studies have shown that some identities have significant differences in perceived and social stigma, help-seeking behaviors, and interaction with campus environments (Byrd & McKinney, 2012; Fink, 2014), this review will focus on research examining the general student population, individuals with mental illness, and campus mental health professionals. A more extensive review will be provided in the next chapter.

Very little research has examined supports for help-seeking and other mentally healthy behaviors. There is some support for practices that involves social connection, suggesting one's social networks may protect students from the onset of mental illness and influence from these networks may increase the likelihood that a student will seek treatment (Downs & Eisenberg, 2012; Mason, Zaharakis, & Benotsch, 2014). In addition, have direct, personal assistance seems to have an effect on treatment maintenance (Miranda, Soffer, Polanco-Roman, Wheeler, & Moore, 2015). Social connection appears to have some effect on increasing mentally healthy behaviors on campuses.

Much of the literature focuses on barriers to treatment and emphasizes the understanding of obstacles to seeking mental health services (The Jed Foundation Campus MHAP and EDC, Inc., 2011; Vogel, Wade, & Ascherman, 2009). Studies have examined these barriers from both campus mental health practitioner and student points of view to better understand the perceived structural, programmatic, and cultural barriers to students receiving treatment and flourishing on campuses.

Many practitioners cite their own constraints, which they perceive to limit help-seeking behavior in students. Often, available counseling appointments are filled soon into the semester, which causes students experiencing difficulties later in the semester to add their names to an increasingly long wait list. A survey of 13 mental health professionals involved in the Healthy Minds Study to improve campus mental health cited limited availability of appointments generally due to lack of qualified staff and limited physical space (Watkins, Hunt, & Eisenberg, 2011). Gallagher's 2014 annual survey of counseling center directors cited an average ratio of 1 mental health professional per 2081 students (p. 4). With over half of students experiencing signs and symptoms of mental illness to some degree, this ratio seems woefully inadequate. With such large ratios, campus mental health professionals cannot match the need for their services, and IHE's without other mental health care options will feel the effects of untreated mental illness in their student population, no matter how effective the treatment options provided.

Students cite reasons and attitudes, rather than explicit barriers, which dampen their motivation to seek on-campus treatment. Many students – even those who have thoughts of or risk factors for self-harm – prefer to self-management of symptoms (Czyz et al., 2013; Downs & Eisenberg, 2012); prefer help from family or friends (Czyz et al., 2013); believe that stress is normal in college (Downs & Eisenberg, 2012); see their symptoms as being minor or temporary (Czyz et al., 2013; Downs & Eisenberg, 2012); and/or cite a “lack of time” (Czyz et al., 2013; Downs & Eisenberg, 2012). The findings that students feel their minor and normal are curious considering so many students in the NCHA studies indicated feeling overwhelmed and difficulty with daily activities. This

tension suggests that students are receiving and internalizing conflicting messages that may prevent them from engaging in healthy behaviors.

While studies of campus mental health professionals and students suggest various reasons that students do not seek help, one consistent, somewhat debated, variable is the stigma of mental illness. Because of social disapproval, individuals with mental illness may conceal their signs and symptoms, creating what the literature refers to as a “concealable stigmatized identity: “[a] socially devalued [identity] that can be hidden from others” which can result in “great variability in [the] experience of psychological distress” (Quinn et al., 2014). The concealability of this devalued identity then affects students’ behaviors and their internal thoughts and feelings about themselves and their experiences.

While the extent to which the stigma of mental illness affects students and help-seeking behaviors is unclear, many studies have confirmed the negative correlation between students’ perceived stigma of mental illness and help-seeking behaviors (Czyz et al., 2013; Downs & Eisenberg, 2012; Salzer, 2011; Shuchman, 2007). In a review of mental health and help-seeking literature, Sickles, Seacat, and Nabors (2014) found mental health stigma was consistently reported in all studies reviewed and “has wide-ranging mental and physical health complications” (p. 208). Downs and Eisenberg (2012) found an association among suicidal students between personal stigma and lower odds of treatment. In this same study, perceived stigma was, surprisingly, positively associated with treatment use, but the authors speculate that undergoing treatment may increase students’ salience about their symptoms and treatment and therefore increase their concern about others’ perceptions. This literature review did not find convincing

evidence as to the extent of existence nor effect of stigma; however, this review supports Vogel, Wade, and Ascherman's (2009) claim that "...even small amounts of stigmatization from one's social network may matter" (p. 307).

While many studies examined perceived stigma, students' perceptions of stigma stem from their environment. A study by Anderson, Jeon, Blenner, Wiener, and Hope (2015) examining students' personal stigma of individuals with mental illness – particularly social anxiety disorder and depression – found students may change their behavior when interacting with individuals with mental illness. They found that students desire "greater social distance from a person described as depressed" when symptoms were more publicly visible (p. 134). In addition, students indicated a desire for greater social distance when "viewing the person as more dangerous, and more embarrassed by the symptoms; viewing the symptoms as causing more problems at work; and viewing the disorder as more common among women, and less likely to be avoidable" (p.134). These prejudicial attitudes can then lead to discrimination on campuses.

Stereotyping students with mental illness as dangerous may be related to literature and media coverage (Mestdagh & Hansen, 2014) of traumatic incidents on campuses, such as mass shootings. These incidents have brought increased attention to campus mental health in both beneficial and harmful ways. Watkins, Hunt, and Eisenberg (2011) found that campus mental health administrators were concerned by the "overreaction" in response to these rare incidents. This overreaction seems to have the drawbacks of increased stigma but the benefits of an increase in the perceived value of campus mental health professionals' work by other campus faculty and staff (Watkins, Hunt, & Eisenberg, 2011); an increase in faculty and staff demand and support for mental health

services and expertise (Watkins, Hunt, & Eisenberg, 2011); and value in new systems that identify at-risk students (Downs & Eisenberg, 2012).

Some studies found some promising factors for increasing help-seeking behaviors or decreasing the stigma of mental illness. Downs and Eisenberg (2012) suggested the influence of social networks were strongly associated with help seeking. Anderson, Jeon, Blenner, Wiener, and Hope (2015) found students who had previously participated in treatment were less likely to desire social distance from individuals with depression or social anxiety disorder. Participants in this study with prior treatment viewed social anxiety as “significantly less the person’s fault, more common, more treatable with medication, and more embarrassing to have” (p. 134). These studies suggest opportunities to explore in order to decrease stigma on campuses.

One key to positively influencing mental health on campuses seems to be changing the culture of mental health to decrease the levels of social stigma on campuses. Already, there have been increases in support, both in staffing and funding for campus mental health offices on many campuses (Gallagher, 2014; Reetz, Barr, & Krylowicz, 2013). Some of the literature supports a focus on changing the social stigma of mental illness and/or seeking help in order to increase treatment access (Vogel, Wade, & Ascherman, 2009).

Mental health professionals and university administrators are using traditional structures as well as new practices and initiatives to decrease levels of stigma on campuses with the hopes of increasing help-seeking behaviors. A review of the literature as well as campus mental health practitioner conference programs demonstrated a range of traditional and emerging campus mental health practices. In the review of the

literature for this study, no research was found on which intentional mental health practices, traditional and emerging, are associated with higher or lower levels of social stigma on campuses, yet many claimed that changing campus culture, particularly regarding stigma would be beneficial to everyone within the campus community (Douce & Keeling, 2014; The JED Foundation Campus MHAP and EDC, Inc., 2011; Sickel, Seacat, & Nabors, 2014; Standards of Practice for Health Promotion in Higher Education, 2015).

Purpose of the Study

The purpose of this study was to identify possible associations between campus practices and campus culture regarding mental illness, specifically the social stigma of mental illness. The focus on stigma forces this study to use a deficit lens – a search for decreasing a negative factor. This is necessary for this study as there is no current model nor framework for understanding how campus culture can influence mentally healthy behaviors, such as help-seeking behaviors. Due to the consistent, negative relationship between stigma and help-seeking behaviors in the literature, lower levels of stigma will be used as an indicator of the potential for mentally healthy behaviors. The goal of this study is to search for practices that can then be researched further for their positive effects on mentally healthy behaviors at IHE's.

As each campus is unique and there are no legal requirements for the structure of campus mental health care, IHE's have developed a variety of practices to care for their student populations. Despite the established negative correlation between perceived stigma and help-seeking behaviors, no studies found in this review have examined which, if any, specific practices appear to lower the levels of social stigma on campuses. This

study identified individual practices as well as types of practices within existing models that were associated with lower levels of social stigma with implications for further study. In addition, these practices associated with lower levels of stigma are ripe for additional, in-depth study to determine if they are beneficial investments of resources for institutions of higher education.

The perceptions of Student Affairs professionals regarding students with mental illnesses was used as an indicator of social stigma on campuses because of Student Affairs professionals' potential to influence students and campus culture. This study focused on Student Affairs professionals because of the lack of research of this group within this area of study and because of the continuous, direct relationships these individuals have with students on campuses.

Key Terms

Listed below are terms used often throughout this work. This list includes terms used within the context of the models used in the framework for the methodology (Chapter 3) and analysis (Chapter 4). The terms contact, discrimination, education, prejudice, protest, and stereotypes all pertain to Corrigan's (2004) model of stigma. The terms primary practices, secondary practices, and tertiary practices pertain to a preventative public health model (McKenzie, Neiger, & Thackeray, 2012; Pickett & Hanlon, 1990; United States Department of Health and Human Services, 1999). The terms intra-individual practices, individual practices, intra-group practices, intergroup practices, institutional practices, community practices, and public policy practices pertain to a socio-ecological model (Bronfenbrenner, 1979; The Jed Foundation Campus MHAP

and EDC, Inc., 2011; McLeroy, Bibeau, Steckler, & Glanz, 1988). These models will be described in more depth in the next chapter.

Community practices: practices that “change conditions and environments that affect the institution; group/family/peer behavior; and individual behavior” (The JED Foundation Campus MHAP and EDC, Inc., 2011, p. 8).

Contact practices: experiences of or opportunities of “members of the general public [to] have contact with people with mental illness who are able to hold down jobs or live as good neighbors in the community” (Corrigan, 2004, p. 620); opportunities to better understand the individualistic nature of mental illness and the value of individuals with mental illness within a community.

Diagnostic and Statistical Manual for Mental Disorders (DSM or DSMV): a comprehensive resource, reviewed and published through the American Psychiatric Association (2013), which describes and defines mental diseases, illnesses, and disorders. The *DMS* is the most commonly used reference for describing and defining mental diseases, illnesses, and disorders in mental health literature and practice.

Discrimination: “a behavioral response based on prejudice towards a minority group... that may result in harm towards members of that group...” (Corrigan, 2004, p. 163-164).

Educational practices: a provision of “information so that the public can make more informed decisions about mental illness” (Corrigan, 2004, p. 620).

Individual practices: practices that target individuals, e.g. one-on-one counseling.

Institutional practices: practices that “change institutional conditions and environments that influence individual behavior,” e.g. policies and procedures (The JED Foundation Campus MHAP and EDC, Inc., 2011, p. 8).

Intergroup practices: practices that promote collaboration by intentionally increasing communication between groups

Interpersonal practices: practices that “promote social support through interaction with others” (The JED Foundation Campus MHAP and EDC, Inc., 2011, p. 8).

Intra-group practices: practices that change dynamics and environments within a self-contained group.

Intra-individual practices: practices that promote self-awareness and action for healthy behaviors.

Mental health: “a general condition of soundness and vigor of the... mind” (American Psychological Association, 2015, n.p.) or “a state of successful performance of mental function, resulting in productive activities, fulfilling relationships with other people, and the ability to adapt to change and cope with adversity” (U.S. Department of Health and Human Services, 1999, p. 4).

Mental health treatment: any intentional practice to promote mental health or decrease the presence, signs, symptoms, or effects of mental illness.

Mental illness: any disease, illness, or disorder affecting one’s cognitive, emotional, or behavioral health, as defined within the *Diagnostic and Statistical Manual for Mental Disorders, Fifth Edition (DSM-5)*, or, in studies published previous to 2013, as defined in earlier editions of the *DSM*.

Mental health practices: any intentional strategy to improve mental health or decrease mental illness.

Prejudice: the endorsement of negative stereotypes and resulting negative emotional reactions (Corrigan, 2003, p. 163).

Primary practices: “...measures that forestall the onset of illness...” (McKenzie, Neiger, & Thackeray, 2012).

Protest practices: corrective action towards “inaccurate and hostile representations of mental illness as a way to challenge the stigmas they represent.” (Corrigan, 2004, p. 620). Protest actions send messages “to the media, stop reporting inaccurate representations of mental illness; to the public, stop believing negative views about mental illness” (Corrigan, 2004, p. 620).

Public policy practices: practices that “have wide-reaching impact through actions affecting communities, organizations, and entire populations,” e.g. federal, state, or local requirements (The JED Foundation Campus MHAP and EDC, Inc., 2011, p. 8).

Secondary practices: “...measures that lead to early diagnosis and prompt treatment... to limit disability, impairment, or dependency, and prevent more severe [symptoms, unhealthy actions, or illnesses]...” (McKenzie, Neiger, & Thackeray, 2012).

Stereotypes: “collectively held beliefs about the members of social groups” (Corrigan, 2004, p. 163). These beliefs incorrectly generalize presumed characteristics or experiences of a social group to all individuals within that social group.

Stigma: “the negative social attitude to a characteristic of an individual that may be regarded as a mental, physical, or social deficiency. A stigma implies social disapproval and can lead unfairly to discrimination against and exclusion of the individual.” (VandenBos, 2007, n.p.)

Tertiary practices: “...measures aimed at rehabilitation after significant [illness or crisis]” (McKenzie, Neiger, & Thackeray, 2012).

CHAPTER TWO: REVIEW OF THE LITERATURE

Around half of undergraduate college students will experience mental illness to some extent during their academic careers (ACHA, Spring 2015; ACHA, Fall 2014; ACHA, Spring 2014; ACHA, Fall 2013; ACHA, Spring 2013), yet a low percentage of students experiencing signs and symptoms of mental illness will seek help (Downs & Eisenberg, 2012; Gallagher, 2014) despite the availability of proven, effective treatments on most campuses (Gallagher, 2014; Reetz, Barr, & Krylowicz). Within the context of college student populations, this review of the literature will explore research, policy, and professional practice regarding the prevalence of mental illness, the effects of untreated mental illness, the availability of on-campus mental health treatment, help-seeking behaviors related to mental health, the stigma of mental illness on college campuses, and intentional campus mental health practices (historical and emerging).

Some of the literature used for this review, particularly the literature regarding the concept of stigma, comes from a broader context of mental health. However, the intent of this literature review is to focus on research and application of literature about mental health and mental illness in the context of brick-and-mortar, four-year, degree-granting, public and private, nonprofit institutions of higher education (IHE's) in the United States. Research about online and for-profit institutions has been excluded due to the difference in structure, mission, and values from the target IHE's. Research about two-year institutions has been excluded due to the difference in structure and resources. Literature from outside of the United States has also been excluded due to the complexity of cultural differences in regards to stigma, an exploration of which is outside of the scope of this review.

Definitions for specific mental illnesses will not be included in this review. When specific illnesses are named, this review defers to definitions provided by the authors of each piece of literature, or, when lacking, the American Psychiatric Association's (APA) long-used *Diagnostic and Statistical Manual of Mental Disorders*, which is in its fifth edition, commonly referred to as the *DSM-5* (American Psychiatric Association, 2013). While some mental illnesses are more common in college populations, this review seeks to explore the range of mental illnesses on campuses and how the stigma of any mental illness may impact the help-seeking behaviors of individuals with a range of experiences and illness severity.

Prevalence of Mental Illness in College Student Populations

The American College Health Association (ACHA) conducts the biannual National College Health Assessment (NCHA), which includes 66 items (last updated in 2008) on a range of health topics, including over 20 questions about mental health. The Spring 2015 assessment included responses from 93,034 students at 108 institutions around the United States (ACHA, 2015). In Spring 2015, over half of students indicated that they had felt “so depressed it was difficult to function,” and over a third of students indicated that they had felt that way within the last 12 months (ACHA, 2014, p. 33). Over two thirds of respondents indicated they had “felt overwhelming anxiety,” and over half indicated they had felt that way in the last 12 months (ACHA, 2014, p. 34). These numbers represent a shocking number of college students self-reporting unhealthy balances in their mental health. The percentage of students with these experiences has stayed relatively consistent (See Table 1) (ACHA, Spring 2015; ACHA, Fall 2014;

ACHA, Spring 2014; ACHA, Fall 2013; ACHA, Spring 2013; ACHA, Fall 2012; ACHA, Spring 2012; ACHA, Fall 2011).

The number of students who report thoughts or actions of self-harm has also stayed consistent. Nearly 1 in 5 respondents indicated they had at some point “intentionally cut, burned, bruised, or otherwise injured” themselves. More than 1 in 5 indicated they had “seriously considered suicide,” and almost 8.9% indicated they had at some point attempted suicide. While the percentage of students self-reporting these experiences is much smaller than those indicating experiences of depression and anxiety, the number of students this translates to on each campus is concerning. On just one campus of 10,000 students, these percentages translate to 1870 students intentionally harming themselves (630 within the last 12 months), 2320 students seriously considering suicide (900 within the last 12 months), and 890 students attempting suicide (140 within the past 12 months).

Several studies have attempted to identify the incidence of specific diagnoses in student populations. Depression and anxiety disorder are consistently the most reported diagnoses in college student populations, but panic disorder, obsessive compulsive disorder (OCD), bipolar disorder, and schizophrenia are also consistently present (see Table 2). While the literature does not agree on exact measurements nor incidence of mental illness within college student populations, many studies confirm significant numbers of students attending IHE’s while managing mental illnesses.

The ACHA does not account for completed suicides nor is there any other resource that regularly and accurately documents suicides within college student populations. The Clery Act (2013) was passed in 1990 to increase IHE accountability for

the safety of campuses through the required public display of safety statistics. However, the act only requires IHE's to report and publicly display criminal acts reported on campuses. There is no legal requirement for universities to report nor publicly display information about "safety from self," including self-harm nor any death by suicide. Thus, few studies have explored institutional risk factors for death by suicide.

Table 2

Diagnoses of mental illness in college student populations

	Reporting Method	Any	Depression	Anxiety Disorder	Panic Disorder	OCD	Bipolar Disorder	Schizophrenia
Current								
Keyes, Eisenberg, Perry, Shanta, Kroenke, and Dube (2013) (n=5689)	clinical indicator	12.7%	7.9% major	5.9%	3.8%	-	-	-
Eisenberg, Lipson, Beck, Dalal, & Despot (2014) (n=16,342)	clinical indicator	-	12% major 21% any	8% severe 22% any	-	-	-	-
Within the last 12 months								
ACHA (Spring 2015) (n=93,034)	self-report	-	13.2%	15.9%	7.3%	2.5%	1.5%	0.3%
Lifetime								
ACHA (Spring 2015) (n=93,034)			19.7%	-	-	-	-	-
Arria, Caldeira, Vincent, Winick, Baron, & O'Grady (2013) (n=1145)	Interview	-	14%	13%	-	-	-	-
Eisenberg, Lipson, Beck, Dalal, & Despot (2014) (n=16,342)	self-report	34%	20% (combined with bipolar)	21% (combined with OCD)	-	-	-	1%

Gallagher's (2014) national, annual survey of counseling center directors (or equivalent) documented 125 student deaths by suicide reported from a sample of 275

directors (p. 6). Of these 125 deaths by suicide, the majority were male (70%), Caucasian (77%), undergraduates (80%), and occurred away from campus (71%) (Gallagher, 2014, p. 6). More specific numbers are difficult to estimate as universities seldom report suicide deaths and statistics publicly, presumably because of the potential for unwanted social and media attention.

Multiple studies focusing on the professional opinions of campus mental health professionals show reports of an increase in severity of symptoms of mental illness (Gallagher, 2014; Watkins, Hunt, & Eisenberg, 2011). It is becoming increasingly common for students to enter college with a diagnosis and treatment plan. A large majority of counseling center directors “report that there has been a steady increase in the number of students arriving on campus that are already on psychiatric medication,” estimating that 26% of counseling center clients are on psychiatric medication, a steady increase from the survey results during the past 20 years (Gallagher, 2014, p. 5). In the Healthy Minds Study, Eisenberg et al. (2014) found 18% of students had been on psychiatric medication in the past year. The use of psychiatric medication in student populations may reflect the perceived increase in severity of mental illness, but there could be other reasons for this increase, including an increase in doctor tendencies to prescribe psychiatric medication or an increase in access to higher education for students with mental illness because of the support of appropriate treatment, including medication.

The presence and onset of mental illness is not surprising in college student populations due to the overlap of traditionally aged college students (18-22) and the common age of onset for many mental illnesses (late teens and early twenties). What is surprising is the consistency of counseling center directors’ claims of the increasing

severity of mental illness on campuses. Ninety-four percent of Gallagher's (2014) respondents "report that recent trends toward greater number of students with severe psychological problems continue to be true on their campuses" (p.5). These same directors also reported increases in specific diagnoses and issues over the past 5 years: anxiety disorders (89% of directors indicated an increase), crises requiring immediate response (69%), psychiatric medication issues (60%), clinical depression (58%), self-injury issues (35%), and problems related to earlier sexual abuse (34%) (Gallagher, 2014, p. 5). Keyes et al. (2013) found 3.6% of the 5689 students sampled could be categorized as experiencing "languishing" mental health (p. 128). They found "[a]nxiety continues to be the most predominant presenting concern among college students," rising from 41.6% to 46.2% in one year, followed by depression, rising from 36.4% to 39.3%, and relationship problems (35.8%, unchanged from 2012).

These numbers from surveys of large, general populations of students are concerning as they consistently demonstrate that a large portion of students at IHE's are experiencing the signs and symptoms of mental illness, which seem to be increasing in severity. As IHE's become more diverse, some studies have focused on specific populations, which should be important to all higher education environments as campuses are constantly becoming more diverse and inclusive and particularly to institutions with large numbers of students within these populations.

Prevalence of Mental Illness in Specific Populations

IHE's are becoming increasingly diverse in a multitude of ways: some populations are entering higher education at higher-than-ever rates (e.g. Latino/a students) while others have always been present but are being more consistently

recognized and visible (e.g. students who identify as transgender). The studies in this section explore differences through research studies of student subpopulations, including race, ethnicity, gender, gender identity, sexual orientation, and religious identity. During this review, no studies were found that focused on the prevalence of mental illness and ability, socio-economic status, or other identities in the context of higher education in the United States.

Race and ethnicity. The literature on the prevalence of mental illness within specific racial and ethnic populations shows some groups to be more at risk for some types of mental illness. However, much of the literature agrees that these increased risks may stem from tense campus climates and/or from IHE structures that have historically catered to the majority population of white students and do not account for marginalized experiences nor cultural differences, which may contribute to stress, anxiety, and depression.

Miranda et al. (2015) studied the differences of depressive symptoms, suicide attempts, and suicide ideation between “racial/ethnic” students and “white” students. They found no significant differences in depressive symptoms, suicide attempts, nor suicide ideation, neither in the initial nor in the follow up survey. However, as the sample only included 124 students, Miranda et al. (2015) did not disaggregate race and ethnicity data and thus were unable to make any conclusions regarding differences between specific races and ethnicities.

A survey of over 1000 freshmen at 2 universities showed that students who identified as White, Hispanic, or multi-racial / other indicate higher levels of non-suicidal self-injury (NSSI) than students who identified as Asian or Black (Wester & Trepal,

2015). NSSI was positively correlated with depression and anxiety. Weser and Trepal (2015) found higher rates of NSSI in individuals who experienced “lower levels of affirmation, belonging, and commitment to their ethnic group” (p. 132) and speculated a connection between NSSI and a sense of belonging with one’s racial identity.

In a study of over 14,000 college students, focusing on religion and spirituality and self-injury, Kress, Newgent, Whitlock, and Mease (2015) found identifying as American Indian or Caucasian was positively associated with while identifying as Asian or Asian American was negatively associated the number of self-injury acts reported.

Gender. No studies were found that studied gender specifically, but it was often collected and reported within demographic information. In the previously mentioned study focusing on religion and spirituality and self-injury, Kress et al. (2015) found identifying as a woman was positively associated with self-injury while identifying as a man was negatively associated the number of self-injury acts reported.

Gender identity and sexual orientation. While the concepts of gender identity and sexual orientation likely affect student mental health differently, they are often studied together, often grouping individuals who identify as LGBTQAI* (lesbian, gay, bisexual, transgender, queer, asexual, intersex, and non-conforming and/or marginalized genders and/or sexual orientations) as one group. The studies found for this review consistently demonstrate that students who identify as LGBTQAI* have higher incidence of mental illness than students in the general student population (Byrd & McKinney, 2012; Fink, 2014; Grant, Odlaug, Derbyshire, Schreiber, Lust, & Christenson, 2014; Kerr, Santurri, & Peters, 2013; Kress et al., 2015).

In a study of over 2000 students at a large IHE, just over 5% of students identified as lesbian, gay, bi-sexual, or queer (LGBQ), which the researchers claimed to be consistent with other studies of student populations (Grant et al., 2014). These students were more likely to report histories of major depressive disorder than students who did not identify as LGBQ (32.1% compared to 15.2%) and social anxiety disorder (12.5% compared to 3.5%).” Grant et al. (2014) also found students who identified as LGBQ were also more likely to be overweight, depressed, and have higher levels of stress.

In the previously mentioned study of religion / spirituality and self-injury, Kress et al. (2015) reported a significant, negative association between self-injury and identifying as straight/mostly straight. This finding echoes the possibility that heterosexism may affect students’ mental health though it is not possible to decipher whether or not these results are due to campus climate using the current literature.

One study focused on sexual orientation, specifically on women and sexual orientation. Using 2008-2009 NCHA data, Kerr, Santurri, and Peters (2013) analyzed differences between women who indicated they identify as heterosexual, lesbian, and bisexual. Lesbian and bisexual women were significantly more likely to report to have felt overwhelming anxiety, to have a diagnosis of depression, to harm themselves, to consider suicide, and to attempt suicide compared to heterosexual women.

Religion and spirituality. Only one study reviewed explored religious and spiritual identities as they relate to self-injury. Kress et al. (2015) explored aspects of formal religion; aspects of spirituality, which were more loosely defined; life satisfaction; and finding meaning in life. Kress et al. (2015) found significant negative associations

between self-injury and life satisfaction, finding meaning in life, and the importance of spirituality.

Summary of Prevalence of Mental Illness in College Student Populations

Research consistently demonstrates that large percentages of college students are experiencing signs and symptoms of mental illness to varying degrees. Studies show slight increases in incidence of mental illness while campus mental health professionals claim the severity of illnesses present on campuses is increasing. Some populations seem to be at increased risk, which will be a growing concern for IHE's as they continue to grow more diverse. The following discussion of the causes of mental illness describe some of the consistency of mental illness within college student populations.

Causes of Mental Illness in College Student Populations

Campuses can expect, without exception, some students will start their college careers with a diagnosed mental illness and others will experience mental illness for the first time during their academic careers. The existence of mental illness in college student populations is inevitable, just as it is in the general population. While there are established factors that increase the risk of the onset of a mental illness (e.g. genetics, traumatic events, stress), the following literature supports claims that while it is possible to identify factors for higher risk, predicting the onset or exact effects of a mental illness in individual students is not possible.

In a study exploring indicators of mental health on campuses, Fink (2014) found "There were no individually significant predictors [of mental health] within the blocks representing student input measures." Miranda et al. (2015) searched for predictors of suicidal ideation in counseling center users at a 6-month follow up. They found the only

predictors of suicidal ideation at the 6-month follow up were the baseline depressive symptoms and the history of suicide attempts. In a 2013 study, Lamis and Jahn found the only significant predictor of suicide rumination (ongoing and persistent suicide ideation) was parent-child conflict.

In 2 studies that examined the students on campus during the mass shooting at Virginia Technical Institute and State University (Virginia Tech) in 2007, there were findings that while there were some predictors of depression and post-traumatic stress disorder (PTSD), such as a history of sexual trauma (Littleton, Grills-Taquechel, Axsom, Bye, & Buck, 2012), depression and PTSD emerged to some extent in all subpopulations studied and did not (within the time period studied) emerge in a majority of individuals in the sub-populations most at risk (Hughes, Brymer, Chiu, Fairbank, Jones, Pynoos, Rothwell, Steinberg, & Kessler, 2011). Even with a common traumatic event, mental illness was not predictable in individual students.

Protection from Mental Illness

While risk factors are well known (genetics, traumatic events, stress), less is known about protective factors. However, studies have confirmed that social connections can protect individuals against the risk of mental illness. Mason, Zaharakis, and Benotsch (2014) studied friendship, substance use, and psychiatric symptoms in a sample of 670 students at a large, southeastern university. Students who indicated closeness to the three friends with whom they spent the most time had significantly reduced psychiatric symptoms. No studies found in this review explored protective factors within specific populations. All studies reviewed focused on general student populations.

Risk Factors for Specific Subpopulations

While predicting the onset of mental illness in individual students is not possible, researchers have identified risk factors. For some specific populations of students, those risk factors are magnified. Studies were found that more closely examined race / ethnicity, gender, generational identities, and gender identity / sexual orientation. No studies were found that focused on mental health risk factors and ability, religion, socio-economic status, or other identities.

Race and ethnicity. Brittain, Umaña-Taylor, Zamboanga, Kim, Weisskirch, Castillo, Whitbourne, Hurley, Huynh, Brown, and Caraway (2013) studied depressive symptoms, ethnic affirmation, and ethnic centrality in African American, Latino/a, and Asian American students. They found higher levels of ethnic affirmation were associated with fewer depressive symptoms for all 3 identities. Latino/a and Asian American students who indicated their ethnicity was important to their identity (ethnic centrality) were even less likely to self-report depressive symptoms. Centrality did not moderate depressive symptoms for African American students, which, Brittain et al. (2013) noted, is contradictory to some other studies. However, the African American students within this sample were in campus environments where African American students were much less represented than the Latino/a and Asian American students in this sample; therefore, campus climate may have played a role in influencing symptoms.

Chen, Szalacha, and Menon (2014) studied college students who identified as Asian Pacific Islander. They found a positive association between students' perceptions of discrimination and symptoms of both depression and anxiety. These findings echo the

idea that societal prejudice and/or campus climate may influence psychiatric symptoms rather than some races or ethnicities being biologically at higher risk of mental illness.

Gender and relationship status. Whitton, Weitbrecht, Kuryluk, and Bruner (2013) studied gender differences in the context of depressive symptoms and relationship status. They found women who identified as single were more likely to indicate depressive symptoms than men in the sample. In college populations, relationship status may influence the mental health of women more than men.

Generational risk factors. Some authors claim that certain generations, such as Millennials (individuals who graduated high school during or after the year 2000) may be at higher risk for mental illness. In Watkins, Hunt, and Eisenberg's (2011) study of IHE administrators and mental health professionals, one director voiced, "Millennials have brought with them a level of anxiety and perfectionism and OCD and ADD that contribute to record numbers of panic attacks and panic disorders and things like that" (p. 325). Many IHE's foster environments that produce stress due to academic rigor and competition; generational differences may emphasize competitiveness and thus increased stress and anxiety (Watkins, Hunt, & Eisenberg, 2011, p. 325).

Barton and Hirsch (2016) studied permission parenting and academic entitlement, characteristics associated with the Millennial generation. They found permissive parenting held a relationship with academic entitlement, which was negatively related to psychological well-being. The researchers also found cross-sex relationships between permission parenting and depressive symptoms: females with permissive fathers and males with permissive mothers showed higher rates of depression.

Stigmatized identities. Students who hold identities that are stigmatized on a campus are more at risk to develop a mental illness due to campus climate and culture. Byrd and McKinney (2012) found “students who had more negative experiences with the campus climate (i.e., being singled out because of one’s race/ethnicity, gender, or sexual orientation; perceiving a racially tense campus climate) were more likely to experience worse mental health” (p. 191). Quinn et al. (2014) demonstrated support for this claim, explaining of stigmatized identities: “...having such an identity is seen as a mark of failure or shame as well as being experienced as something that devalues the self in the eyes of others and should be hidden” (p. 3). This active concealment can be stressful and could add to a student’s risk for mental illness.

While holding a stigmatized identity can have emotional effects, Quinn et al. (2014) emphasized the range of experiences for individuals: “People with concealable stigmatized identities – socially devalued identities that can be hidden from others – show great variability in their experience of psychological distress” (p. 1). While stigmatized identities may affect an individual’s mental health, the extent of this effect depends on the individual, the campus climate, and the characteristics of this aspect of identity. Socially hiding an identity (e.g. sexual orientation) may allow a student to feel as if they belong externally, but they may struggle internally with the tension between belonging and authenticity. Multiple studies have confirmed that students who identify as LGBTQAI* are more at risk for mental illness than students in the general population, potentially due to increased stress and anxiety from some campus climates (Byrd & McKinney, 2012; Fink, 2014).

Many studies have explored the concept of “belonging” in relation to mental health. Ploskonka and Servaty-Seib (2015) found belongingness to be negatively associated with suicide ideation for college students. Family belongingness was particularly influential, suggesting that the stigma of a particular identity may affect a student deeply, regardless of campus climate.

Summary of Causes of Mental Illness

Mental illness can stem from a variety of factors, including genetics, childhood experiences, social environments, and campus climates. While risk factors can be identified, as can individuals with significant risk factors, mental illness cannot be predicted in individual students. Similarly, while well researched, effects of mental illness on individual students cannot be predicted. Regardless, it is important to understand the range and depth of the effects to ensure students have access to appropriate care and so that IHE’s can justify campus mental health resources and attention to care.

Effects of Mental Illness

Untreated mental illness affects students in a multitude of ways. The literature discusses personal, academic, professional, and social effects, which impact students with mental illnesses, their communities, and their institution as a whole in terms of retention and attrition.

Personal Effects

Byrd and McKinney (2012) found correlations between improved mental health and “coping abilities, confidence in communication skills, strong spiritual identity, academic self-confidence, heterosexual orientation, intergroup awareness, social

engagement, and institutional satisfaction” (p. 188). While these correlations do not imply causation, there are clear connections between mental health and a multitude of characteristics and abilities necessary for academic success.

Academic Effects

While an increasing number of students with already existing diagnoses of mental illness are entering academic environments, mental illness can still be a significant barrier to higher education for many people. A study exploring barriers to higher education and employment for individuals with mental illness found “[t]he greatest barrier for participants to higher education was symptoms of mental illness” (Schindler & Kientz, 2013, p. 37). When 48 individuals with mental illness were asked about barriers to succeeding in higher education, the top 5 responses were “1) fears and anxieties; 2) progression of psychiatric symptoms; 3) unmanageable stress; 4) lost motivation; and 5) [inability] to concentrate” (Schindler & Kientz, 2013, p. 34). Most IHE’s demand a level of confidence, self-management, motivation, and concentration, and the inability to consistently perform, and the fears that go along with that, make higher education a difficult goal for many individuals.

Once in school, students with mental illness may experience academic performance difficulties. In an examination of socio-ecological factors associated with mental health, Byrd and McKinney (2012) found “[grade point average] was the only background characteristic that was a significant correlate of overall mental health” (p. 191). In the Healthy Minds Study, 60% of students reported academic impairment from emotional or mental difficulties (Eisenberg et al., 2012). Students struggling with their

mental health are more likely to struggle with academic performance. These academic difficulties then influence a student's ability to remain in school.

Administrators and others concerned with retention and attrition rates should consider strategies to foster mentally healthy campuses due to the correlation between mental illness and departing the university before graduation. The Healthy Minds Study pilot study, which included 2900 University of Michigan students from 2005 to 2008, reported, "We found that being depressed at baseline (as measured by the Patient Health Questionnaire-9) was associated with a two-fold increase in the likelihood of departing from the institution without graduating, even after controlling for prior academic record (test scores and grades) and other individual characteristics" (Health Minds Network, 2013). Similar results were found when the study was duplicated at another institution.

A longitudinal study examined diagnoses and enrollment status of over 1000 undergraduate students over 4 years (Arria et al., 2013). The researchers found students with diagnoses of some mental illnesses were at an increased risk for discontinuing their studies. However, when examined more closely, the only significant results showed students who received their first diagnosis of depression while in college were twice as likely to discontinue their studies as the general student population. Students who entered college with a diagnosis were no more at risk than other students.

Professional Effects

Few studies examine the effects of mental illness on college students after college. However, Walker and Peterson (2012) sampled 158 undergraduate students using the Career Thoughts Inventory (CTI) and the Occupational Alternatives Questionnaire (OAQ) to explore associations between symptoms of depression and career

thoughts and indecision. They found “...measures of career thoughts and career indecision, specifically all four dimensions of the CTI and the OAQ were significantly related to symptoms of depression” (p. 502). This study confirms other studies that show that mental illness can impact academic and professional goals (Mestdagh & Hansen, 2014).

Social Effects

Mental illness affects the individual with mental illness and often also affects the individual’s social network and potentially the community. The literature describes significant social effects on and between individuals, social networks, and the community.

Mestdagh and Hansen (2014) performed a qualitative review of literature about individuals with schizophrenia who sought care in community facilities. They found individuals with schizophrenia “...encounter[ed] many difficulties on an interpersonal level, such as the reduction of social contacts they experience as a result of the schizophrenia diagnosis... [T]his loss of social interactions is noticed in the closer social circle like relatives, partners and friends” (Mestdagh & Hansen, 2014, n.p.). Upon public knowledge of some diagnoses, individuals with mental illness are at risk to lose some people within their social support networks. The stress of these losses can then exacerbate symptoms.

Chung et al. (2011) explained, “The impact of depression, suicide attempts, and completed suicides not only have serious consequences for these affected students, but also friends, family, faculty, and the campus community” (p. 628). When students experience the signs and symptoms of mental illness, particularly severe mental illness,

the effects ripple throughout their social environment. Friends and family may experience added stress due to concern for the student. Those in shared living situations may experience concern for the student, for themselves, and/or others impacted by the student's behavior. These social circles may experience stress, concern, confusion, fear, anxiety, or a variety of other emotions that can impact other individuals' abilities to flourish.

More generally, in *Mental Health: A Report of the Surgeon General* (1999), the U.S. Department of Health and Human Services cited numerous effects of mental illness on communities. The report listed mental illness as the second highest disease burden on established market economies, just behind cardiovascular disease. In terms of specific illnesses, Major Depression ranked second behind ischemic heart disease effects on the economy. IHE's certainly feel the financial effects of mental illness in providing resources (facilities, staff, programs, supplies) for counseling centers and in the time and energy required of other faculty, staff, and administrators when issues arise as a result of untreated mental illness.

In severe situations, campus communities may experience suicide contagion: when a death by suicide, suicide attempt, or cluster of suicides influence additional individuals to attempt suicide within a short period of time. Studies have explored suicide clusters statistically and have found evidence that some suicide clusters show evidence of contagion (MacKenzie, 2013). Abrutyn and Mueller (2015) suggest closed communities, such as schools, are at higher risk for suicide contagion because negative emotions can spread quickly throughout close, closed communities. IHE's that

experience any student suicides may be at risk for additional suicides, which can then affect campus communities exponentially.

Summary of the Effects of Mental Illness

Students with signs and symptoms may experience personal, academic, professional and/or social effects. All of these effects can exacerbate the others as well as their initial signs and symptoms. Although most campuses provide some level of access to effective treatment options to relieve signs and symptoms of mental illness, most students do not seek help, despite the numerous negative effects. The following section explores the literature on help-seeking behaviors among college students.

Help-Seeking Behaviors

The literature consistently demonstrates that although a high number of students are experiencing signs and symptoms of mental illness, a low percentage of those students are seeking help, and even fewer use on-campus programs. This section will explore the literature regarding student treatment options, the statistics involving student use of professional mental health treatment, and the suggested supports and barriers to seeking treatment.

Availability of Student Treatment Options

The only legal mental health requirements of IHE's are covered by the Americans with Disabilities Act (ADA). The ADA requires accommodation but does not describe specific requirements in terms of structure, staffing, policies, nor processes. Most IHE's provide access to some extent to proven, effective treatments and care options for mental health.

Most four-year, private and public, non-profit college and universities have a counseling center staffed by qualified mental health professionals (Gallagher, 2014). In an annual survey by the Association for University and College Counseling Center Directors (AUCCCD), directors reported that 64.4% of colleges offered psychiatric services on their campuses, an increase from the previous year (Reetz, Barr, & Krylowicz, 2013, p. 12). In a 2014 annual survey of directors (or equivalent) of campus counseling centers, only 4.7% of institutions charge a fee for mental health services, and 9% of students are referred to resources off-campus (Gallagher, p. 4). Most universities can accommodate most students, on campus, free of charge.

IHE's seem to be budgeting more resources for mental health work on campuses. A survey of 275 directors reported a gain of 94 and a loss of 30 staff positions in the past year (Gallagher, 2014). Directors in this study reported increases in staff training for severe cases (49%), part-time counselors (29%), staff (26%), psychiatric consulting hours (20%), and staff training for time-limited therapy (14%). Percentages for larger schools were higher than those at smaller schools. Directors also reported expanded crisis services, gatekeeper training, and skills training for clients.

Outside of the counseling center, directors reported increased campus-wide efforts to improve mental health. Over half of the directors in Gallagher's (2014) survey reported serving on an interdisciplinary committee for identification of students of concern (i.e. students displaying distressed or distressing behaviors). Directors reported a 64% increase in the amount of time in training for faculty and staff. Forty percent of directors reported the availability of online mental health education. Over half of

directors reported expanding external referral networks and referring more students off campus (Gallagher, 2014).

While Counseling Centers are increasingly standard on campuses and resources may be increasing at some institutions, staffing and resources continue to be a problem for many institutions. Gallagher (2014) found “The ratio of counselors to clients, on average, was 1 to 2081 students with smaller schools having much better ratios” (Gallagher, 2014, p. 4). If over half of college students are experiencing signs and symptoms of mental illness, this number seems woefully low.

Effectiveness of Student Treatment Options

Research has demonstrated the effectiveness of treatment options for the range of mental illnesses (US Department of Health and Human Services, 1999). Counseling center directors and students seem to agree that available treatment options are effective. Counseling center directors cite that “44% [of counseling center clients] experience periods of severe distress (depression, anxiety, panic attacks, suicidal ideation etc.) but can be treated successfully with available treatment modalities” (Gallagher, 2014, p. 5). Several studies have confirmed students’ beliefs about the effectiveness of treatment options (Downs & Eisenberg, 2012; Miranda et al., 2015; Reetz, Barr, & Krylowicz, 2013). Miranda et al. (2015) found most students, regardless of race, believed counseling center recommendations were effective and were satisfied with the assistance provided in following through with these options. However, most students, particularly students with severe mental illness symptoms, are not using counseling centers regularly nor are they following through with treatment recommendations.

While student and staff perceptions skew towards effectiveness, research on individual practices is seldom conclusive and very little research exists that compares the effectiveness of campus mental health practices. In an evaluative review of 83 studies focusing on specific practices, Conley, Durlak, and Dickson (2013) found only 22% to 37% of effectiveness studies demonstrated significant results. More research is needed to conclude which campus mental health practices are the most effective in treating signs and symptoms of mental illness.

Student Use of Professional Mental Health Treatment

As effective treatment options for mental illness are available, seeking out treatment becomes key in the pursuit of mental health (US Department of Health and Human Services, 1999). The Spring 2014 NCHA reported that over a third of students surveyed had, at some point, received mental health services from a counselor, therapist, or psychologist; students also reported seeing psychiatrists, other medical providers, or clergy members (ACHA, Spring 2014, pp. 39-40). Nearly 1 in 5 students had received services from their on-campus counseling center or health services, and nearly 3 in 4 reported they would consider seeking help from a mental health professional if they were having a serious personal problem (pp. 39-40). The Healthy Minds study data, released in 2014, reported 22% of students had used therapy or counseling in the past year (Eisenberg et al., 2014), and 2014 annual survey of counseling center directors reported 11% of students have sought individual or group counseling on campus while another 30% were seen in other contexts (e.g. workshops) (Gallagher, 2014).

A meta-analysis of 22 studies that used the Attitudes towards Seeking Professional Psychological Help (ATSPPH) scale found increasingly negative attitudes of

American college students about seeking help (MacKenzie et al., 2014). The authors claimed students may be leaning towards pharmacology as opposed to psychotherapy when experiencing signs and symptoms of mental illness.

Students with signs and symptoms of mental illness. Encouragingly, a much higher percentage of students with diagnoses or positive screens of mental illness report participating in treatment than the general student population. Of students who are seeking treatment, 43% reported a lifetime history of suicide ideation, which is higher than percentages reported of the general student population (Miranda et al., 2015), implying increased treatment use in at least some students with suicide ideation. The Healthy Minds study cites 22% of students have used therapy or counseling in the past year while 46% of students with positive screens of depression or anxiety indicated they are participating in treatment (Eisenberg et al., 2014). While more students experiencing depression or anxiety are seeking treatment than in the general population, this still leaves over half of students with signs and symptoms untreated.

The percentages of students experiencing suicide ideation who are seeking help seem to be higher than students with diagnosed illnesses, but considering the severity of this symptom, the numbers are troubling. In a survey of college students who indicated they had experienced suicide ideation in the past 12 months, 51.5% received treatment, 40.9% received therapy, and 35.8% received medication (Downs & Eisenberg, 2012, p. 108). This leaves almost half of students with suicide ideation untreated. Downs and Eisenberg (2012) also reported “7.8% of suicidal respondents reported that they were mandated to treatment by campus staff, suggesting that campus policies designed to

identify at-risk students may be important factors in service use for some individuals” (p. 108). They did not report the process or success of mandated treatment.

Even students who do seek help are not doing so consistently. Using a survey of 124 students who had completed the intake process at one large, urban university, Miranda et al. (2015) reported “less than half of students actually followed through with recommendations (44%)...” even though most students felt the recommendations were effective and were satisfied with the level of assistance offered in following through with recommendations (p. 295).

Students who have attempted suicide. Similar to students experiencing suicide ideation, students who have attempted suicide seem to be seeking help at even higher rates than the general student population. In a study of 124 students who had gone through the intake process at the counseling center of an urban, public university, 15% reported a lifetime history of suicide attempts (Miranda et al., 2015), which is higher than the consistently reported percentages of students who have at some point attempted suicide. Of the 125 deaths by suicide reported by the 275 directors surveyed by Gallagher (2014), only 14% had visited the campus counseling center. It appears that students who attempt or die by suicide visit the counseling center at only slightly higher rates as the general student population but at extremely low rates considering the severity of their signs and symptoms.

Supports for Seeking Treatment

Most studies reviewed focused mostly or solely on barriers to seeking treatment, but a few studies also reported supports for help-seeking behaviors. While Downs and Eisenberg (2012) studied barriers to seeking treatment, they also found “A number of

factors related to attitudes, beliefs, and social networks were strongly associated with help seeking, suggesting that these are promising points of intervention for suicide prevention strategies” (p. 111). Over half of students who did seek help said that encouragement from others was important, and 89% reported some type of influence from others in their decision to seek help (p. 108). Social connectedness and influence is a consistent support for help-seeking behaviors in much of the literature.

Professional assistance with treatment maintenance may be another significant support for adherence to treatment plans. Adequate assistance in following through with treatment recommendations was associated with a 5 times higher odds of follow through in students who had gone through on-campus counseling intake procedures (Miranda et al., 2015). These findings echo the importance of social support in treatment adherence and suggest this support may be effective when it comes from counseling center professionals as well as close social connections.

Downs and Eisenberg (2012) claimed some support for compulsory treatment: in their study, some students with suicide ideation following mandated treatment received help who otherwise might not have. However, Ilagan, Vinson, Sharp, Ilagan, and Oberman (2015) found individuals in mandated treatment were more likely to indicate a “precontemplative” stage of change, and individuals in that stage saw much lower levels of improvement with signs and symptoms. While social effects and the availability treatment options have consistently proven value on campuses, the effectiveness of mandated treatment is not yet clear.

Barriers to Seeking Treatment

Vogel, Wade, and Ascherman (2009) stated what many of the following studies support: “Understanding the obstacles that college students face in seeking psychological services is an important issue for university administrators and educators” (p. 306).

Many studies have explored barriers to help-seeking behaviors at length. The studies in this section explicitly explore what staff and students cite as barriers to seeking help.

Many campus mental health practitioners cite their own constraints, which they perceive to limit help-seeking behavior in students. Often, available counseling appointments are filled soon into the semester, which causes students experiencing difficulties later in the semester to add their names to an increasingly long wait list. A survey of 13 mental health professionals involved in the Healthy Minds Study to improve campus mental health cited limited availability of appointments generally due to lack of qualified staff and limited physical space. (Watkins, Hunt, & Eisenberg, 2011).

Gallagher’s 2014 annual survey of counseling center directors cited an average ratio of 1 mental health professional per 2081 students (p. 4). With such large ratios, campus mental health professionals cannot match the need for their services, and IHE’s without other mental health care options will feel the effects of untreated mental illness in their student population, no matter how effective the treatment options provided.

While counseling staff report structural barriers to seeking help, students list more internal barriers. In Downs and Eisenberg’s (2012) study of students who have experienced suicide ideation in the past 12 months, the top 3 reasons cited for not seeking professional help were “I prefer to deal with issues on my own” (73.3%), “Stress is normal in college/graduate school” (52.2%), and “I question how serious my needs are”

(52.1%) (p. 110). Downs and Eisenberg (2012) noted, "...the top 10 barriers to treatment all pertained to personal attitudes or circumstances and most structural or institutional factors (e.g., convenience and perceptions about services) ranked in the bottom half" (p. 108). While structural and resource barriers may be of concern to counseling center staff, students' attitudes may be a bigger influence on their help-seeking behaviors.

Another study examined 157 students with 2 risk factors for suicide (Czyz et al., 2013). The top 3 reasons listed for not seeking treatment were "perception that professional help is not needed due to problems being minor or transient" (66.2%), "lack of time" (26.8%), and "preference for self-management of problems" (17.8%). Only 8.9% cited "negative past experiences with professional help seeking." These results echo Downs and Eisenberg's (2012) findings that students, even those who are at-risk for suicide, have internalized messages that they do not need help and should be able to manage their problems on their own.

Miranda et al. (2015) focused on differences between barriers cited by students with majority and minority racial and/or ethnic identities in treatment adherence of counseling center visitors after a 6-month follow up; however, they also included a list of barriers for the entire sample. The most common reasons students cited for not following recommendations were financial concerns (61%), preference for dealing with problems on their own (48%), not knowing if a problem warranted treatment (47%). (It is not known if the institution in this study had an associated cost for care or if students made unfounded assumptions about the cost of care.) In addition, Miranda et al. (2015) found the number of treatment barriers was negatively associated with following through with counseling center recommendations. With the exception of financial concerns, the

barriers listed in this study were similar to those in other studies with the additional information that the more barriers a student cites, the less likely they are to follow through with treatment.

These findings about student attitudes towards seeking treatment and findings described earlier in this review about the effects of mental illness on students create a curious tension. Students describe their experiences with mental illness as temporary and minor, yet in the NCHA, over half of students had felt “so depressed it was difficult to function” and “overwhelming anxiety.” These conflicting messages demonstrate the presence of social stigma within campus communities. Students know they are experiencing difficulties, but they believe these difficulties to be normal, experiences they ought to be able to handle on their own.

The stigma of mental illness arises consistently in the literature as a barrier to seeking help. Downs and Eisenberg (2012) found “...personal stigma was associated with lower odds of treatment use among suicidal students” (p. 111). They also found “perceived stigma was positively associated with treatment use” but speculate that treatment use may make their illness more salient and thus may be more aware of stigma (p. 111). While stigma was not an explicit focus nor major finding in the studies reviewed, it (or a directly related concept) was present in every study reviewed about help-seeking behaviors (Czyz et al., 2013; Downs & Eisenberg, 2012; Salzer, 2011; Sickel, Seacat, & Nabors, 2014; Shuchman, 2007). Stigma appears to affect all student populations and subpopulations, but some specific populations may feel its effects differently than others.

Specific Populations

Just as the prevalence of mental illness may differ in specific populations, studies show that help-seeking behaviors can also differ. In a qualitative research study, 13 directors of IHE counseling centers emphasized that increasing diversity creates increasing issues with existing campus mental health practices (Watkins, Hunt, & Eisenberg, 2012). In their review of the literature, Sickles, Seacat, and Nabors (2014) explained the ambiguity about how stigma affects help-seeking behaviors “particularly as it influences different social groups” (p. 208). The Jed Foundation (2007) recommends IHE’s “[c]onsider the ethnic, racial, cultural, and spiritual diversity of [their] student body and create protocols that reflect and support these differences” (Jed, 2006, p. 7). The literature in this section focuses on research that informs these increasing issues with specific populations of students.

Race and ethnicity. Many studies have explored differences of help-seeking behaviors among diverse racial and ethnic identities. Cheng, Kwan, and Sevig (2013) studied 609 students with racial or ethnic minority identities. About one-third of the students in their study reported they had been to counseling or psychotherapy, which is slightly lower than the percentages for general populations listed earlier. Post hoc analysis indicated the least use of counseling/psychotherapy among Asian Americans (18.8%), followed by African Americans (38.8%), then Latino Americans (48.6%). (p. 104).

In Cheng, Kwan, and Sevig’s (2013) study, “[p]erceived [racial or ethnic] discrimination was significantly and positively associated with all stigma variables for Asian Americans, but was only significantly associated with perceived stigmatization by

friends and professors/academic departments for African Americans and Latino Americans” (p. 104). Asian Americans also scored higher than other groups studied in perceived stigmatization by family for seeking psychological help, perceived stigmatization by friends, and self-stigma. While this study did not claim causation, Asian American students in this study were least likely to seek help, which implies some elements of perceived stigma and self-stigma are influencing help-seeking behaviors. This study also showed a connection between personal and social stigma as “perceived stigmatization by others significantly and positively predicted self-stigma across REM groups” (p. 108). Cheng, Kwan, and Sevig (2013) echoed findings from other studies and suggested that even small amounts of social stigma may affect help-seeking behaviors.

Miranda et al. (2015) studied the differences of depressive symptoms, suicide attempts, and suicide ideation between “racial/ethnic” minority students and “white” students. Students (n=124) were surveyed after intake at a campus counseling center and again 6 months later. Students in the racial/ethnic minority group were less likely have previous mental health treatment (53%) and mental health treatment use within the 6 month follow-up period (31%) than students in the white group (89% and 52%, respectively).

Students in the racial/ethnic minority group endorsed a greater number of barriers to treatment than students in the white group (Miranda et al., 2015). They also more often anticipated future barriers. Miranda et al. (2015) found the number of barriers any students cited were significantly associated with lower levels of treatment. Racial/ethnic minority students most often cited “lack of time” as the most salient barrier to treatment

(62%). However, they also cited “fear of what others (besides friends and family) would think of them” (28%) more than 4 times as often as white students (9%).

In the previously cited Downs and Eisenberg (2012) study of students with suicide ideation, Asian and Latino students were less likely to use treatment compared with white peers. Black students were also less likely to use treatment than white peers, but when other factors were controlled, the difference was not significant. Separate analyses by different racial/ethnic minority groups were not conducted due to insufficient participants of each racial/ethnic group in the sample.

Asian American students. Several studies explore help-seeking behaviors and related topics within Asian American student populations. While the studies focused on different aspects of help seeking, they all report some potential cultural differences in perspectives about seeking help for mental illness between some Asian American students and the general student population.

In a study of 107 Asian American college students, Ting and Hwang (2009) found that social conflict seemed to be a significant variable and more important than social support in influencing help-seeking behaviors. They also noted that these findings were somewhat inconsistent with other students, which could be a result of the difficulty all studies have in conceptualizing acculturation, particularly as the students in this study were not disaggregated by ethnicity.

Lin (2012) focused specifically on Chinese Americans and found a theme of “shame” when examining experiences with mental illness. Of the participants who self-reported mental illness, one-third felt shame in relation to their diagnosis. Lin (2012) speculates that these feelings of shame stem from a pressure to fit Chinese American

stereotypes of being in control, from cultural influences, and from images of expectations (p. 749). Lin (2012) quotes one participant on “what it means to be Chinese: “what it means to be Chinese: ‘I guess, just by definition of being Chinese, you [are] suppose to [sic] be in total control of your feelings, and not overreact and act out in public.” While these findings can inform work with Chinese American students, the implications are limited by the small sample (16 participants) and that this study was of members of the general population, not college students. Selection of these participants was not well detailed.

Age. While a large percentage of college students are similar in age and belong to the same generation, there will likely be generational differences in perspectives on seeking help for signs and symptoms of mental illness. Many traditional campus mental health practices were developed by and for previous generations, and the literature shows some differences in mental health needs for the current generation of college students. A qualitative research study of counseling center directors, some directors speculated that perhaps many Millennials grew up with parents or guardians who did things for them, so they may have trouble with resiliency and making decisions on their own may be difficult. (Watkins, Hunt, & Eisenberg, 2011).

Gender. Downs and Eisenberg (2012), in their study of students with suicide ideation found no significant differences in gender in regards to service use. In a review of the literature, Walker and Peterson (2012) reported some studies found no gender differences. No studies reviewed focused on gender differences in help-seeking behaviors and those who included gender in demographic data did not report any significant differences.

Sexual orientation. Research consistently demonstrates that while individuals who identify as LGBTQA* may be more likely to experience signs and symptoms of mental illness than students who identify as heterosexual, students who identify as LGBTQA* are also more likely to seek help. Two studies reviewed reported some results related to sexual orientation.

Downs and Eisenberg (2012) found “GLBQ [gay, lesbian, bisexual, and queer] students were more likely to use treatment compared to heterosexual peers” (p. 108). In their study, only 3.1% of students indicated that “Service providers aren’t sensitive enough to sexual identity issues.” (p.110). While some students may feel some stigma about their sexual orientation, GLBQ students seem to feel more comfortable seeking help on campus than their heterosexual classmates.

Kerr, Santurri, and Peters (2013) focused their study on women who identify as heterosexual, lesbian, and bisexual. Like Downs and Eisenberg’s (2012) findings, Kerr, Santurri, and Peters (2013) confirmed lesbian and bisexual women were more likely than heterosexual women to seek help in every category of the ACHA except in seeking help from clergy, which was similar to reports from heterosexual women. Lesbian and bisexual women were also more likely to report they would seek mental health services if they were experiencing a difficult, personal problem.

Graduate students. In a review of the literature, Benshoff, Cashwell, and Rowell (2015) found evidence that graduate students may be even less likely to use on-campus services. They claimed most on-campus services target traditionally-aged, undergraduate students. In addition, graduate students may also experience technical barriers to seeking help, such as scheduling, parking, and diminished privacy, as large

barriers as they are less likely to live on campus and more likely to have significant obligations apart from their lives as students.

Intersectionality. The intersections between identities have not been explored thoroughly by the literature. Some studies focusing on specific populations mention other demographic information, but few found significant intersectional differences in the concepts explored. As Watkins, Hunt, and Eisenberg (2012) explain in their study of campus administrators, care for specific populations should be grounded in the experience of those populations, and experiences differ based on combinations of identities. Intersectional identities and their relationship to mental health is an area ripe for exploration.

Summary of Help-Seeking Behaviors

While students experiencing signs and symptoms of mental illness are seeking help at higher rates than students in the general college student population, a large percentage of students with mental illness have not sought and are not receiving treatment. The biggest supports for treatment seeking seem to be social in nature: encouragement from others to seek help. The most prominent barriers seem to be student attitudes about the seriousness of their symptoms or the effectiveness of treatment options. The stigma of mental illness arises consistently as a negative association in studies of help-seeking behaviors and seems to affect some specific subpopulations even more than the general college student population.

The Stigma of Mental Illness

While the extent to which stigma affects individuals with mental illness and their help-seeking behaviors, the stigma of mental illness and/or related concepts (e.g. shame)

arose in nearly every study reviewed that explored help-seeking behaviors. Sickles, Seacat, and Nabors (2014) confirmed this finding in their own review of the literature: “It is important to note that in all of the aforementioned studies, social and/or personal [mental health stigma] was consistently reported” (p. 208). This section defines stigma, describes the prevalence of stigma, presents an oft-cited model of stigma, and lists the effects of stigma reported in the literature.

Definition of Stigma

The American Psychological Association (APA) (VandenBos, 2007) defines stigma as

the negative social attitude to a characteristic of an individual that may be regarded as a mental, physical, or social deficiency. A stigma implies social disapproval and can lead unfairly to discrimination against and exclusion of the individual. (n.p.)

While stigma can apply to a variety of social characteristics, this review will apply this definition to the stigma of mental illness.

Prevalence of Stigma

As discussed above, stigma (or a nearly identical concept) appeared in nearly every study reviewed that examined help-seeking behaviors (Cheng, Kwan, & Servig, 2013; Czyz et al., 2013; Department of Health and Human Services, 1999; Downs & Eisenberg, 2012; Lin, 2012; MacKenzie et al., 2014; Sickles, Seacat, & Nabors, 2014; Ting & Hwang, 2009; Zellman, Madden, & Aguinga, 2014). Despite high percentages of students self-reporting severe signs and symptoms of mental illness, students seem to have internalized messages that mental, emotional, and behavioral struggles during college are normal, and they should be able to handle their problems on their own. The

exposure of mental illness carries negative perceptions within students' communities, and therefore, they may be less likely to admit to difficulties to themselves and others.

Several researchers described the presence of significant stigma not only in the general environment or campus environment but also within the spaces where individuals seek help. In a review of qualitative studies about individuals with schizophrenia in community care, Mestdagh and Hansen (2014) describe a troubling pattern:

“Surprisingly... stigmatising behaviour not only occurs when coming into contact with people with limited knowledge or familiarity with schizophrenia, but is a common experience in contacts with health care [sic] professionals as well” (n.p.). Zellman, Madden, and Aguinga (2014) studied students in social work courses; they found that regardless of the number of mental-health-related courses students had taken, there was a range of stigmatizing attitudes and prejudices against individuals with mental illness. These results are troubling considering the negative impact of stigma on help-seeking behaviors.

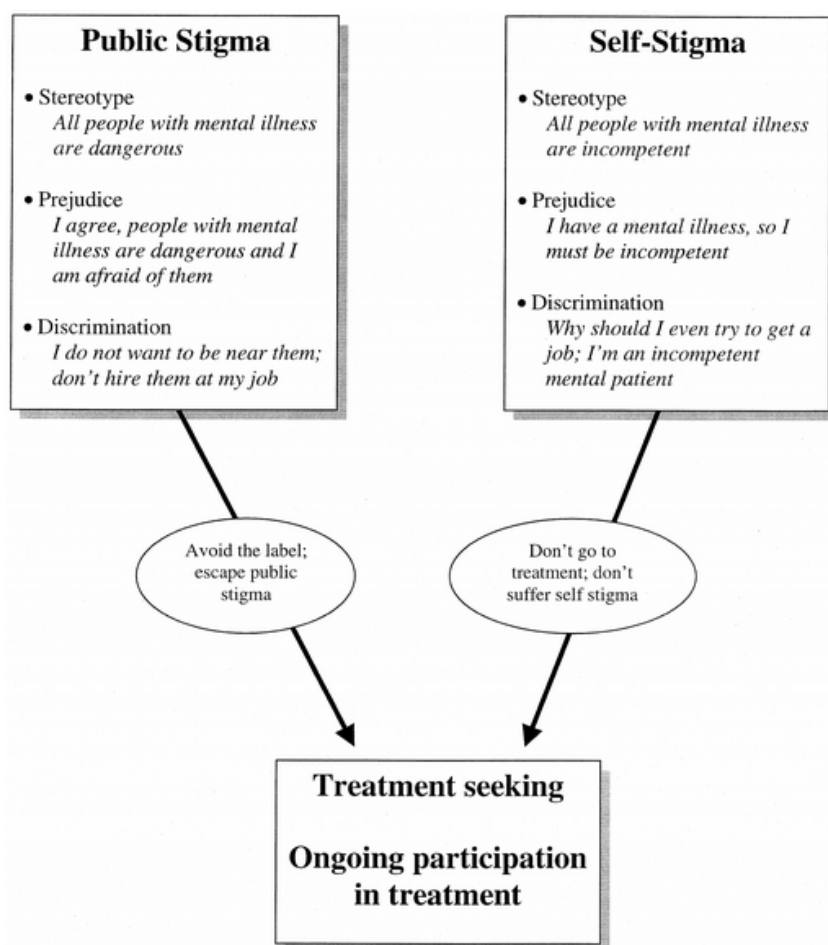
Corrigan's Model of Stigma

While holding the APA definition of stigma, this review will use Corrigan's (2004) model of stigma due to its frequent use within help-seeking and stigma of mental illness literature (Ascherman, Vogel & Wade, 2009; Britt, Wright, & Moore, 2012; Cheng, Kwan, & Sevig, 2013; Cummings, Lucas, & Druss, 2013; Downs & Eisenberg, 2012; Kassam, Papish, Modgill, & Patten, 2012; Mestdagh & Hansen, 2014; Quinn et al., 2014). Corrigan (2004) divides stigma into 2 forms (personal and social stigma), describes 4 components of stigma (cues, stereotypes, prejudice, and discrimination) and describes 3 strategies for reducing stigma (contact, education, and protest).

Social and personal stigma. Corrigan (2004) divides stigma into social and personal stigma. Social (or public) stigma is the stigma one perceives from one's environment. This stigma may influence an individual's stereotypes, prejudice, and discrimination. Personal (or self) stigma is the stigma someone holds about individuals with mental illness or their own mental health. This stigma can influence an individual's attitudes or behaviors in the way they react to others with mental illness or to their own signs, symptoms, and treatment.

Figure 1

Corrigan's (2004) Model of Stigma



According to some studies, within college student populations, social stigma seems to be consistently higher than personal stigma, yet there is also a positive correlation between the two, suggesting they influence each other (Downs & Eisenberg, 2012). The 2014 report from the Healthy Minds study (Eisenberg et al., 2014) showed relatively low levels of social stigma in the general student population, yet respondents perceived high levels of social stigma, confirming Downs and Eisenberg's (2012) findings. While 98% of respondents in the Healthy Minds study indicated they would "willingly accept someone who has received mental health treatment as a close friend," only 85% felt that most people would do the same. Only 15% felt "receiving mental health treatment is a sign of personal failure," yet 40% agreed that most people feel that way. Eight percent "would think less of a person who has received mental health treatment, but 48% felt most people would think less of someone (Eisenberg et al., 2014, p. 7). These findings highlight the differences in social and perceived stigma, both of which may then influence help-seeking behaviors.

The statistics in the Healthy Minds Study echo published data by the Center for Disease Control and Prevention (CDC, 2013), which cite that 89% of adults without symptoms of mental illness agree that individuals with mental illness can lead normal lives while only 78% of adults with symptoms of mental illness endorsed the same statement. Nearly two-thirds of adults believe people are caring and sympathetic to individuals with mental illness while nearly one-third of adults with symptoms of mental illness endorsed the same statement. While social stigma may be lower than perceived, perceptions of stigma are more likely to influence help-seeking behaviors.

Social stigma seems to influence personal stigma, but the two concepts do not perfectly correlate. College students indicate, for the most part, they care about individuals with mental illness; however, they also indicate their environment does not consistently deliver a message of care. This tension may indicate the influence of campus culture regarding mental illness, the presence of stigma in the environment, and a desire to change that culture.

Stereotypes, prejudice, and discrimination. Cues are behavioral patterns that one might assume indicates mental illness. Noticing these cues may then cause a person to stereotype (cognitive reactions) an individual with mental illness. Corrigan (2004) describes the following stereotypes: “Commonly held stereotypes about people with mental illness include violence (people with mental illness are dangerous), incompetence (they are incapable of independent living or real work), and blame (because of weak character, they are responsible for the onset and continuation of their disorders...)” (p. 615). These stereotypes then influence the attitudes a person might have towards an individual with mental illness; these attitudes are prejudice (emotional reactions). Prejudice then leads to discrimination (behavioral reactions), which is a behavior or action that treats an individual with mental illness differently than an individual presumed not to have a mental illness, solely based on assumptions about people with mental illness.

One important aspect of the stigma of mental illness, particularly in relation to communities and help-seeking, is that individuals can work to conceal their signs and symptoms in an attempt to avoid others placing stigma on them. Corrigan and Matthews (2003) explained, “Research has suggested that people with concealable stigmas (people

who are gay, of minority faith-based communities, or with mental illness) decide to avoid this harm by hiding their stigma and staying in the closet.” Corrigan (2004) further explained, “Alternatively, they may opt to avoid the stigma altogether by denying their group status and by not seeking the institutions that mark them (i.e., mental health care)” (p. 615). Due to the fear of stereotypes, prejudice, and discrimination, individuals with mental illness may self-conceal the signs and symptoms of their illness, or their treatment, to avoid the stigma of mental illness.

In their review of qualitative literature about individuals with schizophrenia using community treatment options, Mestdagh and Hansen (2014) describe the connections between stereotypes, prejudice, and discrimination: “[Stereotypes give] rise to prejudice, whenever there is an agreement with the belief and/or a negative emotional reaction towards it. As a consequence, this leads to behavioural responses such as avoidance and withholding help” (Mestdagh & Hansen, 2014, n.p.). Lin (2012) gives an example of a stereotype where one participant “...discussed one instance where a stranger told him that his gait betrayed him as someone who is on psychiatric medication” (p. 749). Mestdagh and Hansen (2014) describe the stereotype of individuals with schizophrenia as being strange while prejudices include dangerousness and incompetence.

Mestdagh and Hansen (2014) found common prejudices to include a tendency towards violence and unpredictability, possibly because of the media portrayals of mental illness in the context of court and police reporting, which lead to public bias and the spread of stigma.

Contact, education, and protest. In his body of work, Corrigan (2004) cited 3 strategies for reducing stigma: contact, education, and protest. Contact involves

interaction and learning about individuals with mental illness, whether in person or through media. Contact increases knowledge of mental illness, increases understanding of how it affects each individual differently, promotes the value of individuals with mental illness in their communities, and, in doing so, decreases stereotypes of individuals with mental illness. Education can involve increased learning about any aspect of mental health, mental illness, individuals with mental illness, or the effects and/or methods of treatment. Learning facts about mental health and mental illness reduces misunderstanding and ignorance that can reinforce stereotypes, prejudice, and discrimination. Education can also empower individuals to take action, particularly in caring for individuals within their community. Protest is active involvement in changing the way society thinks about mental health and mental illness (particularly in the media), changing the way people with mental illness are understood or treated, or changing systems that affect mental health or individuals with mental illness. Protest activities reinforce the importance of caring for self and others, which then decreases the stigma one associates with mental illness.

Corrigan noted the importance of media coverage when stories involve individuals with mental illness. By intentionally engaging contact, education, and protest, Corrigan (2004) explained, “These efforts send two messages: to the media, stop reporting inaccurate representations of mental illness; to the public, stop believing negative views about mental illness.” (Corrigan, 2004, p 620). Stigmatizing messages in the media may increase stigma, which can then increase self-concealment of mental illness and decrease help-seeking behaviors. Messages of care and hope can decrease stigma, which can then decrease self-concealment and increase help-seeking behaviors.

No studies reviewed used Corrigan's (2004) model to describe the effectiveness of practices. Studies were found that tested the effectiveness of individual practices and could be categorized within Corrigan's (2004) model, but these studies were excluded as the intent of this review was not to evaluate individual practices.

Only one study was found with a focus on contact with individuals with mental illness in college student populations. Anderson, Jeon, Blenner, Wiener, and Hope (2015) found supporting evidence for Corrigan's (2004) concept of contact. In their study, students who had past involvement with mental health treatment were much less likely to endorse a desire for social distance from individuals with social anxiety disorder or depression as well less viewing "social anxiety as significantly less the person's fault, more common, more treatable with medication, and more embarrassing to have" (p. 134).

Conley, Durlak, and Dickson (2013) performed an evaluative review of research of individual campus mental health practices, and their findings provide some insight about practices and demonstrate the need for additional research in this area. Their most supported finding was that skills-oriented interventions with supervised practice were the most effective educational programs. Their findings suggest a need for participants to actively engage in the learning with facilitator support.

Effects of Stigma

The literature does not offer conclusions about the extent to which stigma exists nor about the extent of its effects, but all studies that discussed stigma agreed that it affects college students and their environments. The following section reviews the findings about the effects of stigma.

In their review of the literature, Sickles, Seacat, and Nabors (2014) found a variety of effects of stigma on an individual with mental illness: “While many barriers may prevent individuals from seeking mental health treatment, research indicates that [mental health stigma] is both common and has wide-ranging mental and physical health implications for the individual experiencing it” (p. 208). As this was a review of the literature, the authors did not include a comprehensive list of physical effects.

A diagnosis can affect an individual’s social connections. The Department of Health and Human Services (1999) described the social effects of the stigma of mental illness: “Stigma leads others to avoid living, socializing or working with, renting to, or employing people with mental disorders, especially severe disorders such as schizophrenia” (p. 6). Mestdagh and Hansen (2014) reported a reduction of social contacts for individuals diagnosed with schizophrenia, with particular emphasis on diminished contact with relatives, partners, and friends. This is worrisome as Mestdagh and Hansen (2014) support Corrigan’s (2004) model of stigma and the importance of contact in decreasing stigma. Anderson et al. (2015) studied a general student population and found a significant number of students prefer a greater social distance from a person with mental illness. Contact with individuals with mental illness may help decrease stigma yet those who hold high levels of social stigma may avoid contact with individuals with mental illness as much as possible.

Studies that focused on specific populations of students echo the impact of stigma on opportunities in the college environment. Lin (2012) explained, “Those who are stigmatized are often avoided and deprived of opportunities available to others” (Lin,

2012, p. 748). These effects may exacerbate an individual's existing signs and symptoms.

Lastly, and most significantly for this review, stigma is continually, negatively linked to help-seeking behaviors, as described earlier in this review (Downs & Eisenberg, 2012; Sickel, Seacat, & Nabors, 2014). Corrigan (2004) describes two major effects of stigma as they relate to help-seeking behaviors: "(a) Many people with mental illness never pursue treatment, and (b) others begin treatment but fail to fully adhere to services as prescribed" (p. 614). With the high percentages of college students experiencing signs and symptoms of mental illness, these two outcomes of stigma are troublesome.

Campus Practices to Combat Stigma

Mental health professionals are using traditional structures as well as new initiatives to decrease levels of stigma on campuses with the hopes of increasing help-seeking behaviors. However, there is little research comparing practices and linking practice to levels of perceived stigma and stigmatizing attitudes on campuses.

Vogel, Wade, and Ascherman (2009) developed an instrument (Perceptions of Stigmatization by Others for Seeking Help [PSOSH]) and studied a sample of 130 college students on the effects of stigma on help-seeking behaviors. Their findings have practical implications for IHE's: "Changing the social stigma associated with seeking psychological help might provide greater access to treatment for those who could benefit from it" (Vogel, Wade, & Ascherman, 2009, p. 306). The sampled college students reported low levels of social stigma in their interactions. However, "these perceptions of stigma... significantly added to the overall prediction of self-stigma over and above the other assessed aspects of stigma. As such, even small amounts of stigmatization from

one's social network may matter" (Vogel, Wade, & Ascherman, 2009, p. 307).

Therefore, IHE's must tackle issues with stigma at every level and within every system in their campus communities in order to increase help-seeking behaviors.

Summary of the Stigma of Mental Illness

The stigma of mental illness arises consistently in the literature of help-seeking behaviors and campus mental health. While the literature does not consistently confirm the amount of stigma present on campuses nor the extent of its effects, it does suggest that any amount of stigma may affect help-seeking behaviors. While campaigns to fight the stigma of mental illness exist, no research was found to prove the effectiveness of any campus mental health practice to lower stigma. The following section explores research, policy, and professional opinion regarding campus mental health practices and campus mental health culture.

Campus Culture

This section will explore institutional practices that likely influence campus culture regarding mental health. Recommendations from scholars and the Jed Foundation, an organization that works to actively promote campus mental health, are provided in regards to IHE goals and mental health practices. A review of research and campus mental health conferences provide an overview of traditional and emerging campus mental health practices.

Campus Goals for Help-Seeking Behaviors

While eradicating mental illness from college student populations is not currently possible, IHE's can create campus conditions that promote and support mental health and mentally healthy behaviors. In 2011, the Jed Foundation (a non-profit organization that

works to “promote emotional health and prevent suicide among college and university students [Jed, 2011]) and the Education Development Center (EDC, Inc.; a worldwide organization that “designs, implements, and evaluations programs to improve education, health, and economic opportunity” [EDC, Inc, 2015])) co-authored a free publication for IHE’s titled *A Guide to Campus Mental Health Action Planning*. In this publication, the Jed Foundation and EDC, Inc. (2011) suggest the following campus goals:

Mental health promotion / prevention

- “Decrease the number of students with untreated mental health problems
- “Decrease barriers to receiving care
- “Decrease alcohol and other drug use
- “Increase problem-solving skills” (p. 12)

Suicide prevention

- “Decrease deaths by suicide
- “Decrease suicide attempts
- “Decrease injuries from suicide attempts
- “Decrease suicidal ideation” (p. 12)

These goals are attainable, measurable, and have clear connections to mentally healthier campuses. All but one of these goals indicates success through a “decrease.” While the greater document from which these goals are pulled contains well-researched recommendations, the goals themselves, except one, do not help inform IHE action on what they should be working to add or increase to improve campus mental health.

The review of the literature discussed above supports Dousy and Keeling’s (2014) claim, “Mental and behavioral health is a critical component of well-being for all

students, and having a campus culture and learning environment that supports healthy minds is a core need deeply centered in the mission of every institution of higher education” (p. 3). While most IHE’s support working towards mentally healthier campuses, the literature still shows consistent, if not increasing, problems with mental health within college student populations.

Because of the complex nature of stigma, IHE’s may need to examine all levels of their community as well as the systems that bind them together. Researchers, practitioners, policy makers, and advocates have a range of suggestions for improving campus mental health: increasing resources (The Jed Foundation Campus MHAP and EDC, Inc., 2011), programs for culture change (The Jed Foundation Campus MHAP and EDC, Inc., 2011), policies for culture change (The Jed Foundation Campus MHAP and EDC, Inc., 2011), developing strategies for reaching students who may not seek help through established and traditional structures (The Jed Foundation Campus MHAP and EDC, Inc., 2011), and creating communities of care (Douce & Keeling, 2014).

Campus Practices

Mental health practices at IHE’s have evolved along with the student populations that they serve. Traditional practices, such as stand-alone counseling centers and one-on-one counseling services now exist at the majority of IHE’s. In addition, emerging practices, such as mindfulness training and peer mentoring, continue to grow as each IHE works to find solutions to their campuses’ pressing mental health issues and their resource constraints.

Very little research exists to compare the effectiveness of campus mental health practices. In an evaluative review of studies that explored the effectiveness of specific

practices, Conley, Durlak, and Dickson (2013) reported the studies had few significant results (a range of 22% to 37%). Because of the lack of significant findings, they were unable to compare the effectiveness of individual practices. They did, however, find some common supports for increased effectiveness: supervised skills-practice (5 times more likely to yield positive findings) and classroom settings (likely due to the prolonged exposure and opportunities for supervised practice).

Legal issues. Much of campus mental health practice is dictated by legal standards. Kraft (2011) discussed legal issues that arose in the late 20th century: “access to mental health records, communication with parents or other family members, laws about involuntary hospitalizations after suicide attempts, and standards for dealing with disabled students and students with disturbing behaviors” (p. 480). Kraft (2011) then emphasized even more recent, pressing legal issues, many of which have followed violent incidents, such as those at Virginia Tech and Northern Illinois University.

Emerging practices. Many IHE’s have come to the conclusion that having available counselors is not enough when it comes to the mental health of their students. The ACHA regularly publishes “Guidelines for Hiring Health Promotion Professionals. In 2015, their report explained,

“Qualified health promotion professionals in higher education possess specific competencies that make them best suited to support student success through the practice of prevention – that is, by preventing the development of personal and campus population-level health problems, while enhancing individual, group, and institutional health and safety.” (p. 148)

The ACHA cited in their “Standards of Practice for Health Promotion in Higher Education (2015), “Specific health promotion initiatives aim to expand protective factors and campus strengths, and reduce personal, campus, and community health risk factors” (158). However, practices for accomplishing these goals have not been well researched as to their effectiveness in health promotion.

As discussed earlier in the review, social connection seems to protect against psychiatric symptoms (Mason, Zaharakis, & Benotsch, 2014). However, close connections may also cause quick, widespread distress in the event of trauma, particularly mass trauma (Hughes et al., 2011, p. 410). In such cases, IHE’s may wish to focus on student connections as a target for promoting mentally healthy behaviors to protect students from additional stress and to promote available care options in the community.

In Conley, Durlak, and Dickson’s (2013) evaluative review, mindfulness interventions were 5 times more effective than other supervised skill practice strategies. In addition, cognitive-behavioral interventions (CBT) were more likely to yield positive findings than relaxation or meditation practices. Practices were also more likely to be effective in classroom settings, perhaps because of the longer duration and frequent opportunities for supervised skill practice. However, studies that had follow up analyses showed few lasting effects for any practices. These emergent practices seem to hold promise for improved mental health, but additional research is needed to focus on comparing these strategies as Conley, Durlak, and Dickson (2013) compiled their results from already existing studies on each intervention.

Need for Additional Research

Much research exists in the area of organizational culture change in regards to the

stigma of mental illness in the context of the armed forces (Britt, Wright, & Moore, 2012), which echoes the need for change at multiple levels. There is also ample research examining very specific practices and their effectiveness (defined in a multitude of ways) with college student populations. However, there is very little research comparing practices to determine if some practices are better than others. There is even less research in exploring whether campus mental health practices actually influence campus culture.

Summary of Literature Review

A large percentage of college students will experience mental illness, yet a low percentage of those students will seek help despite the availability of proven, effective treatments on most campuses. Most IHE's provide some level of access to mental health care for their students, but many of these practices were designed by and for previous generations. The increasing diversity of campuses brings additional aspects to experiencing mental illness and differing needs for mental health care.

Campuses can expect that some students will experience mental illness. While risk factors are well known (genetics, traumatic events, stress), the only consistent support found in this review was social connection. Untreated mental illness can affect students personally, academically, professionally, and socially. Again, causes and effects of mental illness vary by individual and may have some differences based in identity.

While IHE's are required to make accommodations for individuals with mental or emotional disabilities, each campus designs its own unique structures and processes. Counseling center staff and students who have used on-campus treatment options seem to agree that available treatment options are effective. As the severity of signs and symptoms increase, the likelihood of a student to seek help seems to increase, but there

are still large numbers of students with severe symptoms who are not seeking help nor receiving any treatment. Counseling center staff list structural and procedural barriers to help-seeking, but the true barriers seem to be psychological: attitudes and perceptions about the normalcy of stress, the severity of symptoms, and the effectiveness of treatment. Additional barriers may exist for some subpopulations. The most consistent support listed is social connection and encouragement.

The stigma of mental illness arises consistently in help-seeking literature. Stigma (or a nearly identical concept) emerged in nearly every study reviewed that examined help-seeking behaviors (Czyz et al., 2013; Downs & Eisenberg, 2012; Lin, 2012; MacKenzie et al., 2014; Sickles, Seacat, & Nabors, 2014; Ting & Hwang, 2009; Zellman, Madden, & Aguinga, 2014). The extent to which stigma exists and affects help-seeking behaviors is debated, but it is consistently, negatively associated with help-seeking behaviors.

Corrigan's (2004) model of stigma provides a framework with which to examine where stigma exists (personal and social realms), how it manifests (cues, stereotypes, prejudice, and discrimination), and strategies for reducing stigma (contact, education, protest). The literature does not offer conclusions about the extent to which stigma exists nor about the extent of its effects, but all studies that discussed stigma agreed that it affects college students and their environments.

Mental health professionals are using traditional structures as well as new initiatives to decrease levels of stigma on campuses with the hopes of increasing help-seeking behaviors. Mental health practices at IHE's have evolved along with the student populations that they serve. While individual practices have been studied, findings of

effectiveness are not comprehensive enough to confidently advise explicit changes to campus mental health practices. In addition, more research is needed to compare the effectiveness of practices, particularly in the areas of help-seeking behaviors and the stigma of mental illness.

CHAPTER THREE: METHODOLOGY

This chapter will outline the research questions and methodology for this study.

This chapter includes sampling methodology, campus mental health practices collection methodology and resources, survey instrument design and testing, framework models for the design of the survey – the socio-ecological model (Bronfenbrenner, 1979; The Jed Foundation Campus MHAP and EDC, Inc.; 2011; McLeroy et al., 1988) and Corrigan's (2004) model of stigma – and the role of the researcher.

Research Questions

The purpose of this study was to explore possible associations between campus mental health practices and the stigma of mental illness. Because stigma is negatively associated with help-seeking behaviors, practices associated with lower levels of stigma may be useful in changing campus attitudes and influencing campus culture in regards to mental illness and healthy behaviors, such as help seeking. Identified practices are ripe for more in-depth quantitative and qualitative study to support institutions of higher education as they work to become safer, healthier, more caring communities. In searching for these associations, this study had four research questions and three sub-questions:

1. What mental health practices are IHE's using to intentionally improve campus mental health?
2. Which practices are associated with higher levels of awareness in Student Affairs professionals?
3. To what extent do Student Affairs professionals engage in campus mental health practices?

4. What campus practices are associated with lower levels of the social stigma of mental illness?
 - a. To what extent are campus mental health practices associated with stigmatizing attitudes of Student Affairs professionals?
 - b. What subpopulations of Student Affairs staff are associated with lower levels of social stigma?
 - c. What institutional characteristics are associated with lower levels of social stigma?

Methodology

As discussed in the literature review, changing the culture of mental health on campuses to foster lower levels of social stigma may be vital to increasing college student help-seeking behaviors. In a study seeking to find predictors of student mental health, Fink (2014) claimed, “Ultimately, mental health on college campuses must be a shared responsibility,” and faculty, staff, and administrators can influence “multiple aspects of the college environment... to promote student flourishing” (p. 387). The study described here explored the influence of Student Affairs because they hold potential for continuous, direct interactions and relationships with students and often have abilities to influence decision making about campus policies, procedures, and practices, all of which can influence campus culture. Any significant associations between any campus mental health practices and levels of social stigma within this population demonstrates potential for even greater understanding in applying these methods to other campus populations and in examining specific practices more in depth.

This study included two stages: 1) a compilation of traditional and emerging campus mental health practices (RQ1), and 2) a large-scale, national survey of Student Affairs staff (RQ2-RQ4).

Mental Health Models

The survey instrument incorporates three models from the literature: a socio-ecological model (Bronfenbrenner, 1979; The Jed Foundation Campus MHAP and EDC, Inc., 2011; McLeroy et al., 1988) and Corrigan's (2004) model of stigma. The survey utilizes the socio-ecological model to categorize mental health practices and Corrigan's (2004) model of stigma as a basis for conceptualizing a measurement of social stigma. The analysis will include these 2 models and an additional model – a public health preventative model (McKenzie, Neiger, & Thackeray, 2012; Pickett & Hanlon, 1990; United States Department of Health and Human Services) – to explore their potential for understanding practices associated with lower levels of stigma. All 3 models are discussed in more depth in the previous chapter.

The socio-ecological model, based on the work of Bronfenbrenner (1979) is often used within the literature on college mental health (Guidelines for Hiring Health Promotion Professionals in Higher Education, 2015; The Jed Foundation Campus MHAP and EDC, Inc., 2011; Standards of Practice for Health Promotion in Higher Education, 2015) and generally includes five systems: individual, interpersonal, organizational, community, and public policy. This study divided the systems further into intra-individual, individual, inter-individual, intragroup, intergroup, institutional (organizational), and community. The level of public policy was excluded due to the scope of the study and its focus on higher education communities. The socio-ecological

system was used to categorize practices that target these systems (self-care, individuals, relationships, group dynamics, group collaborations, large-scale initiatives within an institution, and large-scale initiatives between institutions) within the larger systems.

Much of the mental health literature regarding stigma refers to Corrigan's (2004) model of stigma (Ascherman, Vogel & Wade, 2009; Britt, Wright, & Moore, 2012; Cummings, Lucas, & Druss, 2013; Downs & Eisenberg, 2012; Kassam et al., 2012; Mestdagh & Hansen, 2014; Quinn et al., 2014). Corrigan's (2004) model of stigma includes three components: stereotypes, prejudice, and discrimination. Stereotypes, prejudice, and discrimination compose the concept of stigma for measurement in the survey. See Figure 1 for a visual representation of the model.

Description of the Study

This study included two stages, each outlined below. Stage one yielded the campus mental health practices surveyed in stage two.

Stage one. Stage one addressed the first research question: 1) what mental health practices are campuses using to intentionally improve campus mental health? Each campus provides mental health support in unique ways because there are no specific legal nor accreditation requirements for campus mental health practices. While there are some best practices lists, there is no available catalog of all campus mental health practices. Due to the lack of a comprehensive list, stage one was a mining of practices from campus mental health practitioner journals and conference programs from the last ten years.

Sources were systematically reviewed for a ten year period (2006-2015) or any portion thereof that they were available. The final list included practices in the titles of articles and presentations that specifically mentioned mental health, mental illness, a

specific mental illness (e.g. depression, anxiety), stress, coping behaviors, brain chemistry, psychological distress, suicide, suicide ideation, suicidal thoughts, self-injury, self-harm, counseling, therapy, or closely related topics.

While there are proven links and overlap between mental health and the following topics, they were excluded due to the scope of this study: physical health, substance abuse, sleep, eating disorders, sexual health and sexuality, and trauma survivorship. Articles were only included if they made explicit connections to any of the included search topics (e.g., a study of sleep disorders and depression). Each of the excluded topics carries its own body of literature, and, often, its own space for resources at IHE's, sometimes separate from the counseling center. To build on the compiled list of practices, this researcher recommends a mining of practices related to each of the excluded topics to further inform the work of student wellbeing on campuses.

The list of resources reviewed is available in Appendix A and a completed list of practices is listed in Appendix B. The list of practices was used in the creation of the survey instrument described in stage two.

Stage two. The survey was designed and implemented using Qualtrics, an online survey software. It was distributed via a web link through direct contacts, listservs, and discussion boards. The survey for this stage was developed using 1) the catalogue of practices from stage one of this study, 2) an operationalization of Corrigan's (2004) construct of stigma, 3) roles, status, and areas of Student Affairs based on NASPA's The Placement Exchange (2015), and 4) the Carnegie Classifications of Institutions of Higher Education (Carnegie, n.d.). Construction of the survey was based on survey research methods resources (Dillman, Smyth, & Christian, 2009) and instruments used in related

studies (Anderson et al., 2015; Britt, Wright, & Moore, 2012; Kassam et al., 2012; Lin, 2012; Ploskonka & Servaty-Seib, 2015; Schindler & Kientz, 2013; Vogel, Wade, & Ascherman, 2009; Walker III & Peterson, 2012; Zellmann, Madden, & Aguiniga, 2014).

Section one: Campus mental health practices (Q1-4). The first section of the survey examined the extent to which Student Affairs professionals are a) aware of, b) have referred students to, and c) have engaged in campus mental health practices. Practices were listed in 5 different groupings: intra-individual (Q1), individual (Q2), inter-individual (Q3), intragroup and intergroup (Q4), and institutional and community (Q5). Practices and statements were grouped using Gestalt grouping principles for greater visual differentiation between statements (Dillman, Smyth, & Christian, 2009, p. 92). Transitional statements introduced each grouping (e.g. “Individual practices target the individual to improve their own mental health and/or to seek help.”) and each section will provide space for an “other” listing to allow for additional practices to emerge from the respondents.

Section two: Stigma related to students with mental illness (Q5-7). This section of the survey included a scale of measurement resulting in an ordinal scale of stigma related to students with mental illness based on Corrigan’s (2004) model (Anderson, Sweeney, & Williams, 2009). This section of the survey was comprised of a series of statements related to stereotypes of students with mental illness (Q5, 7 statements), prejudicial attitudes of students with mental illness (Q6, 7 statements), and discriminatory attitudes about students with mental illness (Q7, 7 statements). These 3 questions provide a total of 21 statements with response options on a 5-point Likert scale (strongly agree, agree, neither agree nor disagree, disagree, strongly disagree) and a “not sure /

prefer not to answer” option. When combined, these statements will yield personal stigma scores between 21 and 105.

Section three: Staff roles (Q8-10). This section asked respondents about their role(s) on their current campus. The first question in this section (Q8) was an indication of part-time or full-time status, in or outside of Student Affairs, as faculty, staff, administration, graduate assistant, student, or other. (In the second round of data collection, this question became the first question of the survey to improve the pace of the survey.) This study is targeting full-time Student Affairs staff, and this question helped distinguish and confirm targeted roles. Logic was inserted in the survey so that for all respondents who selected a role within Student Affairs, they were then asked the next two questions (Q9 & Q10). The second question of this section (Q9) is an indication of the respondent’s status at their current institution as listed by NASPA’s Placement Exchange (2015) (e.g. Chief Student Affairs Officer, senior level). The last question of this section (Q10) was an indication of the area in which the respondent worked. Respondents could choose “part-time” or “full-time” from a drop-down list compiled from NASPA’s Placement Exchange (2015) (e.g. residential life, recreation). Respondents were asked to respond as “full-time” for any area for which they are directly responsible within their full-time positions. “Other” responses are available for all questions to accommodate individuals who do not have roles in-line with NASPA’s categorizations.

Section four: Institutional information (Q11-17). Respondents were first given the option to identify their current institution for purposes of confirming practices and institutional information. Respondents were assured that their responses were only to be

used in statistical analysis and would be presented in ways that are confidential and anonymous. If respondents did not wish to identify their institution, they were asked questions based on the Carnegie Classifications of Institutions of Higher Education (n.d.) including type of institution, size, religious affiliation, and designation. “Other” options will be offered for institutions that do not fit within the Carnegie Classifications.

Section five: Demographic information (Q18 & 19). Respondents were asked gender (Q18) and race/ethnicity (Q19) to determine whether the sample is diverse and representative of the population. Gender, race, and ethnicity were only analyzed descriptively as they do not relate directly to the research questions.

Social desirability. While the topic of the survey does risk bias through social desirability, survey questions covered a wide range of behaviors to increase variability. In addition, due to media coverage of mass traumas associated with individuals with mental illnesses, the social stigma of mental illness on college campuses likely emerged to some extent, particularly considering the range and diversity of individuals in the sample. For each question, so as respondents “avoid extremeness,” the responses were likely be “agree,” “neither agree nor disagree,” and “disagree,” instead of “strongly agree” or “strongly disagree” (Dillman, Sweeney, & Christian, 2009, p. 164). However, these responses will still yield a range of scores. The assumption that respondents will vocalize a range of stigmatizing attitudes about mental illness is supported by research in other areas, such as the military (Forte & Johnson, 1994).

The order of sections risked some error from section one to section two due to carryover emotions or triggered thoughts, but reversing the order could be perceived as more threatening to respondents (Dillman, Sweeney, & Christian, 2009, p. 161). Simply

identifying practices was a less threatening initial task. To allow respondents to release their thoughts in ways not probed by the survey, all sections provided an “other” response with the option to enter additional information. There was also a place at the end of the survey for additional comments.

Due to the sensitive nature of this topic, all question were optional (Dillman, Sweeney, & Christian, 2009, p. 209). Respondents were ensured anonymity and confidentiality as all data will be in aggregate. Therefore, any specific findings required enough respondents from a sub-group that individuals will be impossible to identify. Potential duplicate responses will be identified by identical responses to institutional name and staff characteristics.

As some elements of this survey could be triggering, the survey provided emergency and general resources for mental health. Because this survey was distributed to a geographically diverse group, information on the survey recommended contacting campus and/or local resources, and, in addition, provided information on established national resources (e.g. the JED Foundation).

Validation of measures. To increase the validity of the survey, the survey was vetted using the following schedule:

a) The survey was analyzed by three experts in the area of survey and research design. During this process, survey items were modified and reordered to improve the response rate and face validity.

b) There were three cognitive interviews where peers who identify as Student Affairs professionals talked through their thoughts as they responded to the survey in real time, in order to identify unclear or invalid passages (Dillman, Sweeney, & Christian,

2009, p. 221). During this process, survey items were modified to improve face validity. For example, the section that measures levels of stigma was edited when test subjects' initial responses did not match the intention of the survey item.

c) Two pilot surveys were conducted. The initial pilot was sent to five peers, and results were examined to increase reliability and validity. The second pilot was sent to ten peers.

d) Once a sufficient amount of data was available, the survey was analyzed using factor analysis and Cronbach's alpha. These methods explored the reliability and validity of the scale used to measure social stigma.

Factor analysis determined the extent to which the items were inter-related, grouped the items into factors, and showed the extent to which each factor influenced the variance in results. These results are described in detail in the following chapter.

Cronbach's alpha is an indicator of internal consistency (UCLA: Statistical Consulting Group, n.d.). This analysis, done via the analytic software SPSS, yielded a coefficient of reliability. Cumulatively, the items in Q5, Q6, and Q7, together producing a scale measurement of social stigma, should yield a coefficient greater than 0.7, which would demonstrate low variance between items. To be considered a unidimensional measure, Q5, Q6, and Q7 should yield higher coefficients to demonstrate (internal consistency if they are reliably measuring stereotyping, prejudice, and discrimination independently.

Sample

Five samples were used. The testing of the survey instrument included three sample groups using a total of 18 participants and the final data set included 103

responses using convenience snowball sampling and 63 responses from the second sample, for a total sample of 166 Student Affairs professionals. In the first two stages of testing, the respondents were known to the researcher, and thus the identities of these professionals is confidential but not anonymous. In the final stage of testing and in the final data set, only some of the professionals who were invited participated, and all respondents were ensured anonymity: their identities are not known to the researcher and all findings are presented in aggregate to prevent identification.

Testing. Three samples were used to test the survey instrument. All test participants were ensured confidentiality but not anonymity due to the small sample sizes. No data collected during instrument testing is included in the final data set. Colleagues who participated in instrument testing were excluded from participating in the final survey.

Instrument test 1. The initial test of the survey instrument included three peers who, at the time of the test, are or were recently graduate students in the same academic program as the researcher (Department of Leadership Studies at the University of San Diego with a focus in higher education). Participants were selected based on their willingness to support the researcher and/or this research, a range of professional experiences in Student Affairs, including a range of the number of years of professional experience, areas within Student Affairs, and position levels. In order to ensure confidentiality, no additional information will be provided about this sample.

Instrument test 2. The second test of the survey instrument included five colleagues from four institutions in the Pacific southwest and the Midwest and from three different areas of Student Affairs. Again, participants were selected based on their

willingness to support the researcher and/or this research and their range of professional experiences in Student Affairs. Respondents were informed of the small sample size and were ensured confidentiality but not anonymity. In order to ensure confidentiality, no additional information will be provided about this sample.

Instrument test 3. The last test of the survey instrument included ten colleagues from six to nine institutions around the United States. (Respondents were ensured anonymity and three respondents declined to name their institution.) Again, participants were selected based on their willingness to support the researcher and/or this research and their range of professional experiences in Student Affairs. In order to ensure confidentiality, no additional information will be provided about this sample.

Final data set. The sample included full-time Student Affairs professionals at four-year, degree-granting, public and private, non-profit institutions of higher education in the United States. No such list exists for all Student Affairs professionals, so this study used a large, purposeful, convenience sample and random, targeted sampling of Student Affairs offices underrepresented after the initial collection.

Data set 1. Announcements of the research were sent to the 25 colleagues who participated in or were invited to participate in the testing of the survey and 150 additional colleagues (Appendix B & C). Those who participated in or were invited to participate in the testing of the survey were invited to complete the survey if they had not participated in the testing, asked to forward the announcement and link to any colleagues who might be interested in participating in the research, and asked provide contact information for colleagues they believed would be interested in participating. Those who had not participated in the testing of the survey were informed as to the purpose and

content of the research, invited to participate once the survey opened, and encouraged to forward the coming announcement and link to any colleagues who might be interested in participating. One week later, colleagues were sent another description of the research with a link to the open survey (Appendix D), invited to complete the survey, and encouraged to forward the announcement (with the link) to any colleagues they believed might be interested in participating in the research.

Invitations to participate in the survey were also posted on listservs, discussion boards, and social networking sites within Student Affairs groups and professional organizations. Groups and professional organizations targeted included Association for the Promotion of Campus Activities (APCA), Association of College and University Housing Officers – International (ACUHO-I), Association of College Unions International (ACUI), Association for Student Conduct Administration (ASCA), College Student Educators International (ACPA), the Chronicle of Higher Education, the Cronk of Higher Education, Diverse Issues in Higher Education, Inside Higher Ed, Leaders in Collegiate Recreation (NIRSA), National Association for Campus Activities (NACA), the Student Affairs Collective, StudentAffairs.com, Student Affairs Professionals in Higher Education (NASPA) (including regional announcements to Region I), and Women in Student Affairs (WISA).

This method of collection initially yielded 101 complete responses and 1 additional response was snowballed from the targeted, random sample described below.

Data set 2. After 87 responses were collected using snowball, convenience sampling, responses were reviewed to examine the diversity of Student Affairs offices represented. Underrepresented offices (under ten responses) were then targeted

randomly. A database of colleges and universities was created using the Integrated Postsecondary Education Data System (IPEDS), a comprehensive, online database of colleges, universities, vocational and technical institutions maintained by the National Center for Education Statistics (National Center for Education Statistics, n.d.). The sample frame contained IHE's that IPEDS identified as 4-year, private or public, non-profit institutions that granted at least bachelor's degrees.

For each underrepresented office, the researcher randomly selected ten institutions to contact directly with invitations to participate in the research. Because some offices are more common than others, ten institutional websites were searched for staff contact information for a specific office. If the institution's website indicated the presence of that office but did not provide any contact information, a new institution was randomly drawn. If the institution's website indicated that office did not exist at that institution, no new institution was drawn.

E-mail invitations to the survey were personalized and sent through Qualtrics so response rates could be tracked, separate from the initial data set. Invitees were sent two reminders to complete the survey. After the first reminder and 30 responses had been collected, offices with between one and five responses were mined through targeted random sampling for professionals at five additional institutions in hopes of increasing the diversity and representation of a range of Student Affairs offices.

While this method allowed for targeted reminders to non-respondents, identifying information was separated from responses to ensure anonymity. Data sets were later merged for analysis.

Data set summary. Table 3 summarizes the invitations sent and the responses for each stage of data collection. Response rates are listed for the random, targeted sample but could not be calculated for the snowball, convenience sample as it is not known how many professionals received the survey.

Table 3

Sample invitations and responses

	Number Invited	Number Completed	Response Rate
Instrument Tests			
Talk Through Validation	3	3	100%
Pilot Test #1	5	5	100%
Pilot Test #2	17	10	58.8%
Final Data Set			
Convenience, Snowball Sample	178	103	NA*
Targeted, random sample	994	63	6.3%
Total	1154	163	NA*

Note: *Unable to determine response rate due to the snowball sampling method.

This type of sampling introduced some biases (non-respondent bias, over-sampling of colleagues, including some institutions and areas of Student Affairs, over-sampling of staff engaged in professional organizations, again increasing responses from some areas of Student Affairs). Very few colleagues contacted directly had direct professional experience in the area of mental health; thus, oversampling of colleagues would not likely have a large impact considering the purpose of this study. The offices which did have more representation will be discussed in more depth in Chapter 5. Staff who are already engaged in professional organizations may have been more likely to take the time to participate in a study that may benefit their profession and could provide them

with additional resources and information about the topic of campus mental health (Dillman, Smyth, & Christian, 2009). The second data set, which randomized invitations likely lessened the bias introduced through snowball sampling. In addition, these methods yielded geographical and institutional diversity, which adds validity to the findings of this study.

As the population size of Student Affairs professionals is over 100,000, and there are many sub-groups to analyze for some research questions, the goal was a range of 400 to 600 responses. Data was reviewed periodically during the survey process to explore whether or not there was a sufficient number of responses for analyses of the sub-groups.

Role of the Researcher

The intention of this section is to clarify some of the methodological choices and recruitment strategies. I am a Student Affairs professional with ten years of active experience in the field. Specifically, I have worked within the area of collegiate recreation full-time at one institution and part-time at four additional institutions. I was able to compile the initial list of test subjects and potential respondents through professional contacts in the field of Student Affairs. Because I have been most active within the collegiate recreation professional community, a majority of the initial invitees to the research work within the area of collegiate recreation. While Student Affairs office diversity was improved using random, targeted sampling of underrepresented offices, the largest segment of responses comes from the area of collegiate recreation due to my professional connections in that area.

Both of my parents are retired mental health professionals. Growing up in a household where conversations of mental illness were common, I developed a unique

perspective in working with college students who displayed signs and symptoms of distress or who approached me directly with concerns about mental health. The mental health aspect of working with college students became more salient for me at professional conferences and in conversations with colleagues. Most of my colleagues had stories about working with students experiencing mental illness. Many of my colleagues expressed feeling unprepared in fully understanding these students' experiences, supporting students' mental health, and directing students to the appropriate resources.

My interest in supporting mental health care became extremely important to my work the year I applied to doctoral programs. My campus experienced an unexpected death by suicide of a high-level administrator. Less than a month later, my cousin died by suicide after a long battle with bipolar disorder. While a low percentage of individuals with mental illness will die by suicide, death by suicide is preventable and most mental illnesses have effective treatment options. I focused my interest in campus mental health after reflecting on the availability of treatment options on most campuses and the lack of connection between students, staff, and the help available.

CHAPTER FOUR: ANALYSIS

This chapter will outline the results from the methods described in the previous chapter. Sections will include descriptions of sampling, scale validation, and findings, which includes descriptive statistics, frequencies, mean comparisons, correlations, and regression analyses. Findings will be discussed in the following chapter.

Sampling

The initial sample was collected using a convenience, snowball method. Via e-mail, the researcher invited 150 colleagues who are current Student Affairs professionals to participate in the research and to pass an open web link on to other colleagues. The survey also requested e-mail addresses of potential additional participants who were then sent the link to survey. This method yielded 103 complete responses.

After 87 responses were collected using the above method, 994 additional Student Affairs professionals were invited to participate using a targeted, random sampling method. Using a randomized list of institutions, individuals who worked in Student Affairs offices underrepresented in the initial collection were targeted through institutional website searches. This method yielded 63 additional complete responses.

Between the two sampling methods, 166 complete responses were collected. After reviewing responses, four participants were removed from the second sample as they did not complete the consent to participate, two participants were removed because they indicated they were at an institution other than a four-year public or private, nonprofit institution, and 35 responses were removed because they held a position other than a full-time Student Affairs position and were not in an office commonly organized under Student Affairs. The final data set included 125 participants.

Demographics

Gender and race/ethnicity information was collected from all participants (Table 4 and Table 5). The majority of the respondents identified as both female (67.20%) and white, non-Hispanic (80.00%). In regards to gender, “transgender,” “another gender,” and “prefer not to specify” were included as options but no respondents selected any of these options. See Table 4. In regards to race and ethnicity, all options offered were selected at least once, and only one respondent preferred not to specify. See Table 5.

Table 4

Sample gender responses (n=125)

	Sample 1	Sample 2	Total	Percentage
Male	27	15	41	32.8%
Female	60	24	84	67.2%

Table 5

Sample race / ethnicity responses (n=125)

	Sample 1	Sample 2	Total	Percentage
Asian	7	2	9	7.2%
Black or African American	5	6	11	8.8%
Hispanic or Latino/a	2	5	7	5.6%
Native American or Alaskan Native	0	1	1	0.8%
White (Non-Hispanic)	74	26	100	80.0%
Two or More Races	2	4	6	4.8%
Prefer Not to Respond	0	1	1	0.8%

Participant Positions within Student Affairs

The two combined samples yielded 125 participants who identified as full-time Student Affairs professionals. Of these 125 professionals, 13 also held faculty appointments (one full-time, tenure-track; two full-time, non-tenure-track; ten part-time, non-tenure track). Fourteen identified as current graduate students (seven master's-degree students, six doctoral-degree students, and one student pursuing an unspecified degree). One respondent identified as a graduate assistant in Student Affairs. Thirty-five Student Affairs offices were represented with the most responses from recreation (n=43), residence life / housing (n=28), and administration (n=19). Table 6 shows the distribution of Student Affairs offices. Table 7 indicates the current, primary positional level of the participants at their current institution at the time they took the survey. The length of time participants had been in their current positions had a range of 1 to 37 years with the mean length being 8.32 years and the median being 6 years.

Institutional Information

Most respondents (n=105) identified their current, primary institution. The remaining respondents (n=20) declined to identify their institution but provided requested institutional information. As 21 institutions are unknown, the sample includes respondents from between 69 and 90 institutions and from at least 28 states and Washington, D.C. Each institution had between 1 and 9 respondents with a mean of 1.54 respondents, a median of 1 respondent, and a mode of 1 respondent. See Table 8 for a breakdown of institutional types, religious affiliations, sizes, and designations.

Table 6

Student Affairs office frequencies (n=125)

	Sample 1	Sample 2	Total
Activities	10	4	14
Administrative	16	3	19
Admissions & Enrollment	1	5	6
Advising	1	1	2
Black Student Resources	1	1	2
Career Services	1	1	2
Communications	1	0	1
Commuter & Off-Campus Student Resources	2	0	2
Conduct	2	3	5
Counseling Services	2	0	2
Dean of Students	2	1	3
Development	1	0	1
Disability Services	1	1	2
Facilities	1	2	3
Family Programs	3	0	3
Financial Aid	3	0	3
Graduate Student Resources	1	0	1
Greek Life	2	1	3
Health and Wellness	4	0	4
International Student Resources	1	0	1
Latino/a Student Resources	1	0	1
Leadership Development	4	1	4
LGBTAQAI* Resources	1	0	1
Marketing	2	1	2
Multicultural / Diversity / Inclusion	3	2	5
Native American Student Resources	1	0	1
Orientation / New Student Programming	4	1	5
Recreation	43	0	43
Residence Life / Housing	11	17	28
Service Learning / Volunteerism	1	0	1
Student Union	3	4	7
Sustainability	1	0	1
Transfer Student Resources	1	0	1
Veteran Student Resources	1	0	1
Woman Student Resources	1	0	1

Table 7
Student Affairs staff levels (n=125)

Position	Number of Respondents	Percentage
Chief Student Affairs Officer	2	1.6%
Associate Vice President	1	0.8%
Assistant Vice President	2	1.6%
Senior Level	27	21.6%
Mid-Level	49	39.2%
Entry Level	41	32.8%
Did Not Respond	3	2.4%

Table 8
Institutional information (125)

		Number of Responses	Percentage
Type of Institution	Public	85	68.0%
	Private	40	32.0%
Religious Affiliation	None	97	77.6%
	Assemblies of God	2	1.6%
	Baptist	4	3.2%
	Christian (Non-Denominational)	2	1.6%
	Evangelical Lutheran	1	0.8%
	Jewish	1	0.8%
	Methodist	7	5.6%
	Roman Catholic	15	12.0%
	Other	1	0.8%
Size	Very large (>30,000 students)	30	24.0%
	Large (10,000-29,999 students)	60	48.0%
	Mid-size (3000-9999 students)	22	17.6%
	Small (1000-2999 students)	9	7.2%
	Very small (<1000 students)	4	3.2%
Designation	No designation	105	84.0%
	Historically Black College or University (HBCU)	1	0.8%
	Hispanic Serving Institution (HSI)	16*	12.8%
	Tribal College (TC)	0	0%
	Asian American, Native American, Pacific Islander Serving Institution (AANAPISI)	2*	1.6%
	Islander Serving Institution (AANAPISI)	1	0.8%
	Unsure		

Note: * One response identified the institution as both an HSI and AANAPSI.

Scale Validation

Prior to further analysis, the Student Affairs Professional Social Stigma Scale (SAPSSS) was checked for reliability and validity using factor analysis and Cronbach's alpha. The original scale included 21 items – 7 each pertaining to stereotyping, prejudice, and discrimination – and a Likert scale of 1 to 5. This yielded a score between 21 and 105.

Factor Analysis

Factor analysis is a statistical “data reduction” technique in which a large set of variables is reduced into smaller sets of components or “factors.” This type of analysis is common in the development of scales (Pallant, 2013, p. 188). The SAPSSS was designed with the intent of 7 statements for each of 3 factors: stereotyping, prejudice, and discrimination. The factor analysis statistically determines relationships between the scores of all statements and described the variance that the statements explained to determine the actual number of factors within the scale.

SPSS was used to conduct the factor analysis. The scale scored a 0.766 on the Kaiser-Meyer-Olkin Measure of Sampling, which recommends a score above 0.6 (Pallant, 2013). In addition, Barlett's Test of Sphericity yielded a significance of 0.000, which implies that the items in the data set are correlated appropriately for factor analysis. The results included 6 components Eigenvalues above 1 and explained 63.23% of the variance. These components did not align with the original model of stereotyping, prejudice, and discrimination, but all contributed to the scale itself. Upon further exploration, only one item (“Faculty and staff should provide special accommodations in challenging learning environments for students with mental illness.”) did not contribute

significantly to the prediction of variance. That item, which belonged to the discrimination group, was removed.

When the scale was tested again, there were 5 components with Eigenvalues above 1, and they predicted 60.14% of the variance. The Kaiser-Meyer-Olkin Measure of Sampling increased to 0.766 and Barlett's Test of Sphericity remained at a significance of 0.000. The result was a 20-item scale with a possible score range of 20 to 100.

Cronbach's Alpha

SPSS was used to determine the scale's reliability using Cronbach's alpha, which, for reliability, should pass the threshold of 0.7 (Pallant, 2013). The 21-item scale yielded a Cronbach's alpha of 0.834 while the 20-item scale yielded a Cronbach's alpha of 0.842. After testing the scale using factor analysis and Cronbach's alpha, the researcher proceeded with the 20-item scale for the remaining statistical analyses.

Descriptive Statistics

As the Student Affairs Professionals Social Stigma Scale (SAPSSS) was created for this study, the responses collected will be the only basis for the measure of the scale. This section will explore the normality of the scale and the descriptive statistics from the 125 responses collected.

The minimum possible score was 20 and the maximum possible score was 100, providing a range of 80 for possible scores. In this sample, the minimum score was 26 and the maximum score was 72, which provides a range of 46. The mean score was 50.54 with an upper bound of 52.17 and a lower bound of 48.92 using a 95% confidence interval and a standard deviation of 9.16. The median was 51 and the mode was 52.

Normality of the scale is important for later analysis methods. The Kolmogorov-Smirnov and Shapiro-Wilk tests of normality yielded significance levels of 0.20 and 0.60 respectively. As neither test demonstrated significant results, the scale does not violate the assumption of normality.

Results

This section describes the results of participant responses regarding awareness of, referral to, and engagement in individual practices and groups of practices; respondents' indications of contact with individuals with mental illnesses; and the stigma scale. The descriptive statistics of these variables will frame the later analyses that explore relationships between variables. All findings presented in this chapter will be explored in greater depth in the discussion section found in Chapter 5.

Practice Frequencies

This section will first describe the descriptive statistics as they pertain to the awareness of, referral to, and engagement in individual mental health practices. Then, practices will be grouped according to the socio-ecological model, the public health prevention model, and Corrigan's (2004) model of stigma and the number of practices within each group Student Affairs professionals selected in each category.

Individual practices. An important outcome of this analysis is a display of the practices with which Student Affairs professionals are the most familiar. Table 9 presents the practices of which the respondents reported being aware, to which they referred students, and in which they engaged. Due to the large number of practices (n=73) included in the survey, the top 3 practices in each category (awareness, referral, engagement) and practices that in later analyses showed significant relationships with

stigma are included in Table 9. They are listed in the order that the most respondents reported engaging in the practice as this item became the most important in later analyses. A complete list of practices and their levels of awareness, referral, and engagement is available in Appendix K. The three practices of which respondents were most aware were one-on-one counseling through the counseling center (99.2%), the on-campus counseling center (96.8%), and collaboration between counseling and Student Affairs (88.8%). The three practices to which the most respondents indicated they referred students were one-on-one counseling through the counseling center (75.2%), the on-campus counseling center (69.9%), and anti-stress / de-stress programs, events or campaigns (48.0%). The three practices in which the most respondents indicated they personally engaged were active shooter training (49.6%), collaboration between counseling and Student Affairs (43.2%), and anti-stress / de-stress events, programs, or campaigns (33.6%).

Respondents were asked to write in additional practices of which they were aware, to which they had referred students and in which they had engaged at their current institutions. All responses provided fit existing categories; were practices / events / programs / campaigns specific to one institution; or were outside the scope of this study (e.g. wellness practices that addressed broader campus health).

Groups of practices. Practices were grouped using three models: the socio-ecological model (intra-individual, individual, inter-individual, intra-group, intergroup, institutional, community), the preventative public health model (primary, secondary, tertiary), and Corrigan's model of stigma (contact, education, protest). The table below (Table 9) describes the number of practices within each group respondents indicated in

terms of awareness, referral, and engagement. The three groups of practices of which Student Affairs professionals were most aware were secondary practices ($\bar{x} = 22.46$), education practices ($\bar{x} = 15.39$), and primary practices ($\bar{x} = 13.94$). The three groups of practices to which Student Affairs professionals had most referred students were secondary practices ($\bar{x} = 9.27$), education practices ($\bar{x} = 5.85$), and individual practices ($\bar{x} = 5.11$). The three groups of practices in which Student Affairs professionals had most engaged were secondary practices ($\bar{x} = 4.08$), primary practices ($\bar{x} = 3.75$), and education practices ($\bar{x} = 3.60$).

Contact with Individuals with Mental Illness

Respondents were asked if, to the best of their knowledge, a family member, close friend, or student with whom they had worked closely had been diagnosed with any of 13 mental illnesses. Respondents were instructed only to select “unsure” if they had noticed signs and symptoms of a particular illness but were unsure if they individual had been diagnosed.

Nearly all of the participants indicated they knew at least one person with at least one of the 13 diagnoses listed. Only two respondents indicated they did not know anyone with any of the diagnoses listed. Respondents ranged from having no contact with any individuals with any of the diagnoses listed to having contact with at least one individual with all 12 of the diagnoses listed. The number of diagnoses indicated yielded a mean of 6.68, a median of 7, and a mode of 9.

Table 9

Fifteen practices in which Student Affairs professionals most engaged (n=125)

	Awareness	Referral	Engagement
Active shooter training	80.0%	32.0%	49.6%
Collaboration between counseling and Student Affairs offices	88.8%	35.2%	43.2%
Anti-stress / de-stress events, programs, or campaigns	86.4%	48.0%	33.6%
Inter-departmental procedures to support students through difficult life events	64.0%	30.4%	29.6%
Protocols to share information with various stakeholders about students at-risk for suicide	68.0%	21.6%	28.0%
Suicide prevention training	56.0%	18.4%	21.6%
On-campus counseling center	96.8%	69.6%	19.2%
Campus-wide suicide prevention program	41.6%	16.8%	18.4%
Counselor outreach to faculty and staff	55.2%	14.4%	14.4%
One-on-one counseling through the counseling center	99.2%	75.2%	12.8%
Collaborative, interdisciplinary systems of mental health	44.8%	17.6%	10.4%
Early intervention suicide prevention program	64.8%	21.6%	9.6%
Gatekeeper training	19.2%	6.4%	8.8%
Stress management training	71.2%	32.8%	6.4%
Mental health screening during health center visits	53.6%	20.0%	4.8%
Web-based suicide risk screening	12.0%	6.4%	3.2%
Peer-to-peer mental health support training	43.2%	12.0%	2.4%
Empathy training	14.4%	5.6%	2.4%
Mandated disciplinary mental health counseling	37.6%	12.8%	0.8%

Table 10

Number of practices within each group (n=125)

	<u>Awareness</u>			<u>Referral</u>			<u>Engagement</u>		
	Max	Mean	SD	Max	Mean	SD	Max	Mean	SD
Socio-ecological									
Intra-individual	11	4.05	2.84	9	1.46	2.14	6	0.65	1.252
Individual	26	11.88	5.40	21	5.11	4.65	12	1.84	2.48
Inter-individual	11	3.82	2.62	8	1.15	1.72	6	0.84	1.25
Intra-group	5	1.95	1.32	4	0.58	0.87	3	0.24	0.53
Intergroup	12	6.86	2.92	11	2.55	3.07	10	2.11	2.46
Institutional	11	6.06	2.70	11	2.88	2.65	9	2.12	2.42
Community	2	1.23	0.774	2	0.57	0.733	2	0.34	0.58
Preventative Public Health									
Primary	29	13.94	5.69	21	4.73	4.94	18	3.75	4.17
Secondary	40	22.46	8.21	34	9.27	8.26	23	4.08	4.59
Tertiary	20	10.18	4.51	13	2.85	3.14	11	2.5	2.78
Corrigan (2004)									
Contact	16	8.14	3.28	10	2.21	2.40	12	2.82	2.75
Education	32	15.39	7.46	26	5.85	6.17	18	3.60	4.23
Protest	12	4.27	2.86	9	1.64	2.19	7	1.22	1.87

Note: All minimums were 0.

Table 11

Frequency of contact with individuals with mental illness (n=125)

	Yes	Unsure	No	Did not respond
Anxiety disorder	106 (84.9%)	9 (7.1%)	10 (7.9%)	0
Minor depression	113 (90.5%)	3 (2.4%)	9 (7.1%)	0
Major depression	95 (76.0%)	8 (7.2%)	21 (16.8%)	1
Bipolar disorder	79 (62.7%)	12 (11.1%)	34 (27.0%)	0
Schizophrenia or another psychotic disorder	32 (26.6%)	23 (18.6%)	68 (54.8%)	2
Obsessive-compulsive disorder	64 (51.6%)	13 (11.1%)	48 (38.1%)	0
Trauma-related disorder (e.g. PTSD)	82 (66.4%)	13 (10.4%)	29 (23.2%)	1
Dissociative disorder	12 (10.5%)	41 (33.1%)	70 (56.5%)	2
Somatic disorder	8 (7.2%)	48 (38.4%)	68 (54.4%)	1
Eating or feeding disorder	93 (75.2%)	7 (5.6%)	24 (19.2%)	1
Substance use disorder	99 (79.4%)	6 (4.8%)	20 (15.9%)	0
Personality disorder	49 (38.9%)	25 (20.6%)	51 (40.5%)	0
Other illness or disorder	3 (2.7%)	5 (4.5%)	6 (5.4%)	112

Correlations & Comparing Means

Multiple individual practices and groups of practices demonstrated significant differences in the SAPSSS scores between professionals who were aware of, referred to, or engaged in practices and those who had not.

T-tests were used to statistically determine the difference between groups. T-tests are a statistical measure of the likelihood that two groups have the same mean. In this section, t-tests were used differences between the SAPSSS scores of respondents who answered “yes” to awareness of, referral to, and engagement in practices compared to those who answered “no” or “unsure.”

For practices that showed significant differences between groups of SAPSSS scores, correlations were used to measure the strength of the relationship between awareness of, referral to, or engagement in practices and SAPSSS scores. Correlations are a statistical analysis of the relationship between two items. A perfect relationship will have a correlation of 1.0 while items with no relationship will have a correlation of 0.0.

In this study, significance was defined at the 0.05 level. All findings presented have a significance of at least 0.05. Significance levels of 0.01 and 0.001 are noted within the tables.

Individual Practices

A full list of practices is available in Appendix K. Tables 12, 13, and 14 list only practices with significant statistical relationships with SAPSSS scores. These findings will be discussed in more depth in Chapter 5.

Table 12

Awareness: Statistical relationships between individual practices and SAPSSS scores (n=125)

	Yes	No	Correlation	t-test
Gatekeeper training	45.71	51.69	-0.26**	-2.96**
Web-based suicide risk screening	44.27	51.40	-0.25**	-2.91**
Empathy training	55.17	49.77	0.21*	2.35*
Stress management training	51.58	47.97	0.18*	2.02*

Note: *p < 0.05, two-tailed; **p < 0.01

Groups of Practices

Correlations were also performed between the number of practices within each grouping of which Student Affairs professionals were aware, to which they had referred students, and in which they had engaged. Only three significant correlations were found after running all groups from all three models. The number of inter-individual practices (practices that target relationships between individuals) in which Student Affairs

professionals engaged had a negative relationship of -0.27 (significance = 0.002) with the SAPSSS score. The number of group practices (practices that target either groups themselves or relationships between groups) in which Student Affairs professionals engaged had a negative relationship of -0.20 (significance = 0.027) with the SAPSSS score. Within the group category, intra-group practices (practices targeting relationships within a specific group) did not show a significant correlation with SAPSSS scores, but intergroup practices (practices that target relationships between groups) and SAPSSS scores had a negative relationship of -0.20 and a significance of 0.029.

Table 13

Referral: Statistical relationships between individual practices and SAPSSS scores (n=125)

	Yes	No	Correlation	t-test
Web-based suicide risk screening	41.25	51.18	-0.27**	-3.06**
Gatekeeper Training	41.38	51.17	-0.26**	-3.02**
Stress management training	47.88	51.85	-0.20*	-2.27*
Anti-stress / destress programs or campaigns	48.65	52.29	-0.20*	-2.25*
Mandated disciplinary mental health counseling	46.06	51.20	-0.19*	-2.12*
Early intervention suicide prevention program	47.30	51.44	-0.19*	-2.10*
Collaborative, interdisciplinary systems of mental health care	46.91	51.32	-0.18*	-2.07*
Mental health screening during health center visits	47.32	51.35	-0.18*	-1.99*
Counselor outreach to faculty and staff	46.61	51.21	-0.18*	-1.99*

Note: *p < 0.05, two-tailed; **p < 0.01

Staff Information

Analysis of staff information in relation to SAPSSS scores was limited due to the low sample size and diversity of respondents. Staffing levels were defined by the NASPA Placement Exchange (The Placement Exchange, 2015). Most staff indicated they were currently employed at the entry level (coordinator, manager), mid-level (assistant director, associate director), and senior level (director). While Chief Student Affairs Officers (vice president), associate vice presidents, and assistant vice presidents

are included in the table below, their numbers were so few that it was not possible to draw conclusions about the group with any significance. The only level with a significant correlation with SAPSSS was the entry level, which had a negative relationship of -0.148 with a 0.05 level of significance.

Table 14

Engagement: Statistical relationships between individual practices and SAPSSS scores (n=125)

	Yes	No	Correlation	t-test
Gatekeeper training	42.09	51.36	-0.29***	-3.33***
Counselor outreach to faculty and staff	45.61	51.37	-0.22**	-2.52**
Protocols to share information with various stakeholders about students at-risk for suicide	47.51	51.72	-0.21*	-2.34*
Peer-to-peer mental health support training	38.67	50.84	-0.20*	-2.31*
Inter-departmental procedures to support students through difficult life events	47.68	51.75	-0.20*	-2.30*
Suicide prevention training	47.37	51.42	-0.18*	-2.06*
Empathy training	61.00	50.29	0.18*	2.03*
Campus-wide suicide prevention program	47.13	51.31	-0.18*	-2.00*

Note: *p < 0.05, two-tailed; **p < 0.01; ***p < 0.001

Table 15

Staffing level and SAPSSS scores

	Mean	N	SD
Chief Student Affairs Officer	42.00	2	9.90
Associate Vice President	43.00	1	
Assistant Vice President	52.00	2	4.24
Senior Level	50.74	27	9.07
Mid-Level	52.12	49	8.31
Entry Level	48.58	40	9.47

Most offices were not well represented enough to demonstrate any significant conclusions about SAPSSS scores. Means for positions in Student Affairs

administration, recreation, and residential life / housing were 50.42 (n=19), 52.07 (n=43), and 47.79 (n=28). There were statistically significant differences between the means of these groups.

There was no statistical relationship between the length of time during which respondents were employed at their current institution and their SAPSSS score. Because there was no relationship, no other analyses were performed using length of time of employment.

Institutional Information

Institution type, size, religious affiliation, and designation were examined in relationship to SAPSSS scores. Due to the size of the sample and diversity of institutions, not all categories contained enough respondents for significant statistical findings.

There were 86 respondents from public institutions and 39 respondents from private institutions. Their means were 50.67 and 50.26 respectively. There were no statistical differences between these results.

In terms of institution size, the means were 48.33 for very large institutions (>30,000 students), 51.38 for large institutions (10,000-29,999 students), 51.52 for mid-size institutions (3000-9999 students), 50.44 for small institutions (1000-2999 students), and 49.50 for very small institutions (<2999 students). When the means of these groups were compared using ANOVA, the significance was 0.043, suggesting significant, though likely small, differences between the SAPSSS scores of the 5 sub-groups. However, only very large institutions showed a significant correlation with SAPSSS scores.

Due to the diversity of religious affiliations, no significant findings were possible for sub-groups of religiously affiliated institutions (n=27) compared to institutions with no religious affiliation (n=98). The mean for institutions with no affiliation was 50.68 and the mean for religiously affiliated institutions was 50.04. There was no significant difference between the two groups.

Due to the limited number and diversity of designations, no significant findings were possible for sub-groups of institutions carrying designations (n=20). The mean for institutions with at least one designation were 52.45 while the mean for institutions without a designation was 50.18.

Multiple Linear Regression Analyses

When this study was planned, the researcher hoped to receive enough responses to do several multiple linear regression analyses using staff information, institutional information, individual practices, and groupings of practices. However, two staff information variables (staffing level and area of Student Affairs) did not receive enough responses from each area to give a complete picture due to low numbers of respondents in at least three categories. The length of time respondents had been involved with their current institution showed no significant relationship with SAPSSS scores. Institutional variables (type, religious affiliation, designation, and size) were all shown to be insignificant in their relationships to SAPSSS scores. In this section, multiple linear regression analyses will be presented for individual practices and groupings of practices.

Individual Practices

Regressions for individual practices include separate regression analyses for awareness, referral, and engagement as well as all three combined. Only practices with significant correlations were entered into the linear regression analyses on SPSS.

The first regression includes only practices of which Student Affairs professionals were aware that had a significant relationship with SAPSSS scores. All four practices with significant relationships between awareness and SAPSSS scores were included and all four practices had significant effects on the independent variable (SAPSSS scores) in the regression analysis, so they were all maintained. The resulting formula is

$$\text{SAPSSS score} = 48.73 + (-6.71)(\text{web-based suicide risk screening}) + (4.29)(\text{stress management training}) + (5.68)(\text{empathy training}) + (-6.52)(\text{Gatekeeper training}) + e$$

This regression equation yielded an R-squared (R^2) of 0.217 and an adjusted R^2 of 0.191. The R^2 shows the amount of variance (21.7%) of variance in SAPSSS scores that this equation explains while the adjusted R^2 explains the variance (19.1%) while statistically accounting for the sample size.

Table 16

Awareness of individual practices regression analysis (n=125)

	Unstandardized Coefficients	Standard Error
(Constant)	48.73***	1.39
Web-based suicide Screening	-6.71**	2.32
Stress management	4.29**	1.69
Empathy training	5.68*	2.16
Gatekeeper training	-6.52***	1.94

Note: *p < 0.05, two-tailed; **p < 0.01; ***p < 0.001

When adjusted, the regression analysis using practice referrals showed much less effect on the independent variable of SAPSSS score. The R^2 was 0.316 and the adjusted R^2 was 0.085. The analysis began with 9 practices and was narrowed down to 2 practices due to the significance of the effects. The formula is

$$\text{SAPSSS score} = 51.88 + (-9.61)(\text{web-based suicide risk screening}) + (-4.10)(\text{collaborative, interdisciplinary systems of mental health care}) + e$$

Table 17

Referral to individual practices regression analysis (n=125)

	Unstandardized Coefficients	Standard Error
(Constant)	51.88***	0.88***
Web-based suicide Screening	-9.61**	3.21**
Collaborative, interdisciplinary models of mental health care	-4.10**	2.06**

Note: *p < 0.05, two-tailed; **p < 0.01; ***p < 0.001

Eight engagement practices were included in the initial regression analysis, which yielded an R^2 of 0.195 and an adjusted R^2 of 0.140. Once non-significant variables were removed, the resulting regression equation included 2 variables, had an R^2 of 0.361, and had an adjusted R^2 of 0.131. The formula is

$$\text{SAPSSS score} = 51.70 + (-9.61)(\text{Gatekeeper training}) + (-13.04)(\text{peer-to-peer mental health training}) + e$$

Table 18

Engagement in individual practices regression analysis (n=125)

	Unstandardized Coefficient	Standard Error
(Constant)	51.70***	0.82***
Gatekeeper training	-9.61***	2.72***
Peer-to-peer mental health training	-13.04**	5.04**

Note: *p < 0.05, two-tailed; **p < 0.01; ***p < 0.001

Groups of Practices

Analyses in this section were performed using the number of practices in each group of which Student Affairs professionals indicated they were aware and their relationships with SAPSSS scores. As mentioned above, few groups of practices had significant relationships with SAPSSS scores. None of the regression analyses in this section were viable.

Using the preventative public health model, no significant regression equations were found to predict SAPSSS scores. While some variables neared significance, the largest R^2 was 0.066 and the largest adjusted R^2 was 0.012. Thus, these regression equations would not be very useful in predicting SAPSSS scores.

The socio-ecological model included more variables, and several combinations were analyzed. Referral to intra-individual practices and referral to individual practices together produced a R^2 of 0.054 and an adjusted R^2 of 0.038, but these variables are significantly correlated, which violates one of the assumptions of regression analysis: multicollinearity. When independent variables are correlated, the effects diminish the ability of the regression formula to predict the dependent variable. One combination of variables (engagement in all levels of practices) resulted in a R^2 of 0.106 and an adjusted R^2 of 0.053, but only inter-individual practices remained significant, even with a stepwise regression analysis. No combination of variables found equaled the relationship that engagement in inter-individual practices demonstrated on its own.

Using Corrigan's (2004) model of stigma, engagement in educational practices had a significant (0.047) correlation (-0.15) with SAPSSS scores but no other groups

within the model significantly predicted SAPSSS scores. Therefore, no regression analysis was found using Corrigan's (2004) model of stigma and SAPSSS scores.

Summary of Findings

For individual practices, t-tests showed significant differences in SAPSSS scores between those who responded "yes" and those who responded "no" for awareness of, referral to, and/or engagement in 16 practices. These 16 practices also demonstrated correlations within 0.05 or lower significance levels ranging from absolute values of 0.18 to 0.29. There were four practices in which awareness was significantly correlated with SAPSSS scores, nine practices in which referral was significantly correlated with SAPSSS scores, and eight practices in which engagement was significantly correlated with SAPSSS scores. Half of the practices where awareness was correlated with SAPSSS scores had positive correlations. All of the practices where referral was correlated with SAPSSS scores had negative correlations. Only one of the eight practices where engagement was correlated with SAPSSS scores had a positive correlation while the other seven were negative correlations.

The practices of which Student Affairs professionals are most aware, to which they most refer students, and in which they most engage do not match the practices that have significant relationships with lower levels of stigma. This discrepancy will be discussed in the following chapter.

Analysis of the number of practices within groups of which Student Affairs professionals were aware, to which they referred students, and in which they engaged showed few significant results. The only groups with significant relationships with

SAPSSS scores were inter-individual practices, intra-group practices, and all group practices.

Regression analyses using individual practices as variables were useful in describing some of the variance in SAPSSS scores. A regression analysis focused on awareness of some practices yielded a R^2 of 0.217 and an adjusted R^2 of 0.191, referral of some practices yielded a R^2 of 0.316 and an adjusted R^2 of 0.085, and engagement yield a R^2 of 0.195 and an adjusted R^2 of 0.140. These R^2 scores demonstrate explanation of the variance in SAPSSS scores. However, as the sample size was small, the adjusted R^2 allow for less explanation of the variance. The strongest predictions were for awareness of practices (19.1%) followed by engagement in practices (14.0%). When adjusted, referral to practices predicted very little of the variance (8.5%).

Regression analyses were not effective analysis methods in describing the relationship between groups of practices and SAPSSS scores. In equations where all variables were significant, the variables were significantly correlated with each other, thus violating one of the assumptions of regression analysis and negating the usefulness of the equation. Individual practices were much better predictors of SAPSSS scores.

While few of the hypotheses stated in Chapter 3 were supported and some of the analysis methods yielded few significant results, there were several notable findings from this study. A discussion of these findings as well as a discussion of the implications and limitations of this study will be presented in the following chapter.

CHAPTER FIVE: DISCUSSION

This chapter will follow the research questions to explore the hypotheses stated in Chapter 3 and the findings in the context of the literature. Sections will include discussions of the list of campus mental health practices; Student Affairs' professionals' awareness of, referral to, and engagement in mental health practices on campuses; and the findings of relationships between social stigma and practices as well as staff and institutional characteristics. Lastly, this chapter will discuss the implications of the findings and the limitations of this study.

Campus Mental Health Practices

The first research question in this study ("What mental health practices are campuses using to intentionally improve campus mental health?") was answered through a systematic review of campus mental health journals and conference programs. This method yielded a comprehensive, but not exhaustive, list of 73 practices. These practices comprised the list provided in the survey instrument. Eighteen additional practices were listed by the respondents under "other" options for a total of 91 practices. A complete list of practices along with their frequencies, t-tests, and correlations are listed in Appendix K.

The diversity of these practices support the earlier claims that due to the lack of campus standards and regulations for mental health care, institutions of higher education (IHE's) operate in an isolation, creating and supporting mental health care options that they find to be the best fit for their populations, with or without the support of substantial evidence of effectiveness. While fitting the right type of mental health care to each institution is important, the lack of consistency and extreme diversity demonstrates a

need for examination into the effectiveness of campus mental health practices at a deeper level.

Student Affairs Professionals' Awareness of, Referral to, and Engagement in Campus Mental Health Practices and Relationships with Social Stigma

Frequencies of awareness, referral, and engagement were collected and analyzed with the intent to answer research questions 2 (“Which practices are associated with higher levels of awareness in Student Affairs staff?”) and 3 (“To what extent do Student Affairs staff engage in campus mental health practices?”). This section also intends to answer research question 4 (“What campus practices are associated with lower levels of the social stigma of mental illness?”) through discussion of relationships between awareness of, referral to, and engagement in practices and groups of practices and social stigma as measured by SAPSSS scores.

Campus mental health practices were examined as individual practices and within groups according to three models: preventative public health model, socio-ecological model, and Corrigan’s (2004) model of stigma. While awareness of, referral to, and engagement was correlated in both individual practices and groups of practices, there were some major differences for some practices and groups of practices. These differences became more important for practices that had relationships with stigma as measured by the Student Affairs Professionals Social Stigma Scale (SAPSSS). This will be explored in more depth later in this chapter.

A complete list of practices and their levels of awareness, referral, and engagement frequencies as well as t-test results and correlations is included in Appendix

K. This section will focus on a discussion of the most selected practices and practices with significant relationships to stigma.

Awareness

This section will summarize the frequencies in which Student Affairs professionals in the sample indicated they were the most aware and the relationships these variables had with stigma measured via SAPSSS scores. The frequencies described here will answer research question 2: “Which practices are associated with higher levels of awareness in Student Affairs staff?” While very few variables showed significant relationships in this study, those that did helped answer research question 4: “What campus practices are associated with lower levels of the social stigma of mental illness?” This section will explore those relationships, go into greater depth about these practices that emerged as most related to stigma, and will explore the context of these practices within the literature.

Individual practices. In terms of awareness, the ten most selected practices were one-on-one counseling through the counseling center (99.2%), an on-campus counseling center (96.8%), collaboration between counseling and Student Affairs offices (88.8%), academic accommodations or supported education for students with mental health disabilities or severe mental illness (87.2%), anti-stress / de-stress events, programs or campaigns (86.4%), collaboration between counseling and health services (83.2%), active shooter training (80.0%), stress management training (71.2%), drop-in counseling hours (69.0%), and behavioral concerns teams (68.8%). These percentages include only professionals who selected “yes” when asked if they were aware of the practice at their current institution. As this is self-reported, it is possible that the practice exists at some

of the institutions included in this survey but the respondent was not aware, or that the respondent believed the practice to exist but it does not. The “unsure” responses were not included because while this indicated the practice might exist at the institution, if the respondent was unsure of its existence, they would not be referring nor engaging in the practice, and thus, it would be unlikely to influence that professional’s level of social stigma. It is possible a practice could influence stigma on a campus without individuals being aware of its existence, but this complicated relationship would need to be examined by a specifically designed study. The intent of this study is to focus on practices that might be useful in intentionally lowering social stigma on campuses.

Most Student Affairs professionals in this sample had at least some awareness of at least some mental health practices on their campuses, particularly a counseling center and one-on-one counseling. This is a much higher percentage than Gallagher’s (2013) findings in surveying counseling center directors who reported that only 64.4% of institutions offered psychiatric services on campuses. While this survey did not ask about psychiatric services specifically, close to 100% of respondents indicated they were aware of an on-campus counseling center (96.8%) and one-on-one counseling through the counseling center (99.2%). The discrepancy between these findings and Gallagher’s (2013) findings may be due to the high number of large and very large institutions represented in the sample for this study. Gallagher (2013) noted that large institutions are more likely to have on-campus resources, which may explain the difference in findings. As a high percentage of professionals were aware of several practices, these will be discussed in more depth after the relationships between practices and stigma are explored.

Awareness of practices showed significant relationships with SAPSSS scores in only 4 practices: gatekeeper training, web-based suicide risk screening, empathy training, and stress management training. All four of these practices also showed significant relationships in regards to referral, engagement, or both referral and engagement.

Table 19

Practices for which awareness correlated with SAPSSS scores (n=125)

	Frequency	Correlation
Gatekeeper training	19.2%	-0.26**
Web-based suicide risk screening	12.0%	-0.25**
Empathy training	14.4%	0.21*
Stress management training	71.2%	0.18*

Note: * $p < 0.05$, two-tailed; ** $p < 0.01$, two-tailed

It is unlikely that awareness of any of these practices caused or lowered social stigma for Student Affairs professionals. It is more likely that there is already a difference in the staff who are aware of these practices and those who are not. All four practices also correlated in regards to referral or engagement; gatekeeper training correlated in regards to both referral and engagement. Therefore, all practices will be discussed in more depth in the later sections.

Groups of practices. When practices were grouped, the five groups that were selected with the most frequency for awareness were secondary practices ($\bar{x} = 22.46$), educational practices ($\bar{x} = 15.33$), primary practices ($\bar{x} = 13.94$), individual practices ($\bar{x} = 11.88$), and tertiary practices ($\bar{x} = 10.18$). While many respondents indicated awareness of a large number of practices, no groups of practices showed any significant relationships with SAPSSS scores. Being aware of more practices within any group does not appear to influence social stigma.

Awareness of practices and stigma. There are major differences between the practices of which Student Affairs professionals are most aware and those that are associated with lower levels of stigma. In fact, only two of the ten practices of which Student Affairs professionals were most aware showed significant relationships with stigma. Anti-stress / destress events, programs, or campaigns showed a negative correlation with SAPSSS scores in regards to referral and stress management training showed a positive correlation in regards to awareness and a negative correlation in regards to referral (both to be discussed in more depth in the following section).

While it is unlikely that awareness itself raises or lowers social stigma, there are some practices that show some potential for affecting campus social stigma, and these are not the practices of which professionals are most aware. If professionals are not aware of these practices associated with lower levels of stigma, they cannot refer students to them nor engage in the practices themselves. While awareness alone is not likely to change social stigma for the entire campus, making effective resources available and ensuring the campus community has knowledge of these practices are important steps for healthier campuses. Simply being aware of the counseling center in general and knowing that the center offers counseling is not enough to lower social stigma, which could increase help-seeking behaviors. It is vital to increase awareness of the most effective practices so that referral to and engagement in these practices is possible.

Referral

This section will summarize the frequencies to which Student Affairs professionals in the sample indicated they had referred students and the relationships these variables had with stigma measured via SAPSSS scores. The frequencies described

in this section will partly answer research question 3: “To what extent do Student Affairs staff engage in campus mental health practices?” Many more practices showed relationships with stigma in regards to referral than in regards to awareness, helping to answer research question 4: “What campus practices are associated with lower levels of the social stigma of mental illness?” This section will explore those relationships, go into greater depth about these practices that emerged as most related to stigma, and will explore the context of these practices within the literature.

Individual practices. The ten most selected practices for referral were one-on-one counseling through the counseling center (75.2%), an on-campus counseling center (69.9%), anti-stress / de-stress events, programs or campaigns (48%), academic accommodations or supported education for students with mental health disabilities or severe mental illness (43.2%), drop-in counseling hours (41.6%), collaboration between counseling and Student Affairs offices (35.2%), integration of health and counseling services (34.4%), stress management training (32.8%), active shooter training (32.0%), and community support meetings following tragic events (32.0%). The overlap between the practices of which Student Affairs professionals were most aware and to which they refer students is logical as professionals can only refer students to practices of which they are aware. The order of frequency and percentages of selections has some rationale explained by the literature with some notable exceptions.

This list of referral frequencies is similar to the list of awareness frequencies except for the addition of integration of health and counseling services and community support meetings following tragic events and the subtraction of collaboration between health and counseling services and behavioral concerns teams. It is possible the

distinction between collaboration between and integration of health and counseling services was not entirely clear to the participants. Behavioral concerns teams generally do not involve students due to confidentiality (Higher Education Mental Health Alliance Project, 2013), so the presence of this practice for awareness but not referral is in line with the literature reviewed for this study.

Similar to awareness, it is unlikely that referring a student to any practice causes a change in social stigma. It is more likely that there is already a difference between individuals who refer students to the practices listed below and those who do not. However, there was a significant correlation between the number of practices of which professionals were aware and the number of practices to which professionals referred students. The number of practices of which professionals were aware showed a 0.518 correlation with the number of practices to which they referred students (significance 0.000). This suggests that knowledge of a number of practices allows for a range of practices for referral. While correlation does not imply causation, professionals can only refer students to practices of which they are aware; therefore awareness may influence referral or another factor or factors influence both.

This study did not examine rationale for referrals and thus cannot provide evidence as to the differences between the groups who did and did not refer students to the following practices, but each practice will be discussed in more depth. Because gatekeeper training and counselor outreach to faculty and staff had higher correlations with engagement, they will be discussed in the engagement section so that comparisons can be made.

Web-based suicide screening. As gatekeeper training will be discussed in depth in the engagement section, the practice next most correlated with SAPSSS scores with a correlation of -0.25 for awareness and -0.27 for referral is web-based suicide screening. This level of correlation and significance is notable as only 15.2% of professionals were aware of this practice at their current institution and 8.0% of professionals had referred students to this practice. Web-based suicide screening targets individuals electronically and anonymously. It is a secondary practice, where it is only useful if students already have some signs and symptoms of mental illness.

Table 20

Practices for which referral correlated with SAPSSS scores (n=125)

	Frequency	Correlation
Web-based suicide risk screening	6.4%	-0.27**
Gatekeeper training	19.2%	-0.26**
Stress management training	32.8%	-0.20*
Anti-stress / destress programs or campaigns	48.0%	-0.20*
Mandated disciplinary mental health counseling	17.6%	-0.19*
Early intervention suicide prevention program	21.6%	-0.19*
Collaborative, interdisciplinary mental health counseling	17.6%	-0.18*
Mental health screening during health center visits	20.0%	-0.18*
Counselor outreach to faculty and staff	14.4%	-0.18*

Note: * $p < 0.05$, two-tailed; ** $p < 0.01$, two-tailed

Only one research article was found from the last 10 years on this specific practice. Haas, Koestner, Rosenberg, Moore, Garlow, Sedway, Nicholas, Hendin, Mann, and Nemeroff (2008) explored a web-based suicide screening tool designed to encourage students who displayed risk factors for suicide to seek help. Students at two universities were invited to participate in the web assessment, and respondents were then provided

with a personalized assessment from a counselor. Students were provided counselors' names, contact information, and an invitation to contact the counselor. Students who were deemed at high risk were encouraged to schedule an in-person consultation but were also provided an anonymous, online option for contacting a counselor.

In this study, of the 1162 students who participated, 49.2% were found to be at high risk, 35.2% at moderate risk, and 15.6% at low risk for suicide. Of the students at high and moderate risk, at least 13.6% were currently receiving treatment. As a result of the assessment feedback, Almost one quarter of students engaged in anonymous, online dialogue with a counselor. Of the students designated as high or moderate risk, over one-third eventually saw a counselor in person through this program.

At least some of the students who interacted with counselors anonymously online described a comfort in interacting with a counselor online that they did not feel with an in-person consultation. Students described fears of being discovered in seeing a counselor, prior negative experiences with counseling, possible costs, and concerns about confidentiality, mandated reporting, and consequences of honest admissions of substance use or severity of symptoms. These same students expressed an openness to anonymous, online counseling and were glad to have a forum to ask questions before seeking in-person treatment.

While it is not possible to draw conclusions about causation with the relationship between stigma and web-based suicide screening observed in this study, the relationship is likely present because individuals with lower levels of stigma may be more aware of such an anonymous, secondary practice and may be more comfortable referring students to such a practice. While awareness of and referral to this practice may not lower stigma

directly, the anonymity of this practice may be a protective factor for raising stigma, which can sometimes occur when a student feels exposed. This practice provides a non-threatening outlet for exploration of mental health care and allows for contact with a mental health professional in the comfort of an online setting. This is not a practice in which Student Affairs professionals would likely engage at their institution as it is directed on an individual level towards students. While this practice may not lower levels of stigma on its own, this study supports further exploration of its effectiveness as web-based suicide screening may reach students who are otherwise resistant to other forms of treatment without raising social stigma. This practice may be a good option for an additional campus resource as web-based programs can provide screening at a lower cost and with a wider reach than on-campus mental health professionals. With a web-based screening, campus mental health professionals can then provide treatment options more efficiently according to the severity of the symptoms and the willingness of the student to engage in treatment.

Stress management training. Stress management training had both positive and negative correlations with SAPSSS scores, which was an unexpected result. Stress management training showed a high level of awareness (71.2%) and lower levels of referral (32.8%) and engagement (6.4%). Stress management training had a correlation of 0.18 with 0.045 significance for awareness and -0.20 with 0.022 significance for referral. There was no significant relationship for engagement.

Stress management training was listed in the Substance Abuse and Mental Health Services Administration (SAMHSA) National Registry for Evidence-based Programs and Practices (SAMHSA, n.d.) and was also included in an educational presentation at the

2015 Molloy College Mental Health Conference (Rinaldi, 2015). No empirical research was found regarding this practice in relation to collegiate mental health.

The intent of this practice is to teach students strategies for managing their own stress. As there was no statistical difference for engaging in this practice, the differences for awareness and referral are puzzling. It is not likely that referring students to this practice causes a reduction in stigma. It is much more likely that there is a difference in the professionals who do and do not refer students to this practice or another factor that inspires them to do so.

This study did not explore rationale for referring students. Perhaps respondents who find themselves with high levels of stress were more likely to notice this practice on campus or perhaps such a strategy had been recommended to them previously. If respondents are feeling highly stressed themselves and unready to confront their stress, being aware of and referred to available resources could potentially relate to the stigma they feel towards others with overwhelming levels of stress. Perhaps those who are ready to confront their stress are more willing to refer students to stress reduction practices, which is one possible explanation as to why stigma levels might be lower for those who have referred students to this practice. As this study only used correlation and did not question rationale, any explanation is only speculation.

Anti-stress / de-stress programs or campaigns. Anti-stress / de-stress programs and campaigns had some of the highest levels of awareness (86.4%), referral (48.0%), and engagement (33.6%). This practice was only correlated with SAPSSS scores in regards to referral: -0.20. These types of program generally work to provide stress relief for students, particularly during high stress periods, such as final examinations.

Activities are usually upbeat, relaxing, and temporary (e.g. “puppy therapy” or massage), which could explain the difference in awareness results between anti-stress programs and stress management training.

It is unlikely referring a student to any practice causes a change in stigma. Therefore, it is likely there is a difference between the professionals who refer students to stress reduction programs and those who do not. There was no empirical research found relating these types of programs to student mental health; there was only one educational presentation from a conference (Christianson & Bailey, 2015). Further study regarding the general effectiveness of these types of programs could be beneficial as a large percentage of respondents were aware and had engaged in these programs with no effect on social stigma. These programs may not be helpful in lowering stigma, but if other measures of effectiveness are shown, they could be beneficial to IHE’s.

Mandated disciplinary mental health counseling. Mandated disciplinary mental health counseling generally occurs when a student is reported to have violated the IHE student code of conduct, and in the conduct process, it is determined the student’s mental health is of concern. Those responsible for student conduct may then have the ability to include mental health care within disciplinary procedures, compelling a student to schedule time with a counselor. This can be a difficult disciplinary measure to enforce as mental health professionals must adhere to confidentiality laws, so neither the counselor nor the student can be compelled to report the results nor can a specific result be required as confidentiality protects against the exposure of the content of any counseling sessions.

Mandated disciplinary mental health counseling had an awareness rate of 37.6%, a referral rate of 12.8%, and an engagement rate of 0.8%. It had a correlation of -0.19

with SAPSSS scores in terms of referral. There were no research articles examining this specific practice. It is a secondary or tertiary, individual, contact practice. As this practice holds mental health counseling as a disciplinary measure, it is interesting that there was such a strong, negative correlation with social stigma. However, perhaps professionals who referred students to this practice viewed mental health counseling as a practice of care for the individual rather than disciplinary measures that did not take mental health care into account. As the only significant correlation was present with referral, there is likely a difference between the professionals who did and did not refer students to this practice rather than any causal relationship.

Early intervention suicide prevention program. Early intervention suicide prevention programs provide a system for recognizing and reporting risk factors for suicide so that mental health care can be offered before any suicide attempt. This is a secondary, individual, educational practice. It had frequency rates of 64.8% for awareness, 21.6% for referral, and 9.6% for engagement, and a correlation of -0.19 with SAPSSS scores only for referral.

As this is a secondary practice, it is likely that professionals who referred students to such a program already had some training in caring for students' mental health. They would have had to recognize the signs and symptoms of suicide risk for such a referral to be appropriate.

There was only one research article found regarding this practice. Rivero, Cimini, Bernier, Stanley, Murray, Anderson, and Wright (2014) studied a practice at a large, northeastern institution where residence hall directors who observed risk factors for suicide referred students directly to the counseling center. They found some differences

between students who were identified, referred to the program, and completed the program and those who did not complete the program: increased retention, increased matriculation, and higher grade point average (GPA). The authors suggest early intervention suicide prevention programs may be a better alternative to student medical leaves as this type of program allows the student to remain on campus to receive care, which may increase their likelihood of retention. Perhaps respondents who referred students to this practice had similar feelings about the importance of the connection to students' networks that equated to their lower levels of stigma.

Collaborative, interdisciplinary mental health counseling. The survey instrument carried no definitions, so it is surprising that 17.6% of respondents indicated they had referred a student to this practice. There were no research articles found about this practice, only one educational session titled “The Mentally Ill Student in Distress: Envisioning and Building Collaborative Interdisciplinary Systems of Care” at the 2014 American College Health Association (ACHA) Annual Meeting (Choudhary, Iarovici, Pesetski, & Trost, 2014). There is no definition within the conference program, and the content is not available, but this practice is likely an intentional, interoffice system of practices that exist at all levels (primary, secondary, tertiary, etc.).

As this practice was not well defined, it is likely respondents interpreted the practice as using forms of collaboration, particularly with offices outside the counseling center as 44.8% of Student Affairs professionals indicated they were aware of the practice, 17.6% had referred a student, and 10.4% had engaged in the practice. Only referral showed a correlation, which was -0.18. Similar to some other practices, it is likely that those professionals who consider mental health care to be the work of the

entire campus community both have lower levels of social stigma and are more likely to refer students to practices within and without the counseling center.

Mental health screening during health center visits. Many campus health centers have incorporated the practice of asking questions about mental health as part of any health center visit, much like weighing a patient or taking their temperature and blood pressure. Many mental illnesses also have physical symptoms, and these screenings can be helpful in diagnosing students properly and connecting them to the most appropriate treatment. In addition, because of the stigma of mental illness, students may be more comfortable visiting the health center than the counseling center and addressing their physical symptoms. Students may also visit the health center for a completely unrelated medical issue, but these screenings can help discover untreated symptoms regardless of the reason. If students describe distressed or distressing symptoms medical professionals can connect students to the appropriate treatment options on campus.

There were no research articles found regarding this practice on campuses. The researcher found only one educational presentation from the 2013 ACHA Annual Meeting (Ruiz, 2013).

Over half (53.6%) of respondents were aware of this practice, 20.0% had referred a student to this practice, and 4.8% had engaged in this practice. Mental health screening during health center visits had a significant correlation of -0.18 with SAPSSS scores. Like many of the other practices in this section, this correlation is likely due to individuals with lower levels of stigma referring students to less threatening introductions to mental health care. If a student expressed some mental health concerns but seemed

hesitant to go to the counseling center, a visit to the health center is a much less threatening suggestion.

Groups of practices. The five groups most selected for referral were very similar to those selected for primary practices though respondents had referred students to far fewer practices than they had indicated they were aware. The most selected practices for referral were secondary practices ($\bar{x} = 9.27$ practices selected per respondent for this group), educational practices ($\bar{x} = 5.85$), individual practices ($\bar{x} = 5.11$), primary practices ($\bar{x} = 4.73$), and institutional practices ($\bar{x} = 2.88$). There were no significant relationships between the number of practices within each group to which professionals referred students and SAPSSS scores.

While there were no significant relationships between SAPSSS scores, the referral relationships of individual practices tended to favor secondary practices, which were also the most frequently selected. This is likely because Student Affairs professionals may be most likely to refer students to mental health practices when they notice signs and symptoms of mental illness. This finding stresses the importance of ensuring faculty and staff are knowledgeable about the signs and symptoms of distress as well as the resources available on campus.

Referral to practices and stigma. Few research articles are available about any of the practices that demonstrated significant relationships with social stigma. Most practices present in this section are secondary practices, which is logical as Student Affairs professionals seem most likely to refer students to mental health practices after noticing signs, symptoms, or risk factors of mental illness.

As correlation does not imply causation, the rationale for lower levels of social stigma in relation to these practices can only be speculation. It seems unlikely that the simple act of referring a student to a practice would lower someone's level of social stigma. It seems more likely that professionals who already have lower levels of social stigma are referring students to these practice.

Practices demonstrating relationships with social stigma may be the practices to which individuals with already lower levels of social stigma refer students, they were not the practices most selected for referral. Many of the most selected practices were primary or secondary practices that also overlapped strongly with the practices of which professionals were the most aware. While there does not seem to be any harm in referring students to these practices as there was no significant positive nor negative correlation with SAPSSS scores, professionals were not often referring students to the practices that hold the most promise for reducing stigma, which are described below in the engagement section.

Engagement

This section will summarize the frequencies in which Student Affairs professionals in the sample indicated they had engaged in mental health practices at their current institution and the relationships these variables had with stigma measured via SAPSSS scores. These frequencies help answer research question 3: "To what extent do Student Affairs staff engage in campus mental health practices?" Practices in which professionals engaged showed stronger correlations than both awareness and referral, helping to answer research question 4: "What campus practices are associated with lower levels of the social stigma of mental illness?" This section will explore those

relationships, go into greater depth about these practices that emerged as most related to stigma, and will explore the context of these practices within the literature.

Table 21

Practices for which engagement correlated with SAPSSS scores (n=125)

	Frequency	Correlation
Gatekeeper training	8.8%	-0.29***
Counselor outreach to faculty and staff	14.4%	-0.22*
Protocols to share information with various stakeholders about students at-risk for suicide	28.0%	-0.21*
Peer-to-peer mental health support training	2.4%	-0.20*
Inter-departmental procedures to support students through difficult life events	29.6%	-0.20*
Suicide prevention training	21.6%	-0.18*
Empathy training	2.4%	0.18*
Campus-wide suicide prevention program	18.4%	-0.18*

Note: * $p < 0.05$, two-tailed; *** $p = 0.001$, two-tailed

Individual practices. The ten practices in which Student Affairs professionals most engaged includes active shooter training (49.6%), collaboration between counseling and Student Affairs offices (43.2%), anti-stress / de-stress events, programs, or campaigns (33.6%), inter-departmental procedures to support students through difficult life events (29.6%), protocols to share information with various stakeholders about students at risk for suicide (28.0%), suicide prevention training (21.6%), community support meetings following tragic events (20.8%), campus-wide mental health promotion program (20.8%), behavioral concerns teams (20.0%), and mental health anti-stigma campaign (20.0%). This list differs greatly from the previous lists of awareness and

referral, and, unfortunately, it also differs from the list of practices most associated with lower levels of social stigma.

The number of practices in which professionals engaged showed significant ($p < 0.000$) correlations with both the number of practices of which professionals were aware (0.437) and to which professionals referred students (0.739). It is not possible to state whether awareness nor referral caused engagement nor vice versa. However, as engagement in the following practices showed significant relationships with lower levels of stigma, awareness of these practice may encourage engagement and referral to these practices may encourage others to engage in practices that have the potential to lower levels of social stigma.

Gatekeeper training. The practice with the most significant relationship and largest correlation was Gatekeeper training, which is a secondary, individual, and educational practice. Gatekeeper training had a -0.26 correlation with SAPSSS scores with 0.004 significance when Student Affairs professionals were aware of it, a -0.26 correlation with 0.003 significance when professionals referred students to it, and a -0.29 correlation with 0.001 significance when professionals engaged in it. These results are particularly interesting when considering that only 19.2% of respondents were aware of Gatekeeper training, 6.4% of respondents had referred students to it, and 8.8% of respondents had engaged in it.

Gatekeeper training is a multiple-hour experiential learning course designed for “gatekeepers,” individuals with increased interaction and responsibility for members within a community (Cimini, Rivero, Bernier, Stanley, Murray, Anderson, Wright, & Bapat, 2014; Pasco, Wallack, Sartin, & Dayton, 2012). There are many types of

gatekeeper training, including some that have been developed specifically for working with college students. On campuses, gatekeeper training is most often used with resident advisors. Gatekeeper training works to develop awareness, knowledge, and skills to learn how to appropriately and helpfully interact with students having thoughts of suicide and how to support students in seeking professional help (Cimini et al., 2014; Pasco, Wallack, Sartin, & Dayton, 2012). While no literature was found exploring Gatekeeper training and its relationship to stigma, a few studies did explore the effectiveness of the training defined by crisis response skills.

Pasco et al. (2012) found significant differences before and after gatekeeper training in scores that measured appropriate crisis management responses. They found even larger effects for training that included an experiential component, suggesting that experiential learning increases the intended outcomes for the training. They found similar benefits of training when examining self-efficacy in responding to crises and crisis-related knowledge except in communication outcomes where students described their knowledge and comfort level in talking to students about thoughts of suicide.

Cimini et al. (2014) studied a gatekeeper training program that they claimed was unique in its capacity to tailor the training to the specific “needs, cultures, and concerns of specific academic departments, service units, and staff and student groups within particular college and university campuses” (p. 94). Their study showed significant increases in knowledge and comfort when working with crises involving suicide both in immediate post-test as well as delayed post tests administered 3 months later. They also asked participants about comfort in actually using the skills they had learned. Comfort levels were nonsignificant in the immediate post-test but showed significant increases in

the 3-month follow up. Lastly, participants, which included faculty, staff, and students, expressed satisfaction with the training and described its usefulness in increasing their capacities in their roles on campus.

Morris, Lee, Prieto-Welch, and Taub (2016) assessed the outcomes of training counseling students (Ph.D. and master's level) to facilitate Gatekeeper training sessions. Their sample included only 8 participants, so many of their results, while appearing to show differences in pre- and post-tests, were deemed insignificant statistically. However, there were significant results in the pre- and post-test scores for crisis-related communication skills. While the researchers were unable to make conclusions about the increases in knowledge of the facilitators, they found "training the trainer" sessions may increase the response skills of the facilitators.

While these studies each concentrated on one campus and measured "effectiveness" in slightly different ways, all studies support the usefulness of gatekeeper training on campuses. This current study, which focuses on Student Affairs professionals, also supports the use of gatekeeper training on campuses due to its consistent, negative relationship with social stigma. While the correlation between gatekeeper training (awareness, referral, or engagement) does not imply any causal explanations, this study supports the findings of other studies that gatekeeper training may be a valuable tool in supporting mentally healthy campus communities.

Counselor outreach to faculty and staff. Counselor outreach to faculty and staff is a primary and/or secondary, intergroup, contact practice. This practice had an awareness rate of 55.2%, a referral rate of 14.4%, and an engagement rate of 14.4%.

Referral to counselor outreach to faculty had a correlation of -0.18 for referral and -0.22 for engagement.

No research was found regarding this practice. It was included in the list of practices because 3 separate presentations at professional conferences focused on counselor outreach to faculty and staff as a topic. Outreach aligns with Corrigan's (2004) model of stigma in that it increases contact with mental health professionals and likely includes education regarding the availability and benefits of on-campus treatment options. If Corrigan's (2004) model is correct, increasing contact between faculty and staff and counselors and providing relevant information would reduce stigma.

One issue with this finding is that while 14.4% professionals indicated they had referred a student to this practice, this practice does not lend itself to student referral. It is possible that respondents understood the question to mean they had developed a relationship with staff in the counseling center, to whom they then referred students.

Protocols to share information with various stakeholders about students at-risk for suicide. This is a secondary, intergroup, contact practice. While 68.0% of respondents were aware of this practice and 21.6% had referred a student to this practice, 28.0% of respondents had engaged in this practice, making it the fifth most selected practice for engagement. Correlation was only present with significance for those respondents who had engaged in the practice: -0.21 (significance = 0.020). There were no research studies found exploring this practice. It was included due to 2 separate presentations at conferences related to collegiate mental health.

Determination of causation is not possible with correlation. However, a large number of Student Affairs professionals were aware of, had referred students to, and had

engaged in this practice, and only engagement showed a significant difference in SAPSSS scores between those who engaged in the practice and those who had not. This leads to questions about whether the practice itself lowers stigma, those who are more likely to engage in the practice are more likely to have lower levels of stigma, or perhaps other factors have influenced both.

While protocols for sharing information may be a good practice in lowering levels of stigma, there are other concerns whenever there is the possibility of sharing student information. Many students are concerned about confidentiality in regards to their mental health, but the negative correlation with SAPSSS scores and this practice may signal benefits to sharing student information when done intentionally and with care. Perhaps this is linked to Corrigan's (2004) concept of "contact," where increasing contact with, and therefore humanity of and care for, students with mental illness may reduce stigma. However, while sharing information may be beneficial for staff, the consequences for the student and legal restrictions must also be considered. While this practice may have potential for lowering social stigma, students' privacy and personal stigma must also be considered if this practice is going to be effective in increasing help-seeking behaviors. IHE's must be careful with concerns of ethics, confidentiality, and legality when designing these protocols.

Peer-to-peer mental health support training. Peer-to-peer mental health support training is a secondary, inter-individual, contact practice that teaches students how to recognize signs and symptoms of distress in their communities (friends, roommates, classmates) and how to connect peers to appropriate resources. Essentially, it teaches students how to care for each other's mental health within the campus community. It is

similar to gatekeeper training but targets any peer relationship instead of only individuals who have campus roles that involve responsibility for others.

Less than half (43.2%) of respondents were aware of this practice at their current institutions; 12.0% had referred students to this practice; and 2.4% had engaged in the practice. Although only a very small percentage of professionals indicated they had engaged in this practice, it still demonstrated a significant correlation (-0.18) with social stigma. No additional research was found to support this practice, but due to its similarities with gatekeeper training and strong correlation with social stigma, it likely has similar benefits. If gatekeeper training and peer-to-peer mental health support training are combined, any individual or group at an IHE could be trained in recognizing signs and symptoms of distress and how to respond in an effort to care for other members of the community.

Inter-departmental procedures to support students through difficult life events.

This is another practice involving care for an individual outside of the counseling center. It is a secondary or tertiary (depending on the situation), intergroup, contact practice with high levels of awareness (64.0%), referral (30.4%), and engagement (29.6%) and a correlation of -0.18 with SAPSSS scores.

The only research article found about this practice involved a study of a student assistance program at a small, health-science institution (Veaser & Blakemore, 2006). The authors explain the need for such programs, particularly at smaller schools with limited resources, due to the unpredictable nature of national, local, or personal crises that can significantly impact a student or an entire campus community. Due to a change in on-campus resources and the student insurance program, the institution studied developed

a program modeled after their Employee Assistance Program, which offered resources for a range of needs from child care to legal services to workshops on coping with change. The campus community submitted proposals, and eventually outsourced an organization to design a comprehensive website to accommodate students who were off-campus, needed access to resources outside of traditional office hours, and preferred confidentiality. This program was designed to enhance counseling services and to achieve flexibility for institutions of different sizes and type.

Within the first year of the program, just over 5% of students had used the program (Veaser & Blakemore, 2006, p. 380). While no other measures of effectiveness were offered, the authors speculated the program has been immensely helpful at their institution. They cite their ability to respond proactively to the effects of Hurricane Katrina soon after the program was launched. The institution was able to readily provide the campus community with a list of local resources as well as a description of “normal” responses to crises, how to notice signs of extreme distress, and available resources for helping others in the community.

The frequency with which respondents indicated awareness of such programs on their own campuses is interesting as nearly all respondents indicated their institutions have an on-campus counseling center while Veaser and Blakemore’s study focuses the need for such procedures at smaller institutions that may not have on-campus counseling resources. Again, respondents were not provided a detailed definition of the practice, so they likely interpreted it as any post-crisis procedures.

It is notable that only those professionals who had engaged in this process demonstrated lower levels of social stigma. While no professional would wish a difficult

life event on a student, it is encouraging that almost one-third of professionals have been involved in a process of demonstrating care through the intentional support of a student through a crisis. Perhaps those who engage in the process already felt a level of compassion for the student(s) affected or perhaps involvement in the process caused professionals to focus on students' humanity and situation, putting some mental health concerns in context of the moment as opposed to being the defining identity of a student. Many factors could explain the lower levels of stigma for those who engage in this practice. Regardless, this practice may have many beneficial outcomes and, if it affects social stigma, it likely lowers those levels.

Suicide prevention training. Suicide prevention is similar to both gatekeeper training and peer-to-peer mental health training. The major difference is that the ultimate goal is to prevent suicide while the other trainings usually include suicide prevention as a part of the larger picture of mental health care and responding to signs and symptoms of mental illness. Like gatekeeper training and peer-to-peer mental health training, suicide prevention training is a secondary, inter-individual, educational practice. Over half (56.0%) of respondents were aware of this practice, 18.4% had referred students to this practice, and 21.6% had engaged in this practice. Only engagement showed a significant correlation (-0.18).

In their study of suicide prevention assessment and training, Paladino and Minton (2008) emphasize the importance of individuals with direct contact with students to be able to identify signs and symptoms of distress and respond appropriately to connect students to mental health care. They describe a thorough, intentional suicide prevention tool called BASIC ID and use vignettes to describe its usefulness. No other studies were

found that could describe the effectiveness of this practice in the college campus environment.

Empathy training. Empathy training was the only practice with solely positive significant relationships with SAPSS scores. This was an unexpected result. Empathy training is a primary, intra-individual, educational practice. One notable finding about empathy training is that although it showed a significant correlation with SAPSSS scores, few respondents indicated awareness (14.4%), referral (5.6%), or engagement (2.4%). Despite these low numbers, there were significant correlations of 0.21 for awareness with 0.020 significance and 0.18 for engagement with 0.045 significance.

The purpose of empathy training is to teach participants frameworks and methods for better understanding the feelings and experiences of others. No research was found that directly explored empathy training in relation to mental health. This practice was included because of an educational session at the 2012 NASPA Mental Health conference (Hutchinson & Ross, 2012). If empathy training is successful, participants should have more compassion for and understanding of students with mental illnesses. However, this study found the opposite.

Because the correlation for engagement was lower than the correlation for awareness, it is unlikely that there is a causal relationship between empathy training and stigma. It is more likely that either the Student Affairs professionals who were aware of or engaged in empathy training already had higher levels of stigma or another factor or factors caused higher stigma and awareness or / engagement in empathy training. IHE's that promote empathy training may wish to examine the populations that participate in empathy training or their reasons for doing so. Perhaps some professionals with

stigmatizing attitudes have been directed to such programs or perhaps some offices with higher levels of stigma are more likely to participate in empathy training programs.

If there is a causal relationship, which cannot be determined with this study, it is possible engaging in empathy training could cause participants to consider their own mental health difficulties, which could raise their anxiety and stigma. Another explanation could be that empathizing with someone with mental illness could cause participants to focus on this one aspect (mental illness) of another person's experience, over identifying that person with their illness, which reverses the effects of Corrigan's (2004) concept of contact in that the experience is imagined. Perhaps the participant might feel overwhelmed by what they imagine another person's experience with mental illness.

Empathy training is a new practice on campuses and its effects, including its benefits do not seem to be well established. As the sample size for this study was small, additional research would be helpful if IHE's wish to continue to offer empathy training. Due to the consistent positive relationship with social stigma in this study, if an IHE is seeking to lower social stigma on campus, empathy training would not be a good use of resources.

Campus-wide suicide prevention program. The last practice with a significant correlation (-0.18) with SAPSSS scores was a campus-wide suicide prevention program. This practice had an awareness rate of 41.6%, a referral rate of 16.8%, and an engagement rate of 18.4%. Campus-wide suicide prevention programs are large-scale programs that work to increase awareness of signs and symptoms of suicide risk and to increase knowledge of campus resources and appropriate responses if a member of the

campus community notices signs of distress. These types of large scale programs might be introduced following a death or deaths by suicide that may have greatly affected a campus community in order to prevent future suicide attempts.

While several types of mental health promotion and mental illness response programs and campaigns were listed amongst the practices on the survey, campus-wide suicide prevention programs was the only selection that carried a significant correlation with social stigma. No research was found that examined this practice specifically, so it is difficult to name the cause for this correlation. As engagement was important for correlation and not awareness nor referral, there seems to be a link between those who choose to engage in this practice when it is broadcast to the entire campus community. It could signal a connection to suicide prevention specifically as other types of campus-wide campaigns and programs did not carry a significant relationship. Perhaps professionals who were strongly affected by a student death by suicide or were impacted by others within the community who were strongly affected.

It is also possible that engaging in such practices lowers stigma as campus-wide suicide prevention program engagement is the only practice that fits the description of “protest” within Corrigan’s (2004) model of stigma. In this model, actively engaging in programs that promote education and require visible participation to promote mental health or work against the stigma of mental illness reduces personal stigma, which can be linked to social stigma.

Groups of practices. The five groups most selected for engagement were secondary practices ($\bar{x} = 4.08$), primary practices ($\bar{x} = 3.75$), educational practices ($\bar{x} = 3.6$), tertiary practices ($\bar{x} = 2.9$), and contact practices ($\bar{x} = 2.82$). There is some overlap

between awareness and referral frequencies, but the number of practices within each group is much lower.

Though not listed in the top five most selected groups, there were three groups of practices, all within the socio-ecological model, that demonstrated significant correlations with SAPSSS scores: inter-individual practices, group practices, and intergroup practices. This is especially notable as they were not the most selected, and neither awareness nor referral frequencies had significant relationships with social stigma.

The number of inter-individual practices in which a professional engaged had a correlation of -0.27 (significance = 0.002) with SAPSSS scores. Inter-individual practices target relationships between individuals in hopes that individuals will support each other in seeking help. These types of practices include gatekeeper training, peer-to-peer mental health training, and suicide prevention training. In general, these types of practices teach individuals how to recognize signs of distress in students, friends, roommates, classmates, colleagues, and other members of the campus community; teach them about campus resources for mental health; teach them how to talk to someone and support them in seeking help; and, often, provide space to practice such interactions.

Group practices were originally divided into intra-group practices and intergroup practices. While intra-group practices did not demonstrate a significant correlation with SAPSSS scores, there was a correlation when combined with intergroup practices, perhaps because intra-group practices were rare. The combined group practices yielded a correlation of -0.20 correlation with SAPSSS scores with 0.027 significance.

Group practices require connections to already exist. For intra-group practices, connections exist or are created within the group. Intergroup practices require existing

groups to connect. Again, the social nature of these practices promote building genuine connections on campuses for the good of the whole community.

Curiously, no intra-group practices had any significant correlations with SAPSSS scores. This could be due to the lower numbers of intra-group practices at IHE's.

When isolated from intra-group practices, intergroup practices had a correlation of -0.20 with SAPSSS scores with 0.029 significance. Three intergroup practices had significant correlations with SAPSSS scores: counselor outreach to faculty and staff, inter-departmental procedures to support students through difficult life events, and protocols to share information with various stakeholders about students at risk for suicide.

For all three correlations, it is possible that engaging in more interpersonal and group practices lowers one's social stigma, but other explanations are possible too. Perhaps professionals with lower levels of stigma engage more often in these practices. Perhaps another factor or factors, such as having a family member with a diagnosed mental illness, influences both the level of stigma and the likelihood of engaging in interpersonal and group mental health practices.

What is important about these findings is the support it lends to the building of caring campus communities. IHE's that foster genuine connections and teach communities how to care for each other may find ample benefits that include lower levels of social stigma and higher levels of help-seeking behaviors. Practices that connect people may foster compassion, a sense of humanity for the person, and a genuine concern for the well-being of others within the community. In addition, social relationships themselves may be a protective factor from some types of mental illnesses, making them

a primary mental health practice. This study, as well as other research, consistently demonstrates the benefits of social connections on campus for all realms of health.

Engagement in practices and stigma. Practices with significant relationships with social stigma hold the greatest potential for changing social stigma on campus and campus cultures surrounding mental health. While it is not possible to demonstrate causation through this study, causation is possible and could be explored through additional study now that there is a smaller list of practices on which to focus.

Interestingly, more empirical research was available about the practices with which engagement was correlated with social stigma. Perhaps researchers have noticed the potential of these practices to influence mental health on campuses and wished to explore further. For the good of mental health on campuses, additional research would be useful to explore various types of measures of effectiveness and how to select the best practices with the resources IHE's have available.

Staff Information and Stigma

Research question #4b was "What subpopulations of Student Affairs staff are associated with lower levels of social stigma?" Due to the sample size and diversity, only a few clues to answer this question are available through this study.

Staff Level

SAPSSS means for the levels of assistant vice president ($\bar{x} = 52$), senior level ($\bar{x} = 50.74$), and mid-level ($\bar{x} = 52.12$) all fell above the general mean ($\bar{x} = 50.54$); however, they were within the upper and lower bounds of the mean with a 95% confidence level. The levels of Chief Student Affairs Officer ($\bar{x} = 42$), associate vice president ($\bar{x} = 43$), and entry level ($\bar{x} = 48.58$) fell below the mean and below the lower bound, but only

entry level positions were significantly correlated with SAPSSS scores (-0.148 with a significance level of 0.050).

These results do not support the hypothesis that professionals in higher levels would have higher levels of stigma due to their responsibilities to the institution and distance from individual students, but, due to low response numbers from upper levels and lack of significance, this study does not refute the hypothesis. While entry-level respondents seem to have lower levels of stigma than mid-level or senior level, the SAPSSS score means for the other levels are not conclusive due to low numbers within the sample, particularly for the Chief Student Affairs Officer, associate vice president, and assistant vice president levels.

The literature does not offer any explanations as to why entry-level respondents might have lower levels of stigma. It may be that entry-level staff are more likely to be closer in age to students and may work more closely with students, allowing for more contact and closer relationships. This difference could also signal a change in how and when professionals are learning about mental health, personally and in the context of their profession. These findings were curious and additional information would be needed to draw conclusions about the differences between entry-level staff and other levels.

Student Affairs Offices

Most offices were not represented well enough to make conclusions about their levels of social stigma. Only three offices had over ten respondents: administration (n=19), recreation (n=43), and residential life / housing (n=28). These offices had SAPSSS mean scores of 50.42, 52.07, and 47.79, respectively. The SAPSSS scores for

administration and recreation lie within the 95% confidence interval for the general mean (48.92-52.17). Only residential life / housing truly lies below the mean though not by a wide margin.

While it is possible other offices have significant differences in terms of social stigma that this study is unable to determine, the low social stigma scores for residential life / housing professionals does align with other findings in this study. Residential life / housing professionals usually participate in ample training in the supervision and care of students who reside on campus, including the highly, negatively correlated practices such as gatekeeper training. In addition, they often plan, facilitate, and/or participate in additional training sessions for their student staff members who supervise and advise other students. These training sessions are likely to include components of mental health knowledge and care, such as gatekeeper training or suicide prevention training. These trainings have demonstrated significant negative correlations with stigma. While this study does not imply causation, it is logical that if these practices have associations with lower levels of social stigma and residential life / housing professionals participate regularly in these types of trainings, they would also demonstrate lower levels of social stigma.

Administrative staff scored very close to the general mean for SAPSSS scores. Even though there were more administrative staff than most other offices, the low response rates and lack of difference between this group and the larger sample does not allow for any conclusions.

Recreation professionals had slightly higher SAPSSS scores than the general mean. This was also the most highly represented group due to the researcher's

connections and direct invitations to so many members of this community. These professionals may have had slightly different motivations for completing the survey than other respondents due to their direct connection to the researcher. Perhaps this group shows a truer measure of social stigma than other offices as respondents in other offices more likely completed the survey due to their connection to the topic rather than their connection to the researcher. However, the higher SAPSSS scores could also be representative of more socially stigmatizing attitudes in recreation professionals. Some professionals within recreation see physical health as a matter of hard work and commitment rather than circumstance. This attitude could easily translate to other aspects of health, such as mental health, which would certainly contribute to social stigma as this represents the prejudicial attitude that individuals with mental illness are not trying hard enough to better themselves and they could be healthy if they committed to it. Due to the established connection between physical and mental health, further research on recreation professionals and campus mental health is recommended.

No other hypothesis involving staff offices were supported nor rejected through this study. While findings from this study suggest that counseling office professionals would also demonstrate lower levels of social stigma due to their involvement in many of the practices associated with lower levels of stigma, there were not enough respondents from the counseling office to make conclusions about their levels of social stigma. There were no other hypotheses specific to Student Affairs offices.

Length of Employment

Respondents were asked to indicate the length of time they had been connected with their current institution in any role. The length of employment was not normally

distributed as professionals within Student Affairs often move between institutions to advance, so there were fewer professionals as time increased. There were no analyses with significant results involving length of employment.

Staff Information Summary

While collecting staff information was important to determine the makeup of the sample, the sample size was too small to make any meaningful conclusions about staff information and social stigma. While it appears entry level and residence life professionals demonstrated lower levels of social stigma, other categories had too few representatives to draw explicit comparisons. To answer research question #4b, a larger sample with increased responses from underrepresented categories would be necessary.

Institutional Information and Stigma

Institutional information was collected to answer research question #4c: “What institutional characteristics are associated with lower levels of social stigma?” Institution type, size, religious affiliation, and designation were examined in relationship to SAPSSS scores. Institutional information included ample responses for most categories, but there were few significant differences between variables.

Type of Institution

There were 86 respondents from public institutions and 39 respondents from private institutions. Their means were 50.67 and 50.26 respectively. As the general mean was 50.54, there were no statistical differences between respondents from public or private institutions.

Institution Size

There were statistical differences between groups according to an analysis of variance between the five categories for size (significance = 0.643). However, the mean SAPSSS scores for large institutions ($\bar{x} = 51.38$), mid-size institutions ($\bar{x} = 51.52$), small institutions ($\bar{x} = 50.44$), and very small institutions ($\bar{x} = 49.50$) all lied within the 95% confidence interval for the general mean. Only large institutions lied outside of the interval with a mean of 48.33, just slightly below the lower bound.

The hypothesis for size and social stigma was that smaller institutions would have both higher and lower scores for social stigma as influencing a smaller community for either higher or lower levels of stigma could happen more quickly at a smaller institution than would be possible at a larger institution. However, the small and very small institutions had the smallest ranges of scores and had means, medians, and modes within the general mean 95% confidence level. Due to the low number of responses from these types of institutions (13 responses from small institutions and 4 responses from very small institutions), no significant conclusions can be made about the social stigma levels of small or very small institutions.

Even though very large institutions had a mean below the lower bound of the general mean, this group only had 30 responses and the largest range of responses. If very large institutions due, in fact, have the lowest levels of social stigma, it is possible that is due to the increased availability of on-campus mental health care. Gallagher (2014) explained that large institutions were more likely to have on-campus counseling centers and additional mental health practices were increasing at larger schools at higher

rates than lower schools, particularly crisis services, gatekeeper training, and skills training for clients.

These results suggest that size may not be a strong factor in determining social stigma levels at an institutions; however, access to mental health resources may be a more significant factor. With a large range and availability of campus mental health practices, faculty, staff, and students can find the practice that best fits their needs and level of comfort.

Table 22

Institutional size SAPSSS score comparison

	N	Mean	Minimum	Maximum	Median	Mode
Very Large (>30,000)	30	48.33*	26	67	49	50
Large (10,000-29,999)	61	51.38	37	72	51	51
Mid-Size (3,000-9,999)	21	51.52	31	70	52	52
Small (1,000-2,999)	13	50.44	39	62	49	49
Very Small (<1,000)	4	50.58	45	56	48.5	NA

Note: *Outside of the general mean 95% confidence interval

Discussion

While regression analysis did not offer useful models for predicting levels of social stigma, several other analyses offered insights into possible strategies for reducing social stigma on campuses. This section will provide a discussion of the findings regarding individual practices and groups of practices. While this study does not purport to support causes for lower levels of stigma, the combination of findings shows some

potential for strategies for lowering social stigma at IHE's and provides many implications for practice and further research.

Individual Practices

While one-on-one counseling and the on-campus counseling centers topped the lists for awareness and referral, one-on-one counseling was twentieth on the list of practices in which Student Affairs professionals had engaged (12.8%). The on-campus counseling center was eleventh, but only 19.2% of professionals indicated they had engaged with the center. Neither of these practices were associated with lower levels of stigma for awareness, referral, nor engagement. While having these resources on campuses may be extremely important to support mental health, they may be underutilized due to the stigma associated with mental illness and seeking professional mental health.

All respondents were aware of at least some campus mental health practices at their current institution, and over three-quarters of professionals had referred students to campus mental health practices. Engagement levels, however, were much lower, with the most popular practice (active shooter training) seeing less than half of professionals engaging. The strongest correlations with SAPSSS were for practices in which Student Affairs professionals engaged, and all practices where awareness was correlated with SAPSSS scores also showed correlations in regards to referral and/or engagement. While awareness of some practices had significant correlations, it is unlikely that awareness alone will alter a professional's level of social stigma. These results suggest a few possibilities: there is a difference between professionals who refer to and engage in these

practices; something is influencing both social stigma and participation in these practices; or these practices influence social stigma directly.

While engagement had the strongest negative correlations with SAPSSS scores, those practices with significant correlations were not the practices in which Student Affairs professionals most often engage. Professionals most often engaged in active shooter training (49.6%), collaboration between counseling and Student Affairs offices (43.2%), anti-stress / destress programs (33.6%), inter-departmental procedures to support students through difficult life events (29.6%), and protocols to share information with various stakeholders about students at risk for suicide (28.0%). Anti-stress / destress programs (referral), inter-departmental procedures to support students through difficult life events (engagement), and protocols to share information with various stakeholders about students at risk for suicide (engagement) had significant correlations with social stigma. However, the most cited practices for engagement did not demonstrate significant correlations.

Collaboration between counseling and Student Affairs offices may be important in other measures than social stigma. Building intentional relationships between counseling and Student Affairs may increase professionals' levels of awareness so that they are more able to refer students to the appropriate resources. However, the results of this study suggest that in developing these relationships, finding ways to engage professionals in mental health practices may be instrumental in reducing social stigma so that students follow through with referrals.

The practice in which the most staff had engaged was active shooter training. Almost half of professionals had engaged in active shooter training, which, while

responding to a reality on today's campuses, trains staff to react to a very unlikely event. This practice is becoming more common as the media generally provides widespread, national coverage of shooting events as they unfold and throughout the aftermath. Deaths by self-harm garner much less attention, even in local sources, for many reasons, and thus, IHE's have less pressure or information to respond. Despite the regular occurrence of students in distress on every campus, fewer staff had engaged in practices to lower risk of self-harm, to recognize and respond to signs of distress, and to prevent death by suicide than had engaged in practices to combat the extremely unlikely occurrence of mass violence. While training staff in strategies to make campuses safer is always beneficial, many more students die by violence towards themselves than by violence from others. IHE's that wish to keep students as safe as possible should consider investing more resources towards practices that prevent and respond to student mental health concerns and self-harm to make their campuses safer places.

One other notable finding of relationships between specific practices and social stigma was the lack of relationship between social stigma and anti-stigma campaigns. It appears that campaigning against stigma did not show a significant reduction in stigma itself. Focusing on stigma, as opposed to a more positive aspect of mental health, may cause participants to feel more stress or exposed about their own mental health. While reducing stigma may be instrumental in increasing help-seeking behaviors, it may be more important to provide practices that support positive action and connection. Other practices, such as interpersonal practices, seemed to be more likely to influence social stigma than drawing attention to stigma itself. This study itself used a deficit model and focused on stigma, like many other studies. The findings support recommendations for

further studies to use an appreciative approach, to study what practices support campus mental health, perhaps focusing on social practices, which seem to have many mental health benefits.

Many practices on the full list of campus mental health practices may have important outcomes regarding student mental health. Many practices may be or lead to effective, appropriate treatment options for students or may encourage base-level mental health across campus. This study focused on practices that have relationships with social stigma as stigma is negatively correlated to help-seeking behaviors, which are mentally healthy behaviors. The practices associated with lower levels of stigma have the potential to lower levels of social stigma and may be useful in increasing help-seeking behaviors.

Groups of Practices

In the analysis, the data was analyzed using the preventative public health model, the socio-ecological model, and Corrigan's (2004) model of stigma. No regression model proved effective in predicting SAPSSS scores using any of the models. Only inter-individual and group practices within the socio-ecological model showed significant relationships with SAPSSS scores.

To further explore how the models might inform these results, Table 23 categorizes the individual practices of which respondents were aware with significant relationships with SAPSSS within each of the 3 models. The significant practices within awareness that demonstrated significant negative correlations with SAPSSS scores were secondary, individual and inter-individual, and educational practices. Those with positive correlations were primary, intra-individual, and educational practices. While an

early hypothesis proposed that primary practices may be more effective in lowering social stigma, these findings show the opposite. Practices that address signs and symptoms that already exist had negative associations with stigma while those that worked to prevent them had positive (or insignificant) associations. Individual and inter-individual practices showed negative correlations while intra-individual correlations showed positive correlations in terms of awareness, which may show that externalizing care for mental health may be more comfortable than internalizing care, which may force individuals to recognize their own mental health concerns and increase their stigma. Within awareness, it is unlikely that becoming aware of practices lowers stigma. However, being aware of a practice that would cause one to explore their personal mental health concerns may be stressful for someone who is unready to do so and may increase stigma.

Table 23

Awareness: Significant individual practices categorized using the models

	Preventative Public Health Model	Socio-ecological Model	Corrigan's (2004) Model of Stigma
Empathy training*	primary	intra-individual	n/a
Stress management training*	primary	intra-individual	education
Gatekeeper training	secondary	inter-individual	education
Web-based suicide risk screening	secondary	individual	n/a

Note: *positive relationships with social stigma

Referral practices that were significantly associated changes in SAPSSS scores existed in all levels of the preventative public health model, within all factors in Corrigan's (2004) model of stigma, and in several levels of the socio-ecological model.

Because referring a student to a mental health practice is not likely to influence social stigma directly, it is more likely Student Affairs professionals who referred students to these practices already had lower levels of stigma. The variety of practices in this group suggests that Student Affairs professionals with lower levels of stigma may recognize the variety of mental health resources on campuses and the multiple entry points to refer students to start receiving help.

Table 24

Referral: Significant individual practices categorized using the models

	Preventative Public Health Model	Socio-ecological Model	Corrigan's (2004) Model of Stigma
Stress management training	Primary	intra-individual	education
Anti-stress / destress programs or campaigns	primary / secondary	individual	education / protest
Counselor outreach to faculty and staff	primary / secondary	intergroup	contact (with counselors)
Early intervention suicide prevention program	secondary	individual	n/a
Gatekeeper Training	secondary	inter-individual	education
Mental health screening during health center visits	secondary	individual	n/a
Web-based suicide risk screening	secondary	individual	n/a
Mandated disciplinary mental health counseling	tertiary	individual	n/a
Collaborative, interdisciplinary systems of mental health care	all levels	institutional	n/a

Engagement practices showed the strongest correlations with SAPSSS scores and showed a similar variety as referral practices. Most of the practices within this group

were secondary, inter-individual or intergroup practices, and included an element of contact, education, or protest. While Student Affairs professionals with lower levels of stigma may be more likely to participate in these practices or another factor may influence social stigma and participation (e.g. a supervisor who values learning about campus mental health care), these practices show the most promise to become strategies for lowering social stigma. While increasing contact, education, or protest may assist in lowering stigma, as stated in Corrigan's (2004) model of stigma, practices that encourage members of the campus community to learn and recognize signs and symptoms of distress in others and how to respond may be the most effective in lowering stigma and creating a healthier campus community.

While only some practices within categories showed significant, negative relationships with social stigma, there are some patterns. Practices associated with lower levels of stigma were most frequently secondary, inter-individual, educational practices and tertiary, intergroup, contact practices. These types of practices may be the most beneficial in lowering levels of social stigma on campuses.

Secondary, inter-individual, educational practices target relationships so that anyone on campus can be trained to recognize and respond to others in distress. These types of trainings may lower stigma as participants learn facts about signs and symptoms of mental illness, types and availability of treatment and resources, and consequences of forgoing treatment. Participants in these trainings may experience lower levels of social stigma and thus more capacity for supporting others in seeking help. These types of practices have the most potential as they can target anyone and any relationships at IHE's.

Table 25

Engagement: Significant individual practices categorized using the models

	Preventative Public Health Model	Socio-ecological Model	Corrigan's (2004) Model of Stigma
Empathy training*	Primary	intra-individual	n/a
Counselor outreach to faculty and staff	primary / secondary	intergroup	contact (with counselors)
Campus-wide suicide prevention program	Secondary	institutional	education / protest
Gatekeeper training	Secondary	inter-individual	education
Peer-to-peer mental health support training	Secondary	inter-individual	education
Suicide prevention training	Secondary	inter-individual	education
Inter-departmental procedures to support students through difficult life events	Tertiary	intergroup	contact
Protocols to share information with various stakeholders about students at-risk for suicide	Tertiary	intergroup	contact

Note: *positive relationship with social stigma

Tertiary, intergroup, contact practices target communication between already existing groups to support students in crisis. These practices are reactionary in nature but increase contact between faculty, staff, and administrators and students displaying more extreme signs of distress. While many campuses have procedures to increase communication in crisis situations, participation in these types of practices shows potential for lower levels of stigma of those involved. While student privacy and wellbeing should be the most important concern in such situations, this study suggests the possibility that a diverse range of faculty, staff, and administrators might benefit from participation in communicating about and caring for students following a crisis situation.

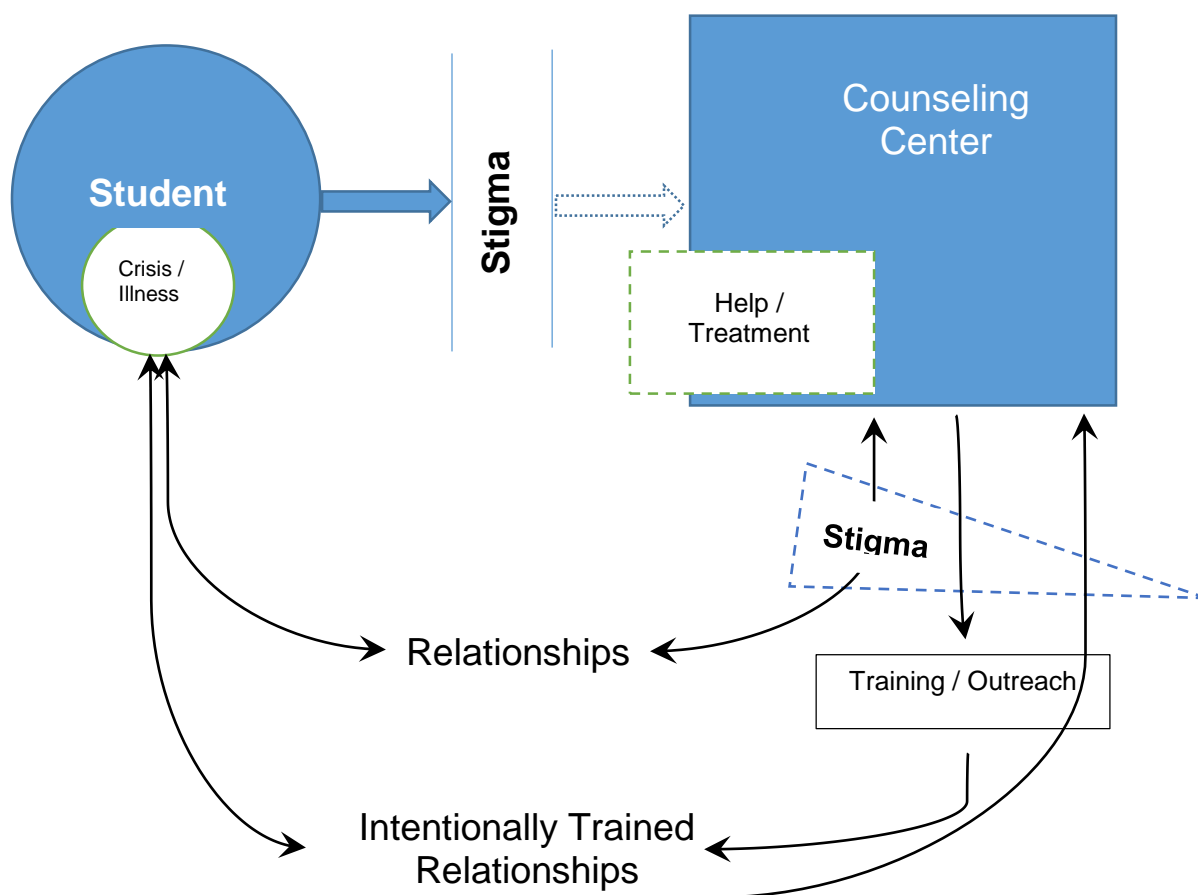
While statements of causation are not possible with this study, secondary, inter-individual, educational practices and tertiary, intergroup, contact practices are ripe for additional study concerning the effectiveness of their immediate goals (student support) and in their potential to lower levels of social stigma. These types of practices may be a good use of IHE resources to lower levels of stigma, which may then increase healthy behaviors, such as help-seeking.

Intentional Social Connection for Campus Mental Health Model

These two findings fostered the development of a model to better understand and guide intentional efforts towards caring campus communities. See Figure 2.

Figure 2

Intentional Social Connection for Campus Mental Health Model



This model gives a visual representation for connecting students with a mental illness or in crisis to care or treatment on campus. In current models, stigma is a barrier to help, one which can be surpassed but often is not. Help / treatment options lie within and without the counseling center as some students may need help from a qualified mental health professional while others may benefit most from other campus resources, such as increased social connection through student organizations or increased physical activity through an exercise program.

In this model, different from previously proposed models, relationships serve as a resource for connecting students to help and as a point of proactive intervention. Even without intentional training or outreach, individuals (faculty, staff, and/or students) may notice signs of distress in another member of the campus community and may act to connect that individual to the appropriate resources. However, if IHE's provide intentional training to any and all members of a campus community, stigma, while it still exists, will lessen, and, more importantly, help-seeking behaviors will increase and become normalized. When faculty, staff, and students feel connected to their institution and their community, they want to care for each other. Creating environments where individuals form genuine relationships allows for primary prevention of some mental illness and for secondary prevention as individuals with genuine relationships may recognize changes in others' behaviors and may be more willing to seek help when they feel safe in a relationship. Providing intentional training and outreach to all levels of the campus communities gives everyone opportunities and resources that allow them to take actions to care for each other.

Summary of Discussion

While the prevalence of mental illness on campuses, its effects on individuals with mental illness, and low numbers of students seeking available, effective treatment can all be overwhelming, the results of this study demonstrate many areas of hope for improving campus mental health and help-seeking behaviors. While the individual practices found here to be associated with lower levels of stigma could be good strategies in isolation for decreasing social stigma, it is more likely that developing a caring campus community with genuine connections could be even more beneficial. This theory is further supported by the results from group analyses where higher frequencies of engaging in inter-individual and group practices, where relationships already exist, were also associated with lower levels of stigma. Promoting genuine connections could be beneficial for community mental health, and once developed, these connections can be targeted intentionally to teach members of the community how to care for each other and themselves.

Implications

This study informs the research questions but was not able to answer any of the research questions fully. The findings provide ample implications for practice and further research to further answer these important questions for institutions of higher education.

Practice

The information collected to answer research question one provides a list of practices that IHE's are using to support campus mental health. While there are common

practices and registries, this list provides a diverse list of practices that might be helpful in considering the practices that best fit an individual institution.

As discussed above, individual practices could be incorporated into campuses as strategies to reduce social stigma and increase participation in campus mental health. In particular, practices such as gatekeeper training, peer-to-peer mental health training, and suicide prevention training appear to have multiple outcomes towards mental health and hold ample potential for reducing stigma. These practices target already existing interpersonal relationships and teach individuals within a community how to care for each other.

Similarly, intergroup practices, such as procedures to support students in crisis, hold potential in influencing faculty and staff and the way they interact with students in distress. If appropriate training is provided to faculty and staff so that student mental health is a shared responsibility, these campus stakeholders may engage in actions that foster a mentally healthy campus community.

More generally, secondary, inter-individual, educational practices and tertiary, intergroup, contact practices may be a good starting point for IHE's to work towards reducing social stigma. Individuals within communities will be more likely to take action towards care for individuals with whom they already have relationships, and thus, promoting genuine connections and caring campus communities may be the best use of resources to improve campus mental health.

The findings in this study support the intentional development of caring campus communities. Many benefits and no disadvantages were found in the review of the literature nor in this study for practices that intentionally develop genuine relationships

between individuals and groups on campuses and teaching those groups how to care for each other. It appears that all stakeholders want mentally healthy campus environments and may be willing to engage in practices that will provide support and care for individuals and groups to which they are connected.

For Student Affairs offices, this research demonstrates the value of spaces, programs, and events that increase social connections, which is work that many Student Affairs offices already do. This research suggests that intentionally building relationships with and between students may be a vital part of campus wellness. These findings also suggest that Student Affairs offices may want to seek mental health training and outreach for the professionals in their offices. It appears that Student Affairs professionals want to care for the students with whom they work and will take action to do so if they are given the appropriate knowledge and resources to do so. In particular, offices should consider secondary, inter-individual, educational practices and development of tertiary, intergroup, contact practices to engage Student Affairs professionals and to emphasize their role in the care of the campus community.

Research

In terms of answering research question #1, a large list of campus mental health practices was generated using journals and conference programs from the last 10 years. This list could be refined and more comprehensive if specific institutions were surveyed and verified by on-campus counseling professionals. This list could be useful to share with the field of collegiate counseling so institutions could have a better understanding of standards and variety in the field.

While this study provides some basis as to the practices of which the professionals in the study were most aware, a more general survey of campus use of these practices would be useful. This study asked only about awareness, not existence, of various campus mental health practices. Learning about the popularity of various practices may inform both researchers and practitioners as there is currently no benchmarks nor requirements for campuses.

Each of the practices identified as having significant relationships with social stigma is ripe for further exploration, both qualitatively and quantitatively. These practices should be studied for outcomes in addition to stigma, and an experimental design would be helpful in determining the actual effects of these practices on social and personal stigma.

The models and groups of practices could be useful if a study was designed in a way to more carefully observe their effects when isolated from other variables.

Following this study, secondary, inter-individual, educational practices and tertiary, intergroup, contact practices are particularly ripe for additional study to determine their influence on social stigma on campuses. Due to the quantitative analysis of this study and the use of all practices mined from journals and conference programs, distinctions isolated to specific models were difficult to discern.

Limitations

While there were some findings with important implications, this study had multiple limitations that could have made findings clearer and interpretations of findings for practice and research more useful. Most specifically, the sample size, sampling method, and analysis methods may have clouded the results.

The size of the sample limited the conclusions possible for some less common mental health practices, staffing information, and institutional information. Some variables had numbers too low to make any findings generalizable. A larger sample, particularly targeting variables underrepresented in this data set, would be helpful in answering research questions #4b and #4c.

The study was limited by methods of sampling. The initial sample was collected using snowball, convenience sampling, and, therefore, the sample is not random and no generalizations can be made about the overall population of Student Affairs professionals. In particular, recreation professionals were oversampled and may have been differently motivated than some other respondents, which may have skewed the results. The second sample was a targeted, random sample, but the low response rates show that there was a self-selection bias in both samples. Student Affairs professionals who have a more vested interest in mental health, on or off campus, or who have a direct connection to the researcher may have been more likely to participate. While the relationships found may still be useful in practice and research, it is important to note that this sample is not likely fully representative of all Student Affairs professionals and likely excluded individuals with the least experience in mental health and possibly the highest levels of social stigma.

The Student Affairs Professional Social Stigma Scale (SAPSSS) was newly developed for this study. While it showed appropriate psychometric properties (i.e. normality, factor analysis, Cronbach's alpha), the scale would benefit additional testing (e.g. test-retest, additional expert review) to confirm its reliability and validity.

The use of correlation and regression analysis allows for identifying significant relationships, the meaning of these relationships and the cause of these relationships were not possible. While this study offers some explanations as to the relationships, no causes for lower levels of social stigma can be directly supported using these methods of analysis.

Conclusion

This study used the framework of stigma and focused on a sample of Student Affairs professionals. The findings support recent literature and recommendations (e.g. The Jed Foundation) for a shift in deficit-model thinking and a movement to caring cultures where responsibility for student mental health is distributed to all stakeholders. The findings suggest the significant value of spaces, offices, programs, and events that promote genuine social relationships and intentional, caring communities everywhere on campuses. While some areas of campus build community through the nature of their work, it is important that this work be intentionally caring and that all areas of campus participate in community to the benefit of all. Strategies for building intentional, caring campus communities is a topic ripe for additional research and innovation in practice.

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APPENDIX A

Resources for Mining Practices

The following resources were searched systematically to compile a list of mental health practices at institutions of higher education.

Journals and Publications

- American College Health Association (ACHA) White Paper, 2010
- *Journal of American College Health*, 2006-2015
- *Journal of College Counseling*, 2006-2015
- National College Depression Partnership (NCDP) publications, 2007-2010
(*College Health in Action*, 2008; *NASPA Leadership Exchange*, 2010; *Psychiatric News*, 2007; *Student Health Spectrum*, 2007)

Conferences and Presentations

- ACHA Annual Meeting, 2006-2014
- Depression on College Campuses Conference, 2006-2015
- Molloy College Mental Health Conference, 2014 & 2015 (Note: This conference has only existed for these 2 years and is not directly geared towards campus mental health.)
- Student Affairs Professionals in Higher Education (NASPA) Mental Health conference, 2014 & 2015 (Notes: The keynote and plenary speaker topics were not available for 2015. Conferences took place prior to 2014, but their programs were not available to the researcher.)
- National College Depression Partnership (NCDP)-led presentations (NASPA 2010, webinars, ACHA Annual meeting 2009)

Registries

- Substance Abuse and Mental Health Services Administration National Registry for Evidence-Based Programs and Practices 2006-2014 (selected age group 18-25)

APPENDIX B

List of Campus Mental Health Practices

The following practices were systematically mined from the resources listed in Appendix A: Resources for Mining Practices. There were a total of 85 practices found: 13 intra-individual practices, 24 individual practices, 10 inter-individual practices, 6 intra-group practices, 14 inter-group practices, 15 institutional practices, and 3 community practices. Practices are listed using the socio-ecological framework used in the survey methodology for this study and appear in the order of frequency (in parentheses below) and recency within the review of the resources. The frequency does not indicate the popularity of the practice at institutions of higher education, only the frequency with which it was the subject of articles, presentations, and registry entries within the reviewed resources.

Intra-individual: 13 practices

- Mindfulness training (17)
- Resilience training (7)
- Meditation training or therapy (4)
- Stress management training (3)
- Mood management training (2)
- Anxiety management workshops (1)
- Wellness coaching (1)
- Biofeedback-assisted-relaxation training (1)
- Psychosocial wellness training (1)
- Empathy training (1)

- Life coaching (1)
- A walking labyrinth (1)
- Yoga through the counseling center (1)

Individual: 24 practices

- One-on-one counseling in a counseling office (39)
- Web-based therapy or telemental health services (6)
- Web-based mental health, at-risk, or suicide risk screening (4)
- Animal / pet / canine therapy (4)
- Smartphone / mobile phone / tablet mental health application (3)
- Psychiatric medication reminders (1)
- Academic accommodations for students with mental health disabilities (1)
- Stress reduction lab (1)
- Early intervention suicide prevention program (1)
- Let's Talk drop-in program (1)
- On-campus intensive outpatient counseling program (1)
- Mental health counseling for distance learners (1)
- Comprehensive psychiatric emergency program (1)
- Online mental health portal (1)
- Mental health screening during health center visits (1)
- Supported education for students with severe mental illness (1)
- Psychiatric advance directives (1)
- Online mental health courses (1)
- Chronic (Collaborative) Care Model for mental health (1)

- Mandated disciplinary counseling (1)
- Web-based outreach to at risk students (1)
- Temporary stress-free zones (e.g. finals week) (1)
- Forced withdrawal for suicidal students (1)
- Counseling center outreach (1)

Inter-individual: 10 practices

- Gatekeeper training (7)
- Peer mental health mentors (5)
- Mental health bystander training (2)
- Peer-to-peer mental health support training (2)
- Couples counseling (2)
- Mental Health First Aid (2)
- QPR (Question, Persuade, Refer) Training (2)
- Online peer mental health support training (e.g. Kognito) (2)
- Counselor outreach to faculty and staff (2)
- Suicide prevention training (1)

Intra-group: 6 practices

- Group therapy (7)
- Academic curriculum in mental health promotion (for non-mental health-related majors, e.g. first year experience, positive psychology) (5)
- Group self-care events (1)
- Mental health learning community (1)
- Active Minds student organization (1)

- Identity-based discussion groups (1)

Inter-group: 14 practices

- Collaboration between health services and counseling (10)
- Behavioral concerns team / behavioral intervention team / threat assessment team (6)
- Counseling center outreach to specific subpopulations of students (veterans, students of color, students identifying as LGBT*, men, first year students, students in particular majors) (5)
- Collaboration between counseling and athletics (3)
- Collaboration between counseling and other Student Affairs offices (3)
- Protocol to share information with various stakeholders about students at-risk for suicide (2)
- Cross-campus mental health task force / committee (1)
- Collaboration between counseling and residential life (1)
- Collaboration between counseling and academic areas (1)
- Collaboration between counseling and recreation (1)
- Health center and counseling services record integration (e.g. shared electronic records) (1)
- Case managers (1)
- Procedures for student support for difficult, personal life events (1)
- Residence hall suicide prevention program (e.g. SOS) (1)

Institutional: 15 practices

- Integration of health services and counseling (22)

- On-campus counseling center (16)
- De-stress/anti-stress events, programs, or campaigns (5)
- Comprehensive suicide prevention program (e.g. Project Lifeline) (3)
- Universal mental health prevention programs (3)
- Campus suicide postvention procedures (2)
- Universal mental health promotion programs (2)
- Suicide prevention program (1)
- Self-care events (1)
- Mental health social media campaign (1)
- Collaborative, interdisciplinary systems of mental health care (1)
- Mental health-themed educational theater (1)
- Mental health stigma reduction campaign (1)
- Mental health stigma reduction training (1)
- Suicide prevention campaign (1)

Community: 3 practices

- Participation in the National College Health Assessment by the American College Health Association, the Healthy Minds study, or another large, continuous, national study that includes mental health (2)
- Collaboration with community mental health providers (1)
- Community support meetings for tragic events (1)

Public Policy: 0 practices

APPENDIX C

Announcement to Survey Testing Participants

Dear colleagues,

Thank you so much to those of you who participated in the testing phase of my survey. I sent it to you during a very busy time of year for everyone in higher education, and I appreciate your time and feedback.

I have now finished testing and editing the survey. In one week, I am going to open the survey for responses that will be included in that data set for my research. The purpose of my research is to explore how Student Affairs professionals work with students with mental illness and which practices might be useful in improving campus mental health. To ensure I have enough data for analysis, my goal is to have 400-600 responses from a diverse range of institutions and professionals. Because there is no universal list of Student Affairs professionals, I will be relying on distributing the survey through listservs, discussion boards, and colleagues.

Whether or not you were able to complete the test survey, I could use your help in forwarding the survey link on to other Student Affairs colleagues who you believe would be interested in helping further the knowledge in our field on the topic of campus mental health. When I release the survey in one week, I will send you information that you can forward on to any colleague in Student Affairs. Of course, this is completely optional,

and as the survey is anonymous and will be distributed widely, I have no expectation nor method for tracking any forwarding.

If you were not able to complete the test survey in the short time frame I set, this survey will be open much longer, and your participation now would be just as helpful as during the testing.

I have already submitted to present preliminary findings at two conferences, and once the research is complete, I hope to share the information I find more widely to further inform the work we do with students. I deeply appreciate that so many of you have already been willing to help and appreciate this additional help if you are able.

Thank you, and please contact me if you have any questions or concerns,

Megan Krone

Doctoral Candidate

University of San Diego

APPENDIX D

Announcement for Convenience, Snowball Sample

Dear colleague,

I am in the process of completing my research requirement for my Ph.D. in Leadership Studies from the University of San Diego. For my research, I am exploring campus mental health practices through a survey of Student Affairs professionals with any level of experience, in any professional area, at four-year, non-profit institutions in the United States. The purpose of my research is to explore how Student Affairs professionals work with students with mental illness and which practices might be useful in improving campus mental health.

In one week, I am going to open the survey and begin collecting responses. Because there is no universal list of Student Affairs professionals, I will be relying on distributing the survey through listservs, discussion boards, and colleagues. I am including you in this announcement in hopes that you will be willing to help me collect information that could further inform our work with college students.

When I release the survey in one week, I will e-mail you just one more time about this research in hopes that you will 1) complete the survey, which should take 15-20 minutes and/or 2) forward the survey link to any colleagues in Student Affairs. The survey is anonymous and will be distributed widely, so participation in or forwarding of the survey will be completely optional and untraceable.

I have already submitted to present preliminary findings at two conferences, and once the research is complete, I plan to share the information I find more widely to further inform the work we do with students. I deeply appreciate that so many of you have already been willing to help and appreciate this additional help if you are able.

Thank you, and please contact me or my dissertation chair, Dr. Christopher Newman, if you have any questions or concerns,

Megan Krone

Doctoral Candidate, Department of Leadership Studies

School of Leadership and Education Sciences

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mkrone@san Diego.edu

Dr. Christopher Newman

Assistant Professor, Department of Leadership Studies

School of Leadership and Education Sciences

University of San Diego

cnewman@san Diego.edu

(619)260-8896

APPENDIX E

Invitation to Participate in Research (Convenience, Snowball Sample)

Dear colleagues,

You are invited to participate in a research study of Student Affairs professionals and campus mental health practices. This study seeks participants who are Student Affairs professionals (or equivalent) with any level of experience, in any professional area, at four-year, non-profit institutions in the United States. The purpose of the research is to explore how Student Affairs professionals work with students with mental illness and which practices might be useful in improving campus mental health. Your participation in this survey will contribute to the field of higher education and will further inform the work higher education professionals do with students. Campus mental health resources will be provided at the beginning and end of the survey and are also available by contacting the researcher.

The survey should take 15-20 minutes to complete. Participation is optional and anonymous.

To participate, please click on the link below. If the survey does not open, please cut and paste the link into your browser.

http://usd.qualtrics.com/SE/?SID=SV_bxennen1rjOXrA9

This research will be most valuable if the participant sample is large and diverse. If you have any colleagues, at your institution or another, in your area of Student Affairs or another, please feel free to forward this invitation to any colleagues or networks you feel might be interested in participating in this research.

The researcher is in the process of completing the research requirement for her Ph.D. in Leadership Studies from the University of San Diego. If you have any questions or concerns, please contact the researcher at mkrone@san Diego.edu or her dissertation chairperson, Dr. Christopher Newman at cnewman@san Diego.edu or (619)260-8896.

Thank you for your support,

Megan Krone
 Doctoral Candidate, Department of Leadership Studies
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APPENDIX F

Reminder to Participate (Convenience, Snowball Sample)

Dear Colleague,

This is a reminder that you have been invited to participate in a research study of Student Affairs professionals and campus mental health practices.

If you have already completed the survey, thank you so much for your participation, and I apologize for the additional reminder.

If you started the survey but did not complete it, your data will not be used in the analysis. You can restart the survey using the link below. Please note, the first 5 questions are lengthy, but the remainder of the survey should go rather quickly.

This study seeks participants who are Student Affairs professionals (or equivalent) with any level of experience, in any professional area, at four-year, non-profit institutions in the United States. The purpose of the research is to explore how Student Affairs professionals work with students with mental illness and which practices might be useful in improving campus mental health. Your participation in this survey will contribute to the field of higher education and will further inform the work higher education professionals do with students. Campus mental health resources will be provided at the beginning and end of the survey and are also available by contacting the researcher.

The survey should take 15-20 minutes to complete. Participation is optional and anonymous.

To participate, please click on the link below. If the survey does not open, please cut and paste the link into your browser.

http://usd.qualtrics.com/SE/?SID=SV_bxennen1rjOXrA9

This research will be most valuable if the participant sample is large and diverse. If you have any colleagues, at your institution or another, in your area of Student Affairs or another, please feel free to forward this invitation to any colleagues or networks you feel might be interested in participating in this research.

The researcher is in the process of completing the research requirement for her Ph.D. in Leadership Studies from the University of San Diego. If you have any questions or

concerns, please contact the researcher at mkrone@sandiego.edu or her dissertation chairperson, Dr. Christopher Newman at cnewman@sandiego.edu or (619)260-8896.

Thank you for your support,

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APPENDIX G

Invitation to Participate in Research (Targeted, Random Sample)

Dear \${m://FirstName},

You are invited to participate in a research study of Student Affairs professionals and campus mental health practices. This study seeks participants who are Student Affairs professionals (or equivalent) with any level of experience, in any professional area, at four-year, non-profit institutions in the United States.

The purpose of the research is to explore how Student Affairs professionals work with students with mental illness and which practices might be useful in improving campus mental health. Your participation in this survey will contribute to the field of higher education and will further inform the work higher education professionals do with students. Campus mental health resources will be provided at the beginning and end of the survey and are also available by contacting the researcher.

The survey should take 10-15 minutes to complete. Participation is optional and anonymous.

To participate, please click on the link below. If the survey does not open, please cut and paste the link into your browser.

\${l://SurveyLink?d=Take the Survey}

This research will be most valuable if the participant sample is large and diverse. If you have any colleagues, at your institution or another, in your area of Student Affairs or another, please feel free to forward the link below to any colleagues or networks you feel might be interested in participating in this research.

http://usd.qualtrics.com/SE/?SID=SV_bxennen1rjOXrA9

The researcher is in the process of completing the research requirement for her Ph.D. in Leadership Studies from the University of San Diego. If you have any questions or concerns, please contact the researcher at mkrone@san Diego.edu or her dissertation chairperson, Dr. Christopher Newman at cnewman@san Diego.edu or (619)260-8896.

Thank you for your support,

Megan Krone
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APPENDIX H

Reminder to Participate (Targeted, Random Sample)

Dear \${m://FirstName},

This is a reminder that you have been invited to participate in a study on Student Affairs professionals and campus mental health practices at your institution. Participants must be Student Affairs professionals (or equivalent), in any area, with any level of experience, at 4-year, non-profit institutions of higher education.

Your responses will help further knowledge in the field of higher education about how we currently work with students with mental illnesses and what practices might be most effective in encouraging healthy behaviors on campuses.

The survey should take 10-15 minutes to complete and all responses will be anonymous.

Follow this link to the Survey:

[\\${l://SurveyLink?d=Take the Survey}](#)

Or copy and paste the URL below into your internet browser:

[\\${l://SurveyURL}](#)

This research will be most valuable if the participant sample is large and diverse. If you have any colleagues, at your institution or another, in your area of Student Affairs or another, please feel free to forward the link below to any colleagues or networks you feel might be interested in participating in this research.

http://usd.qualtrics.com/SE/?SID=SV_bxennen1rjOXrA9

If you have any questions, concerns, or comments, please contact the researcher,

Megan Krone, doctoral candidate at the University of San Diego at mkrone@sandiego.edu or her adviser, Dr. Christopher Newman, Assistant Professor, at cnewman@sandiego.edu or (619)260-8896.

Thank you for your support,

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APPENDIX I

Final Reminder to Participate (Targeted, Random Sample)

Dear \${m://FirstName},

The survey for this research will close on Friday, December 18. Through your participation in this survey, you can help increase understanding of how to best work with and support students with mental illness on college campuses. This research seeks to gather information from a diverse range of Student Affairs professionals at a diverse range of institutions, so your responses will be valuable additions to this research no matter what your level of experience is in Student Affairs or with students with mental illness.

Any participants may include their contact information at the end of the survey to receive the results, but all responses for the purposes of the research will be recorded anonymously and reported statistically.

Follow this link to the Survey:

[\\${l://SurveyLink?d=Take the Survey}](#)

Or copy and paste the URL below into your internet browser:

[\\${l://SurveyURL}](#)

Thank you so much for your time.

Sincerely,

Megan Krone

Doctoral Candidate, Department of Leadership Studies, University of San Diego
mkrone@sandiego.edu

Dr. Christopher Newman, Dissertation Chairperson

Assistant Professor, Department of Leadership Studies, University of San Diego
cnewman@sandiego.edu

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APPENDIX J

Survey Instrument

Q1. Descriptive Text

Thank you for taking the time to participate in this survey. Participation in this study is completely voluntary, and you may discontinue the survey at any time. Your responses will only be recorded and used if you complete the survey. This survey should take about 15 minutes. All responses will remain anonymous. Any potentially identifying information (information about your role or institution) will only be used in statistical analysis. Demographic information will only be used to analyze diversity of the respondents. Contact information for the researcher and a listing national mental health resources will be available at the end of the survey.

Q2. Multiple Choice, Single Response

Research Participant Consent Form

Megan Krone is a doctoral candidate in the Department of Leadership Studies at the University of San Diego. The purpose of this research study is to learn more about how Student Affairs professionals engage in campus mental health practices and how they work with students with mental illness.

You will be asked to provide information on your experience with campus mental health practices, your thoughts on working with students with mental illness, information about your current position at your current institution, about your contact with individuals with mental illness, information about your current institution, and demographic information.

Your participation in this study will take a total of 15-20 minutes.

This survey may remind you of concerns you have about the mental health of you or someone you know. If you have concerns, please contact your doctor, your campus counseling office, or for immediate assistance anywhere in the United States, text START to 741-741 or call 1-800-273-TALK. This information and additional resources will be provided again at the end of the survey.

During this survey, you will be exposed to the vast range of mental health practices available on campuses. To learn more about any individual practice, contact the researcher.

By participating in this survey, you are helping to contribute to the knowledge about campus mental health practices, including which practices are used the most frequently and which practices seem to be linked to better conditions for mental health on campuses.

Any information provided and/or identifying records will remain anonymous and kept on a password-protected computer file for a minimum of five years. All data collected from you will be coded with a number. You will not be asked your name. The results of this

research project may be made public and information quoted in professional journals and meetings, but information from this study will only be reported as a group, and not individually.

You will receive no compensation for your participation in the study.

Participation in this study is entirely voluntary. You do not have to do this, and you can refuse to answer any question or quit at any time. Deciding not to participate or not answering any of the questions will have no effect on any benefits you're entitled to. You can withdraw from this study at any time without penalty. If you have any questions about this research, you may contact either:

- 1) Megan Krone, Doctoral Candidate Email: mkrone@sandiego.edu
- 2) Dr. Christopher Newman, Assistant Professor Email: cnewman@sandiego.edu

I have read and understand this form, and consent to the research it describes to me.

Response options. Yes, No.

Q3. Multiple-Choice Matrix, Single Response

For each of your roles at your current institution, please indicate your status. For roles that do not apply, please leave the box blank. If you hold roles on multiple campuses, please choose the campus where you hold what you would consider your primary role.

Response columns, drop-down menu: part-time, full-time.

Response rows: faculty, non-tenure; faculty, tenure; administrator, professional, or staff, Student Affairs; administrator, professional, or staff, other; graduate assistant, Student Affairs; graduate assistant, other; student, undergraduate; student, masters; student, doctoral; student, other; other.

Q4. Multiple Choice, Single Response

How many years have you been at your current institution? Please include ALL years, including any years as a student, faculty, or staff, part-time or full-time. If you have been at your current institution less than a year, please select "0." If there were gaps in your presence at your current institution, please estimate the number of years excluding the gaps.

Response options, drop-down: whole numbers, 0-50; more than 50 years, please specify.

Q5. Descriptive Text

The next 5 items of this survey relate to your awareness of, reference to, and engagement in your current institution's mental health practices. Practices may have a range of names on specific campuses, so please include practices on your campus that fit general descriptions. If you know of an additional practice, there is an "other" option in each practice with a place to type in additional practices.

Q6. Side-by-Side Matrix, 3 Statements, Single Response

This first group includes practices that target the individual -- practices that help an individual person or encourage an individual person to seek help. If your current campus has additional practices that target individuals, or practices that don't quite fit the description listed, please list those practices under "other." All practices are in-person unless specified that they are online or by phone.

Statements: To the best of my knowledge, this practice is available at my current institution; I have referred a student to this practice at my current institution; I have personally engaged in this practice at my current institution.

Response column options: Yes, no, unsure.

Response rows: One-on-one mental health counseling through a campus counseling center, drop-in counseling hours (e.g. Let's Talk), mental health screening during health center visits, on-campus intensive outpatient counseling program, comprehensive psychiatric emergency program, psychiatric medication reminders, psychiatric advance directives, academic accommodations or supported education for students with mental health disabilities or severe mental illness, mandated disciplinary mental health counseling, forced withdrawal for suicidal students, chronic (collaborative) care model for mental health, mental health counseling for distance learners, early intervention suicide prevention program, online mental health portal, web-based therapy, web-based outreach to at-risk students, web-based suicide risk screening, smartphone / mobile / tablet application for mental health, online mental health courses, animal / pet / canine therapy, other.

Q7. Side-by-Side Matrix, 3 Statements, Single Response

This second group includes practices that target an individual's internal and/or positive mental health -- practices that help an individual person develop healthy habits or encourage an individual person to seek help when needed. If your current campus has additional practices that target individuals, or practices that don't quite fit the description listed, please list those practices under "other." All practices are in-person unless specified that they are online or by phone.

Statements: To the best of my knowledge, this practice is available at my current institution; I have referred a student to this practice at my current institution; I have personally engaged in this practice at my current institution.

Response column options: Yes, no, unsure.

Response rows: mindfulness training, meditation training or meditation therapy, an on-campus walking labyrinth, yoga through the counseling center, resilience training, mood management training, stress management training, wellness coaching, psychosocial wellness training, empathy training, life coaching, other.

Q8. Side-by-Side Matrix, 3 Statements, Single Response

This third group includes practices that target interpersonal relationships -- practices that help people identify signs and symptoms of distress in others and/or encourage others to seek help. If you believe your current campus has additional practices that target relationships, or practices that don't quite fit the descriptions listed, please list those practices under "other." All practices are in-person unless specified that they are online.

Statements: To the best of my knowledge, this practice is available at my current institution; I have referred a student to this practice at my current institution; I have personally engaged in this practice at my current institution.

Response column options: Yes, no, unsure.

Response rows: Couples counseling, gatekeeper training, mental health first aid, QPR (Question, Persuade, Refer) training, peer-to-peer mental health support training, mental health bystander training, suicide prevention training, online peer mental health support training (e.g. Kognito), peer mental health mentors, counselor outreach to faculty and staff, other

Q9. Side-by-Side Matrix, 3 Statements, Single Response

This fourth group includes practices that target campus groups -- practices that work with single groups or collaboration between multiple groups to identify signs and symptoms of distress, better understand mental health and self care, or encourage others to seek help. If you believe your current campus has additional practices that target groups, or practices that do not quite fit the descriptions listed, please list those practices under "other." If you are able to recall, please specify which office(s) or area(s) collaborate with the counseling center.

Statements: To the best of my knowledge, this practice is available at my current institution; I have referred a student to this practice at my current institution; I have personally engaged in this practice at my current institution.

Response column options: Yes, no, unsure.

Response rows: Group therapy; therapeutic, identity-based discussion groups; academic curriculum in mental health promotion for non-mental health-related majors (e.g. first year experience, positive psychology); formal mental health learning community; Active Minds student organization; health center and counseling center integration of electronic records; collaboration between counseling and health services; collaboration between counseling and athletics; collaboration between counseling and academic areas; collaboration between counseling and Student Affairs offices; counseling center outreach to specific populations of students (e.g. veterans, students of color, students identifying as LGBT*, men, students in particular majors), inter-office mental health task force; behavioral concerns team, behavioral intervention team, threat assessment team, etc.; mental health-related case managers; protocols to share information with various stakeholders about students at-risk for suicide; inter-departmental procedures to support students through difficult life events, other

Q10. Side-by-Side Matrix, 3 Statements, Single Response

This fifth (and final) group includes practices that target the entire institution, community, or public -- practices that consider the overall mental health of the institution and/or promote messages about mental health. If you believe your current campus has additional practices that target institutional, community, or public practices, or practices that do not quite fit the descriptions listed, please list those practices under "other." Optional: if you recall the name of the campaign or program, you may enter it in the space provided.

Statements: To the best of my knowledge, this practice is available at my current institution; I have referred a student to this practice at my current institution; I have personally engaged in this practice at my current institution.

Response column options: Yes, no, unsure.

Response rows: On-campus counseling center; integration of health and counseling services (combined/shared location, facility, staff, and resources), collaborative; interdisciplinary systems of mental health care; collaboration with community mental health services and/or advocates; anti-stress / de-stress events, programs, or campaigns; mental health anti-stigma campaign; suicide prevention campaign; mental health social media campaign; mental health stigma training; campus-wide mental health promotion program; campus-wide mental health prevention program; campus-wide suicide prevention program; mental health-themed educational theater; community support meetings following tragic events; active shooter training; participation in the National College Health Assessment, Healthy Minds Study, or another large-scale, national survey that includes items on mental health; other

Q11. Descriptive Text

The following 3 items will ask about your experiences in working with students with mental illness.

Q12. Multiple-choice Matrix, Single Response

Please indicate the extent to which you agree or disagree with each statement. In the following items, "mental illness" is used to encompass any mental, emotional, or personality illness or disorder that can have a clinical diagnosis (e.g. anxiety disorder, major depression, bipolar disorder, schizophrenia, etc.) but may or may not be explicitly diagnosed.

Response column options: Strongly agree, agree, neither agree nor disagree, disagree, strongly disagree

Statements: Students with mental illness often demonstrate behaviors that make them easy to identify. Students with mental illness may have more difficulty gaining admission to a prestigious university than other students. Students with mental illness are less likely to succeed in some majors. Students with mental illness often have trouble taking care of themselves. Students with mental illness may have difficulty making genuine social connections. Students with mental illness are likely to be violent. Students with mental illness are unlikely to recover.

Q13. Multiple-choice Matrix, Single Response

Please indicate the extent to which you agree or disagree with each statement. In the following items, "mental illness" is used to encompass any mental, emotional, or personality illness or disorder that can have a clinical diagnosis (e.g. anxiety disorder, major depression, bipolar disorder, schizophrenia, etc.) but may or may not be explicitly diagnosed.

Response column options: Strongly agree, agree, neither agree nor disagree, disagree, strongly disagree

Statements: Students with mental illness are less academically capable than most other students. Students with mental illness are more difficult to work with than most

other students. Students with mental illness are less likely to achieve meaningful life goals than most other students. Students with mental illness pose a risk to themselves. Students with mental illness pose a risk to others. Students with mental illness often refuse the services available to assist them in managing their illness. Students with mental illness may have more trouble than other students in looking for employment after graduation.

Q14. Multiple-choice Matrix, Single Response

Please indicate the extent to which you agree or disagree with each statement. In the following items, "mental illness" is used to encompass any mental, emotional, or personality illness or disorder that can have a clinical diagnosis (e.g. anxiety disorder, major depression, bipolar disorder, schizophrenia, etc.) but may or may not be explicitly diagnosed.

Response column options: Strongly agree, agree, neither agree nor disagree, disagree, strongly disagree

Statements: Faculty and staff should be informed about any current diagnosis of mental illness for students who are enrolled in their courses or programs. Faculty and staff, outside of the Counseling Office, should be informed as to the types of services a student is seeking for mental illness. Faculty and staff should provide special accommodations in challenging learning environments for students with mental illness. Faculty and staff should have the right to refuse to work with a student who has been diagnosed with a mental illness. Colleges and universities should mandate students displaying signs and symptoms of mental illness to seek professional help. Colleges and universities should prevent or remove students with severe mental illness from living on campus. Colleges and universities should remove students with severe mental illness from their campuses or prevent them from attending.

Q15. Descriptive Text

This section will ask about your role at your current institution. Information provided will only be used in statistical analysis. No identifying information will be analyzed nor shared in any way. All responses will remain anonymous.

Q16. Multiple Choice, Single Response

Please indicate your staffing level. If you have more than one role on your current campus, please select your level for your full-time, Student Affairs role.

Logic. Question displayed only if in Q3, respondent selected one of the following, full-time or part-time in Student Affairs: administrator, professional, staff, or graduate assistant.

Response options: Chief Student Affairs officer, associate vice president, assistant vice president, senior level (director), mid-level (associate director, assistant director), entry level (coordinator, manager), graduate assistant, other.

Q17. Multiple-choice Matrix, Single Response

Below is a list of common Student Affairs offices. Please indicate the office / department / area under which your position falls at your current institution. If your full-time role

includes multiple areas, please select "full-time" for each area. If the title of your area is not listed exactly, please select a related area or select "other" and provide the title of your area. Examples: A graduate student in Greek Life would select "graduate assistant" under "Greek Life" only. A director of Student Activities and Recreation would select "full-time" under "Activities" and "full-time" under "Recreation." Even if you work with other offices or some of your work falls under another category, please indicate only the office in which your position is based.

Logic. Question displayed only if in Q3, respondent selected one of the following, full-time or part-time in Student Affairs: administrator, professional, staff, or graduate assistant.

Response column options, drop-down: graduate assistant, part-time staff, full-time staff.

Response rows: activities, administrative, admissions, adult student resources, athletics, black student resources, career services, communications, commuter student resources, conduct, counseling services, dean of students, development, disability services, drug and alcohol, enrollment management, facilities, family programs, graduate student resources, Greek life, health and wellness, international student services, Latino/a student resources, leadership development / programs, LGBTQAI* resources, marketing, multicultural / diversity / inclusion center, Native American student resources, off-campus student resources, orientation / new student programs, recreation, residence life / housing, service learning / volunteerism, Student Affairs administration, student union, transfer student resources, veteran student resources, women student resources, other.

Q18. Multiple Choice, Single Response

To gather institutional information and analyze institutional diversity, we would like to know the name of your current institution. This information will only be used for statistical analysis. Your responses will remain anonymous. Will you provide us with the name of your institution?

Response options: yes, no, please ask me again at the very end of this survey

Q19. Open-ended

What is the name of your current institution?

Logic: Question displayed only if in Q18 respondent selected "yes."

Logic

If text is entered in Q19, respondents will skip to Q24.

Q20. Multiple Choice, Single Response

Which best describes your current institution?

Response options: 4-year public; 4-year private, non-profit; 4-year private, for-profit; 2-year public; 2-year private, non-profit; 2-year private, for-profit; other; not sure

Q21. Multiple Choice, Single Response

Does your institution have any of the following religious affiliations?

Logic: Question displayed only if in Q20 respondents selected either 4-year private, non-profit or 2-year private, non-profit.

Response options: Baptist, Buddhist, Christian (non-denominational), Episcopal, Islamic, Jewish, Methodist, Presbyterian, Roman Catholic, other, not sure, none of these affiliations.

Q22. Multiple Choice, Single Response

Which best describes the size of your current institution?

Response options: 30,000 or more full-time enrolled students, 10,000 - 29,999 full-time enrolled students, 3000 - 9999 full-time enrolled students, 1000 - 2999 full-time enrolled students, fewer than 1000 full-time enrolled students, not sure

Q23. Multiple Choice, Single Response

Does your institution have any of the following designations?

Response options: Historically Black College or University, Hispanic Serving Institution, Tribal College, other designation, not sure, none of these designations

Q24. Descriptive Text

The following question is to gauge your contact with individuals with mental illness. You will not be asked to identify the individual(s), the specific diagnoses, nor any other details.

Q25. Multiple-choice Matrix, Single Response

To the best of your knowledge, have you or has a family member, a close friend, or a student with whom you have worked closely been diagnosed with any of the following categories of mental illnesses?

Please select "unsure" if you have noticed signs or symptoms of this illness but are unsure if the person has been diagnosed by a clinician.

Response options: anxiety disorder, minor depression, major depression, bipolar disorder, schizophrenia or other psychotic disorders, obsessive-compulsive disorder, trauma or stressor-related disorders, dissociative disorder, somatic symptom disorder, feeding or eating disorder, substance use or addictive disorder, personality disorder (e.g. borderline personality disorder), other

Q26. Descriptive Text

The next 2 questions will be used only to report the statistical demographics of the respondents. They will not be used in any of the analyses or findings apart from reporting general demographic information.

Q27. Multiple Choice, Single Response

What is your gender?

Response options: Male, female, transgender, another gender, prefer not to specify.

Q28. Multiple Choice, Single Response

How do you identify your race / ethnicity? (Please select all that apply.)

Response options: Black, African American, or Afro-Caribbean; Caucasian or Non-Hispanic White; East Asian; Filipino/a; Hispanic or Latino/a; Middle Eastern or Arabic; Native American or Alaskan Native; South Asian; Southeast Asian; Pacific Islander or Native Hawaiian; Two or more races; Another race(s); Prefer not to specify (13)

Q29. Multiple Choice, Single Response

This is the last question of the survey. Would you be willing to specify the name of your current institution?

Logic: Question displayed only if in Q18 respondents selected “please ask me again at the very end of this survey.”

Response options: Yes, no.

Q30. Open ended

What is the name of your current institution?

Logic: Question displayed only if in Q29 respondents selected “yes.”

Q31. Open ended

If you or someone you know needs help, contact your doctor or your campus counseling center.

To learn more about mental health and resources for colleges and universities, the Jed Foundation has a comprehensive website with information and resources specifically for parents, college students, and campus professionals. The Jed Foundation works to promote emotional health and prevent suicide among college and university students, and they provide free access to research, programs, and resources to improve mental health on college campuses. Visit their website here: www.jedfoundation.org For immediate and urgent help, text START to 741-741 or call 1-800-273-TALK.

To contact the researcher, please e-mail Megan Krone at mkrone@sandiego.edu, Dr. Christopher Newman at cnewman@sandiego.edu, or include your question, comment, or concern and your contact information in the comment box below.

Q32. Open ended

The results of this survey will be most useful with a large number of respondents. If you have any colleagues who might be willing to complete this survey, please forward the link or you may type e-mail addresses below. Any e-mails provided will be disconnected from your responses and will only be sent one invitation to participate in this survey.

If you have additional comments, please include them here. Please only include your contact information if you wish to receive a response from the researcher.

Q33. Descriptive Text

Thank you for taking the time to complete this survey. Please click "Next >>" to submit your responses.

APPENDIX K

Frequencies of Practices (n=125)

	Awareness	Referral	Engagement
Active shooter training	80.00%	32.00%	49.60%
Collaboration between counseling and Student Affairs offices	88.80%	35.20%	43.20%
Anti-stress / de-stress events, programs, or campaigns	86.40%	48.00%	33.60%
Inter-departmental procedures to support students through difficult life events	64.00%	30.40%	29.60%
Protocols to share information with various stakeholders about students at-risk for suicide	68.00%	21.60%	28.00%
Suicide prevention training	56.00%	18.40%	21.60%
Community support meetings following tragic events	61.60%	32.00%	20.80%
Campus-wide mental health promotion program	52.80%	24.00%	20.80%
Behavioral concerns team, behavioral intervention team, threat assessment team, etc.	68.80%	30.40%	20.00%
Mental health anti-stigma campaign	47.20%	20.00%	20.00%
On-campus counseling center	96.80%	69.60%	19.20%
Campus-wide suicide prevention program	41.60%	16.80%	18.40%
Integration of health and counseling services (combined/shared location, facility, staff, and resources)	68.00%	34.40%	17.60%
Mindfulness training	57.60%	17.60%	17.60%
Suicide prevention campaign	48.00%	17.60%	17.60%
Counseling center outreach to specific populations of students (e.g. veterans, students of color, students identifying as LGBT*, men, students in particular majors)	68.00%	27.20%	16.00%
Collaboration between counseling and health services	83.20%	27.20%	15.20%
Counselor outreach to faculty and staff	55.20%	14.40%	14.40%
Campus-wide mental health prevention program	38.40%	16.00%	14.40%
Collaboration between counseling and academic areas	51.20%	20.80%	13.60%
One-on-one counseling through the counseling center	99.20%	75.20%	12.80%

Collaboration with community mental health services and/or advocates	61.60%	24.80%	12.80%
QPR (Question, Persuade, Refer) training	28.00%	9.60%	12.80%
Meditation training or meditation therapy	54.40%	18.40%	12.00%
Participation in the National College Health Assessment, Healthy Minds Study, or another large-scale, national survey that includes items on mental health	44.00%	14.40%	12.00%
Mental health bystander training	35.20%	12.00%	11.20%
Collaborative, interdisciplinary systems of mental health care	44.80%	17.60%	10.40%
Early intervention suicide prevention program	64.80%	21.60%	9.60%
Academic curriculum in mental health promotion for non-mental health-related majors (e.g. first year experience, positive psychology)	44.00%	8.80%	9.60%
Mental health social media campaign	24.80%	10.40%	9.60%
Collaboration between counseling and athletics	41.60%	13.60%	8.80%
Inter-office mental health task force	22.40%	8.00%	8.80%
Gatekeeper training	19.20%	6.40%	8.80%
Mental health first aid	31.20%	7.20%	7.20%
Stress management training	71.20%	32.80%	6.40%
An on-campus walking labyrinth	10.40%	4.80%	6.40%
Therapeutic, identity-based discussion groups	48.00%	15.20%	5.60%
Animal / pet / canine therapy	33.60%	16.80%	5.60%
Active Minds student organization	31.20%	10.40%	5.60%
Resilience training	20.80%	7.20%	5.60%
Mental health screening during health center visits	53.60%	20.00%	4.80%
Life coaching	22.40%	6.40%	4.80%
Drop-in counseling hours (e.g. Let's Talk)	69.00%	41.60%	4.00%
Wellness coaching	57.60%	20.80%	4.00%
Mental health-related case managers	29.60%	8.80%	4.00%
Online peer mental health support training (e.g. Kognito)	12.80%	3.20%	4.00%

Mental health stigma training	9.60%	4.00%	4.00%
Online mental health portal	24.80%	7.20%	3.20%
Online mental health courses	15.20%	4.00%	3.20%
Web-based suicide risk screening	12.00%	6.40%	3.20%
Smartphone / mobile / tablet application for mental health	11.20%	2.40%	3.20%
Mental health-themed educational theater	11.20%	4.00%	3.20%
Mood management training	30.40%	12.00%	2.70%
Group therapy	62.40%	22.40%	2.40%
Peer-to-peer mental health support training	43.20%	12.00%	2.40%
Couples counseling	40.00%	10.40%	2.40%
Peer mental health mentors	32.00%	12.80%	2.40%
Web-based outreach to at-risk students	15.20%	8.00%	2.40%
Yoga through the counseling center	15.20%	5.60%	2.40%
Empathy training	14.40%	5.60%	2.40%
Web-based therapy	4%	0.80%	2.40%
Academic accommodations or supported education for students with mental health disabilities or severe mental illness	87.20%	43.20%	1.60%
On-campus intensive outpatient counseling program	29.60%	11.20%	1.60%
Mandated disciplinary mental health counseling	37.60%	12.80%	0.80%
Chronic (collaborative) care model for mental health	32.80%	10.40%	0.80%
Health center and counseling center integration of electronic records	26.40%	6.40%	0.80%
Comprehensive psychiatric emergency program	21.60%	8.00%	0.80%
Formal mental health learning community	9.60%	0.80%	0.80%
Psychosocial wellness training	24.00%	8.00%	0%
Forced withdrawal for suicidal students	12.80%	2.40%	0%
Mental health counseling for distance learners	10.40%	0.80%	0%
Psychiatric advance directives	5.60%	0.80%	0.00%
Psychiatric medication reminders	4.00%	0.80%	0.00%

APPENDIX L

Correlations & T-tests for Practices

	t-test	correlation
Engagement: Gatekeeper training	-3.333***	-0.288***
Referral: Web-based suicide risk screening	-3.065**	-0.266**
Referral: Gatekeeper training	-3.021**	-0.263**
Awareness: Gatekeeper training	-2.966**	-0.258**
Awareness: Web-based suicide risk screening	-2.913**	-0.254**
Engagement: Counselor outreach to faculty and staff	-2.522*	-0.222*
Awareness: Empathy training*	2.356*	0.208*
Engagement: Protocols to share information with various stakeholders about students at-risk for suicide	-2.348*	-0.207*
Referral: Stress management training	-2.313*	-0.204*
Engagement: Peer-to-peer mental health support training	-2.313*	-0.204*
Engagement: Inter-departmental procedures to support students through difficult life events	-2.309*	-0.204*
Referral: Anti-stress / destress programs or campaigns	-2.257*	-0.199*
Referral: Mandated disciplinary mental health counseling	-2.125*	-0.188*
Referral: Early intervention suicide prevention program	-2.109*	-0.187*
Referral: Collaborative, interdisciplinary systems of mental health care	-2.078*	-0.184*
Engagement: Suicide prevention training	-2.06*	-0.183*
Engagement: Empathy training*	2.026*	0.18*
Awareness: Stress management training*	2.021*	0.179*
Engagement: Campus-wide suicide prevention program	-2.002*	-0.178*
Referral: Mental health screening during health center visits	-1.991*	-0.177*
Referral: Counselor outreach to faculty and staff	-1.992*	-0.177*

*Note: *p<0.05; **p<0.01; ***p<0.001

Action Date: August 11, 2015 Note: Approval expires one year after this date.

Action: ☒ Approved ☐ Approved Pending Modification ☐ Not Approved

Note: We send IRB correspondence regarding student research to the faculty advisor, who bears the ultimate responsibility for the conduct of the research. We request that the faculty advisor share this correspondence with the student researcher.

None

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