Entry-level student affairs administrators' attitudes toward mental illness in college students.

Jennifer A. Schum
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ENTRY-LEVEL STUDENT AFFAIRS ADMINISTRATORS’ ATTITUDES TOWARD MENTAL ILLNESS IN COLLEGE STUDENTS

By

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A Dissertation
Submitted to the Faculty of the
College of Education and Human Development of the University of Louisville
in Partial Fulfillment of the Requirements
for the Degree of

Doctor of Philosophy

Department of Educational and Counseling Psychology

University of Louisville

December 2011
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A Dissertation Approved on

July 25, 2011

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DEDICATION

This dissertation is dedicated to Jeff. You are my true companion for a life less ordinary.
ACKNOWLEDGEMENTS

I would first like to thank my parents, Bill and Phyllis Brown, for all of their love and support throughout the years, and for passing on the importance of education and administration.

To my dissertation chair and advisor Dr. Cuyjet, thank you for going above and beyond for all of your students. Thank you also to committee members Drs. Choi, Hirschy, Jackson, and Cunningham for their wonderful insight, time, and guidance.

I wish to acknowledge ACPA for their generous commitment to research on college students and overall leadership of the field of student affairs.

Finally, I would like to thank my colleagues, past and present, at Meredith College and Bellarmine University, as well as my fellow students and faculty of the College Student Personnel master’s and doctoral programs at the University of Louisville. You have shown how it is possible to combine passion, intelligence, and service to others every day.
ABSTRACT

ENTRY-LEVEL STUDENT AFFAIRS ADMINISTRATORS’ ATTITUDES TOWARD MENTAL ILLNESS IN COLLEGE STUDENTS

Jennifer A. Schum

July 25, 2011

Calls for universities to better serve college students with mental illness have been growing. While a considerable literature base supports Corrigan’s (2004) Social Cognitive Model of Mental Illness Stigma and the complex relationship among stereotypes, prejudice, and discrimination, limited research has been conducted examining university administrators on attitudes toward and knowledge of mental illness in college students.

Participants of the current study were 206 entry-level student affairs professionals who completed an online, modified version of Becker, Martin, Wajeeh, Ward, and Shern’s (2002) Mental Illness Awareness Survey. Simultaneous regression was used to determine the significance of seven demographic variables (gender, age, ethnicity, level of education, type of university, university enrollment size, and years of experience) on five dependent variables: fear towards students with mental illness, confidence in ability to help students with mental illness, awareness of campus services, referrals to campus services, and knowledge of psychological disabilities.

None of the five regression models were significant, likely due to a restriction of range in several independent variables in the entry-level study population. Three independent variables were significant at the p < .01 level, including employment at a large
university on fear, and years of experience and possession of a master’s degree on awareness of campus services. Compared to faculty responses on the instrument in an earlier study (Becker et al., 2002), entry-level student affairs professionals demonstrated a trend towards more positive attitudes and knowledge. Findings suggest that administrators desire continued education on mental illness in college students, particularly on disorders including schizophrenia, personality disorders, and paranoia, as well as disorders more commonly seen and/or on the rise in college students such as attention deficit hyperactivity disorder, eating disorders, bipolar disorder, and posttraumatic stress disorder.

Recommendations are offered for graduate preparation programs and professional development workshops. Current study limitations and gaps in the literature can be addressed in future research using broader student affairs populations while examining disclosure in social media, factors related to effective referrals, and student perceptions of discrimination.
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CHAPTER I

INTRODUCTION

Historical Background

A significant proportion of students attending college today have mental illness. Many working within higher education report this population to be on the rise over the past few decades (Benton & Benton, 2006), while others caution that the observed increase could be explained by factors such as better diagnosis, increased acceptance of counseling services, and changes in the preparation of counseling psychologists (Schwartz, 2006). Estimates of the prevalence of mental illness in college students range from a low of 12% (Mowbray et al., 2006) to a high of 50% (Blanco et al., 2008). Rates of mental illness in college students probably mirror levels in the general adult population in the United States. Authors place the annual statistic of adults experiencing psychological disorders from 17% (Manderscheid & Henderson, 2001) to 30% (Kessler et al., 1994). Taken together, estimates of mental illness prevalence suggest that about one in five adults experience a diagnosable disorder at any point in time (Sharpe, Bruininks, Blacklock, Benson, & Johnson, 2004).

Numerous factors are associated with the rise of mental illness in postsecondary students (Kitzrow, 2003). Traditional-aged college students in their late teens through early twenties are especially prone to developing depression, schizophrenia, and bipolar disorders, which typically have onsets during this developmental period. Broad cultural factors—including violence, divorce, drugs, and poverty—influence the development of mental
illness, as do factors specific to college, such as financial worries, competition, and identity development. Improvements in medication have contributed to the de-institutionalization of persons with mental illness (Taylor & Dear, 1981), and mental health treatment has become more acceptable. Most importantly, legislation has increased access for students with psychiatric disabilities (Hawke, 2004). The 1993 Individuals with Disabilities in Education Act (IDEA), formerly known as the Education for all Handicapped Children Act (EAHCA) of 1975; Section 504 of the Rehabilitation Act of 1973; and the Americans with Disabilities Act in 1990 mandate the elimination of discrimination as well as the provision of reasonable accommodations to ensure equal access to educational programs. The outcome of sociocultural, developmental, pharmacological, and legislative factors has been to increase postsecondary enrollment for students with mental illness.

Three administrative areas charged with serving students with mental illness primarily addressed in the literature include university counseling centers, offices of disability services, and senior student affairs officers (SSAOs) or deans of students. Counseling centers have chief responsibility for addressing the needs of college students with mental illness and have been forced to shift the service emphasis from a developmental focus on relationships to addressing stress, depression, and more severe psychopathology (Kitzrow, 2003). Other factors contributing to the change in counseling services include increased overall demand, structural challenges, issues surrounding staff, and legal and ethical concerns (Benton & Benton, 2006). Offices of disability services have also witnessed a sharp increase in requests for accommodations by students with psychiatric disabilities (Sharpe et al., 2004). Unfortunately, offices of disability services are often understaffed and lack sufficient professional development surrounding psychological disorders (Dukes & Shaw, 2004).
Finally, in addition to serving as general advocates for student services and support, SSAOs and deans of students manage critical incidents involving suicidal or other problematic conduct. Unfortunately, students are typically removed from the college too often and easily when mental health is involved (Pavela, 2006).

Although administrators working in counseling, disability, and dean of students offices have tangible roles relative to students with mental illness, the sheer number of matriculating students with psychological issues suggests that all university administrators, regardless of function, will commonly serve and encounter such students. Reynolds (2009) argued that student affairs helpers may actually be among the first to notice troubled students. The “literature clearly suggests that the single most important factor in [working with] students who are at-risk is helping them to feel cared for by the institution” (Heisserer & Parette, 2002, p. 75). The problem lies in the fact that college students with mental illness may not feel particularly welcomed by faculty, administration, and other students.

**Statement of the Problem**

Individuals with mental illness have been treated negatively throughout history with fear, shame, and violence (Fink & Tasman, 1992). Scholars today suggest that in addition to the effects of the illness itself, stigma impedes the success of persons with mental illness (McReynolds & Garske, 2003). Stigma, and the associated prejudice leading to discrimination against persons with mental illness, is a universally-observed phenomenon (Corrigan & Watson, 2002). Unfortunately, “it is still socially acceptable for cartoonists, policy-makers, health-care professionals, and the public at large to mock, stereotype, avoid, and otherwise denigrate people who experience a mental illness” (Wahl, 1999, p. ix).
Discrimination resulting from mental illness stigma pervades individuals’ lives in numerous areas. Employment (Overton & Medina, 2008), housing (Page, 1995), insurance parity (Brown & Bradley, 2002), willingness to seek treatment (Cooper, Corrigan, & Watson, 2003), support from family and friends (Wahl, 1999), attitudes of mental health professionals (Hugo, 2001), the media (Overton & Medina), everyday language (Rose, Thornicroft, Pinfold, & Kassam, 2007), and civil rights (Corrigan, Markowitz, & Watson, 2004) are all impacted by stigma. Additionally, college students with mental illness face additional challenges resulting from a combination of the illness itself and the surrounding stigma. Students with mental illness enroll and persist at lower rates than students without mental illness (Dukes & Shaw, 2004; Kiuhara & Huefner, 2008). Psychopathology also affects academic performance (Quinn, Kahng, & Crocker, 2004; Svanum & Zody, 2001) and self-esteem and self-efficacy (Corrigan & Watson, 2002). Students, in addition to faculty and staff, remain largely unaware of campus resources for mental illness and do not make use of them (Collins & Mowbray, 2005).

Stigma towards mental illness might be expected to be perpetuated among even highly educated university faculty and administrators because of the cultural assumptions of higher education. Scholarly inquiry is based upon Western tenets of reason and scientific observation; the “ability to think and act rationally and in a meaningful fashion has been declared mandatory by public opinion” (Falk, 2001, p. 40). Thus, negative attitudes towards mental illness may persist in a culture partly because of its esteem for reason and purposefulness.

Negative attitudes towards mental illness in college students have been documented primarily using faculty and student populations. A minority of faculty believe students with
mental illness do not belong in college, are dangerous, and make them feel unsafe (Becker, Martin, Wajeeh, Ward, & Shern, 2002). Faculty may also perceive such students are trying to manipulate the system (Kiuhara & Huefner, 2008) and are less intellectually competent (Brockelman, Chadsey, & Loeb, 2006). Further findings indicate that faculty desire additional information about mental illness (Brockelman et al.), as they are not consistently able to recognize mental illness and refer students for help (Becker et al.). In addition to faculty, students possess stigma towards peers with mental illness (Phelan & Basow, 2007). Similar to studies of perceptions in the general population, college students view others with mental illness as dangerous and desire increased social distance.

Attitudes of college administrators toward mental illness have been overlooked in the literature, likely due to several reasons. First, the presence of offices designated to “handle” the concerns of students with mental illness such as counseling and disability services may suggest that mental health issues are not germane to administrators working outside these areas. Second, stigma surrounding mental illness may be so pervasive that administrators may not recognize its presence or believe that it can be improved. Third, modern colleges profess their dedication to educating the whole student—intellectually, spiritually, emotionally, and physically (Kadison & DiGeronimo, 2004; Swaner, 2007)—but the continued emphasis on faculty- and classroom-based intellectual learning over extracurricular learning belies this claim. Fourth, there may be an inherent assumption that those dedicated to student development consistently demonstrate positive attitudes towards students. Research on college students with mental illness tends to focus on faculty, students, and administrators within a few select functional areas while ignoring the larger population of administrators—both academic and student services—on campuses.
Student affairs administrators represent a profession that evolved over the course of the 20th Century in response to changes within American higher education (Nuss, 2003). Numerous factors contributed to the rise of postsecondary administrators responsible for a diverse array of student service functions previously held by faculty, including developments such as: (a) the decrease of the in loco parentis ("in place of parents") philosophy, (b) an increased emphasis on faculty research in the German tradition of higher education, (c) the rise of the concept and importance of the extracurriculum, (d) an increase in type and number of student services (such as mental health services), and (e) a post-war enrollment surge and resulting increase in diversity, among others. Two hallmark commitments that characterize the field of student affairs include the development of the whole person, and the support of diverse academic missions (Nuss, 2003). Despite a dizzying variety of roles and functions within different types and sizes of postsecondary institutions, student affairs administrators share a common belief that their work supports the physical, emotional, social, and spiritual—as well as intellectual—development of college students (American Council on Education, 1937; Keeling, 2006).

Within the field of student affairs professionals, entry-level practitioners present an especially important group to examine with regards to attitudes, beliefs, and knowledge of mental illness, for at least five reasons. Entry-level professionals, by definition, have fewer years’ experience with college students and in the higher education environment to draw upon. These professionals also tend to have high levels of student contact on the “front lines” of service. In addition to reduced levels of experience and high student contact, entry-level professional rate their perceptions of ability on core student affairs competencies as adequate but less than the level demanded for by their current positions (Cuyjet, Longwell-
Grice, & Molina, 2009). Due to the rise of mental health issues in college students and related crises, current practice demands intermediate counseling and helping skills, in contrast to the introductory and clinical therapy-focused courses that typify counseling-based graduate preparation programs (Reynolds, 2009). Fortunately, entry-level practitioners maintain a lifelong learning orientation and eagerly seek out professional development (Renn & Jessup-Anger, 2008), suggesting that improvements in knowledge and attitudes towards college students with mental illness will benefit their work over the long-term.

Given that time and financial resources for professional development of student affairs staff is at a premium, the identification of variables that significantly impact services for students with mental illness would be a welcome addition to the literature base. Of many potential predictors, demographic variables are important to study in relation to mental health stigma to inform the design of anti-stigma campaigns and improve help-seeking behavior (Mojtabai, 2010; Rodgers, 2009). Individuals’ attitudes towards mental illness have been shown to differ by gender (Baumann, 2007; Becker et al., 2002; Capetan, 2000; Rao, 2004; Verzinski, 2006), age (Gould, 2010; Pietrzak, Johnson, Goldstein, Malley, & Southwick, 2009), education (Angermeyer & Dietrich, 2006; Mojtabai, 2010), and ethnicity (Rao, Feinglass, & Corrigan, 2007). Three other variables that characterize the nature of student affairs employment—campus size and type, as well as level of experience in the field—have not been studied but were hypothesized to play a potential role in administrator attitudes towards mental illness in college students.

**Purpose of the Study**
The purpose of this study was to examine demographic predictors of knowledge, attitudes, and comfort in dealing with mental illness among college students using a population of entry-level administrators. More specifically, the following five areas were studied:

1. The extent of negative attitudes and emotions towards mental illness in college students;
2. Confidence in identifying mental illness and ability to help;
3. Knowledge of campus resources and services;
4. Referrals to and consultation with campus resources and services, and
5. Knowledge of psychiatric disabilities.

Theoretical Framework

The theoretical frame for the research questions was Corrigan’s (2004) social cognitive model of mental illness stigma. The theory proposed a complex process of cues, stereotypes, prejudice, and discrimination related to mental illness stigma. For example, a college administrator may be cued to the presence of mental illness in a student by observing certain behaviors or by the student’s own admission of a psychiatric diagnostic label. Then, stereotypes are automatically elicited in the administrator’s thoughts about the category of mental illness. Common stereotypes of individuals with mental illness are that they are inordinately dangerous, unintelligent, weak, childlike, and responsible for their illness (Corrigan & Larson, 2008). The degree to which the administrator endorses the negative stereotypes determines the resulting prejudice, described as the invoking of an emotional component such as fear, disgust, and the desire for social distance (Corrigan, Green, Lundin, Kubiak, & Penn, 2001). Prejudice is a prerequisite to behavior that discriminates against
other persons and associated groups. Thus, the danger of administrators’ negative attitudes is that they are posited to contribute to structural discrimination—the combination of laws, policies, and long-term social structures that discriminate against the mentally ill. Since attitudes of student affairs administrators toward mental illness have not been examined, and Corrigan’s model suggested that the presence of prejudice leads to discrimination, this represented an important area of inquiry within higher education.

**Research Questions**

The following five questions were examined in the population of entry-level student affairs administrators using seven demographic variables: gender, age, ethnicity, level of education, type of university, enrollment size, and years of experience.

1. What demographic variables of administrators significantly predict fear towards students with mental illness?

2. What demographic variables of administrators significantly predict confidence in ability to help students with mental illness?

3. What demographic variables of administrators significantly predict level of awareness of campus mental health and disability services?

4. What demographic variables of administrators significantly predict referrals to campus mental health and disability services?

5. What demographic variables of administrators significantly predict knowledge of psychological disabilities?

**Research Hypotheses**
The hypotheses used for this study were:

H1: There is a significant predictive relationship among the seven demographic variables in entry-level administrators (gender, age, ethnicity, level of education, type of university, enrollment size, and years’ experience) on the dependent variable fear towards students with mental illness.

H2: There is a significant predictive relationship among the seven demographic variables in entry-level administrators (gender, age, ethnicity, level of education, type of university, enrollment size, and years’ experience) on the dependent variable confidence in ability to help students with mental illness.

H3: There is a significant predictive relationship among the seven demographic variables in entry-level administrators (gender, age, ethnicity, level of education, type of university, enrollment size, and years’ experience) on the dependent variable awareness of campus mental health and disability services.

H4: There is a significant predictive relationship among the seven demographic variables in entry-level administrators (gender, age, ethnicity, level of education, type of university, enrollment size, and years’ experience) on the dependent variable referrals to campus mental health and disability services.

H5: There is a significant predictive relationship among the seven demographic variables in entry-level administrators (gender, age, ethnicity, level of education, type of university, enrollment size, and years’ experience) on the dependent variable knowledge of psychological disabilities.

Instrument and Method
The seven demographic predictor variables (gender, age, ethnicity, level of education, type of university, enrollment size, and years' experience) and five criterion variables (fear, confidence in ability to help, awareness of campus services, referrals to campus services, and knowledge of psychological disabilities) were measured using an adaptation of the Mental Illness Awareness Survey created by Becker et al. (2002). For the purposes of the current study, the survey was titled the Student Affairs Mental Illness Awareness Survey (SAMIAS) and consisted of 86 items which required approximately ten minutes to complete.

All entry-level members of the American College Personnel Association (ACPA) were invited by email to complete the SAMIAS. ACPA is a professional association representing the interests of college student affairs administrators. The survey was administered using SurveyMonkey, an online survey administration software program.

**Significance of the Study**

A significant and increasing proportion of college students have psychological disorders, and stigma towards mental illness has been thoroughly demonstrated to impact these students in many negative areas. Falk (2001) noted that even a “hint of mental instability provokes the ‘ultimate stigma’ in American life” (p. 30). Students with mental illness interact with university staff in a large number of extracurricular and service departments, and yet, studies of attitudes by college administrators towards mental illness in college students is limited. While many variables have been examined using populations of postsecondary faculty, staff, and students, administrators have not specifically been studied on: confidence in identifying mental illness and ability to help, knowledge of campus resources, referrals to supportive services, or knowledge of psychological disabilities. Entry-
level professionals present an especially important subgroup to study, since they generally have a high level of interaction with students, fewer years of experience, and have not likely addressed college student mental illness in graduate preparation coursework (Reynolds, 2009). Results from the present study will help campuses respond to calls by a growing number of authors for education of all members of the campus community on issues of mental health (Blanchard, 2007; Loewen, 1993; Kitzrow, 2003; Megivern, Pellerito, & Mowbray, 2003; Mowbray et al., 2006). Since attitudes and biases affect one’s ability to work with students (Reynolds, 2009), the issue of stigma “should be at the top of the list for educators” (Wahl, 1999, p. 154).

Definition of Terms

*Attention Deficit/Hyperactivity Disorder (ADHD)*- “a persistent pattern of inattention and/or hyperactivity-impulsivity that is more frequently displayed and more severe than is typically observed in individuals at a comparable level of development...symptoms must have been present before age 7 years, although many individuals are diagnosed after the symptoms have been present for a number of years. Some impairment from the symptoms must be present in at least two settings...there must be clear evidence of interference with developmentally appropriate social, academic, or occupational functioning” (American Psychiatric Association, 2000, p. 85).

*Anxiety Disorder*- includes Agoraphobia, Social Phobia, Obsessive-Compulsive Disorder, and Generalized Anxiety Disorder, among others. Agoraphobia is “anxiety about, or avoidance of, places or situations from which escape might be difficult (or embarrassing) or in which help might not be available in the event of having a panic attack or panic-like
symptoms” (American Psychiatric Association, 2000, p. 429). Social Phobia is “characterized by clinically significant anxiety provoked by exposure to certain types of social or performance situations, often leading to avoidance behavior” (American Psychiatric Association, 2000, p. 429). Obsessive-Compulsive Disorder is “characterized by obsessions (which cause marked anxiety or distress) and/or by compulsions (which serve to neutralize anxiety)” (American Psychiatric Association, 2000, p. 429). Generalized Anxiety Disorder is characterized by at least 6 months of persistent and excessive anxiety and worry” (American Psychiatric Association, 2000, p. 429).

*Attitude*- a mental position, feeling, or emotion toward a fact or status, as opposed to a behavior, which is an action.

*Bipolar Disorder*- Bipolar Disorder I is characterized by one or more Manic Episodes or Mixed Episodes. A Manic Episode is “a distinct period during which there is an abnormally and persistently elevated, expansive, or irritable mood…[lasting] at least 1 week…accompanied by at least three additional symptoms from a list that includes inflated self-esteem or grandiosity, decreased need for sleep, pressure of speech, slight of ideas, distractibility, increased involvement in goal-directed activities or psychomotor agitation, and excessive involvement in pleasurable activities with a high potential for painful consequences” (American Psychiatric Association, 2000, p. 357). A Mixed episode is “characterized by a period of time (lasting at least 1 week) in which the criteria are met for both a Manic Episode and a Major Depressive Episode (American Psychiatric Association, 2000, p. 362).

*Discrimination*- to differentiate or favor on the basis of a distinguishing feature or membership in a category.
Eating Disorder- "is characterized by severe disturbances in eating behavior and includes two specific diagnoses...Anorexia Nervosa is characterized by a refusal to maintain a minimally normal body weight. Bulimia Nervosa is characterized by repeated episodes of binge eating followed by inappropriate compensatory behaviors such as self-induced vomiting, misuse of laxatives, diuretics, or other medications; fasting; or excessive exercise. A disturbance in perception of body weight is an essential feature of both" (American Psychiatric Association, 2000, p. 583).

Entry-level- student affairs practitioners having worked in the field less than six years, according to self-report on the most recent registration materials for student affairs professional association membership.

Major Depressive Disorder- is characterized by one or more Major Depressive Episodes: "a period of at least 2 weeks during which there is either depressed mood or the loss of interest or pleasure in nearly all activities...at least four symptoms drawn from a list that includes changes in appetite or weight, sleep, and psychomotor activity; decreased energy; feelings of worthlessness or guilt; difficulty thinking, concentrating, or making decisions; or recurrent thoughts of death, suicidal ideation, plans, or attempts. The episode must be accompanied by clinically significant distress or impairment in social, occupational, or other important areas of functioning" (American Psychiatric Association, 2000, p. 349).

Mental illness- "a significant behavioral or psychological syndrome or pattern that occurs in an individual and that is associated with present distress (e.g. a painful symptom) or disability (i.e. impairment in one or more important areas of functioning) or with a significantly increased risk of suffering, death, pain, disability, or an important loss of freedom...not be merely an expected and culturally sanctioned response to a particular
event...[and] must currently be considered a manifestation of a behavioral, psychological, or biological dysfunction in the individual” (American Psychiatric Association, 2000, p. xxxi).

In the present study, the term mental illness includes all disorders of mood, thought, anxiety, substance, and personality listed in the Diagnostic and Statistical Manual. Mental illness, mental disorder, psychological disorder, and psychiatric disability are used interchangeably in the present study.

Paranoia- Persons with paranoia may be diagnosed with Paranoid Personality Disorder or the Paranoid Type of Schizophrenia, among others. The Paranoid Personality Disorder is “a pattern of pervasive distrust and suspiciousness of others such that their motives are interpreted as malevolent. This pattern begins in early adulthood and is present in a variety of contexts” (American Psychiatric Association, 2000, p. 690). The Paranoid Type of Schizophrenia has as the essential feature “the presence of prominent delusions or auditory hallucinations in the context of a relative preservation of cognitive functioning and affect” (American Psychiatric Association, 2000, p. 313).

Personality Disorder- a group of 10 disorders in which each is “an enduring pattern of inner experience, and behavior that differs markedly from the expectations of the individual’s culture, pervasive and inflexible, has an onset in adolescence or early adulthood, stable over time, and leads to distress or impairment” (American Psychiatric Association, 2000, p. 685).

Prejudice- endorsement of negative stereotypes about a group of people resulting in an irrational attitude of hostility.

Posttraumatic Stress Disorder (PTSD)- “Development of characteristic symptoms following exposure to an extreme stressor involving direct personal experience of an event
that involves actual or threatened death or serious injury... The response to the event must involve intense fear, helplessness, or horror... include persistent re-experiencing of the traumatic event... avoidance of stimuli associated with the trauma and numbing of general responsiveness... and persistent symptoms of increased arousal” (American Psychiatric Association, 2000, p. 463).

Schizophrenia- “a mixture of characteristic signs and symptoms (both positive and negative) present for a significant portion of time during a 1-month period... associated with marked social or occupational dysfunction... [involving] a range of cognitive and emotional dysfunctions that include perception, inferential thinking, language and communication, behavioral monitoring, affect, fluency, and production of thought and speech, hedonistic capacity, volition and drive, and attention... Positive symptoms appear to reflect an excess or distortion of normal functions while negative symptoms appear to reflect a diminution or loss of normal functions” (American Psychiatric Association, 2000, p. 298-299).

Stigma- having an “attribute that is deeply discrediting,” and resulting in a change in perception “from a whole, usual person to a tainted, discounted one” (Goffman, 1963, p. 3). The process of stigma involves prejudice, or the degree to which a person agrees with negative beliefs about a person or category of persons, and results in discriminatory behavior (Corrigan & Larson, 2008).

Stereotype- “overgeneralized, largely false beliefs about members of social categories that are frequently, but not always, negative” (Jones et al., 1984, p. 155).

Student affairs administrators- professionals working across various roles and functions in and related to postsecondary education sharing a common belief that their work
supports student learning as well as the physical, emotional, social, spiritual, and intellectual development of college students that occurs primarily beyond the classroom.

Substance abuse- "Substance dependence is a cluster of cognitive, behavioral, and physiological symptoms indicating that the individual continues use of the substance despite significant substance-related problems. There is a pattern of repeated self-administration that can result in tolerance, withdrawal, and compulsive drug-taking behavior...The individual may express a persistent desire to cut down or regulate...there may have been many unsuccessful efforts to decrease or discontinue...The individual may spend a great deal of time obtaining the substance, using the substance, or recovering from its effects...Important social, occupational, or recreational activities may be given up or reduced because of substance use...Despite recognizing the contributing role of the substance [to problems], the person continues to use" (American Psychiatric Association, 2000, p. 192-195).
CHAPTER II
REVIEW OF THE LITERATURE

Overview and Definition

Throughout history, persons with mental illness have been subject to some of the more appalling treatment ever recorded. Fortunately, the past half century has witnessed advances in legislation, medication, research, and treatments that have resulted in significant improvements in the daily lives and long term outlook for such persons. Among these improvements is a reported increase in college enrollment by students experiencing mental illness. Despite this optimistic trend, much work remains to be accomplished to understand this relatively new student population better, the impact of these students upon the college environment (and vice versa), how learning impacts and is impacted by the experience of mental illness, and ultimately, how best to modify traditional models of student services to meet these students’ needs. The present literature review examines studies related to attitudes toward college students with mental illness and is organized into six sections. First, an overview and outline of the literature review are presented, with definitions of mental illness. The second section then reviews the rise of mental illness on college campuses and considers the relationship to student services. Third, historical and present conceptualizations of stigma are reviewed, with outcomes of mental illness for college students. Fourth, research on the student experience of mental illness in higher education is presented, with a specific focus on knowledge and attitudes by faculty, administrators, peers,
and the students themselves. Five, efforts at addressing stigma are reviewed and evaluated. Finally, instruments used to measure mental illness stigma are reviewed.

A discussion of the phenomena of mental illness must necessarily begin with a definition. However, defining mental illness can be subjective. It is noteworthy that even mental health professionals show disparities in diagnosis (Granello & Granello, 2000). Szasz (1974) went so far as to argue that mental illness is merely a social construction to control those who deviate from acceptable social behavior, and thus it is merely a label applied to undesirable people (Jones et al., 1984). Two classification systems used worldwide to classify psychological disorders, the World Health Organization’s (WHO) International Classification of Disease (ICD) system and the American Psychiatric Association’s (APA) Diagnostic and Statistical Manual (DSM), do not offer complete definitions of psychological disorders and lack “a common denominator underlying the various forms of psychological disorders” (Granello & Granello, 2000, p.102). According to the American Psychiatric Association (2000), several aspects lead to a psychiatric diagnosis, including a clinically significant behavioral pattern leading to distress, disability, or potential loss of life function. A practical definition by Souma, Rickerson, and Burgstahler (2001) referred to mental illness as “the collection of all diagnosable mental disorders causing severe disturbances in thinking, feeling, relating, and / or functional behaviors...[that] can result in a substantially diminished capacity to cope with daily life demands” (p. 1). Another, broader conceptualization of mental illness included the collection of behavior, emotions, and cognitions interfering with interpersonal relationships and with work, home, and school (Johnstone, 2001). Most definitions have in common a consideration of the degree to which the disorder, or collection of symptoms, impedes a person’s daily functioning (Overton & Medina, 2008).
The Rise of Mental Illness in College Students

Prevalence of Mental Illness

College students. There exists significant disagreement as to whether the number of college students with mental illness on college campuses in the United States today is on the rise. Most authors suggest that this percentage is increasing at an alarming rate (Benton & Benton, 2006). Benton, Robertson, Tseng, Newton, and Benton (2003) reviewed student-client problems upon intake to the counseling center using a Case Descriptor List. Over a period of 13 years from 1988/89 through 2000/01, clinicians reported an increase in the percentage of students having difficulties in 14 out of 19 problem areas. Therapists noted that students were visiting for more complex problems in recent times and that the number of students seen for suicidal ideation or intent had risen threefold. Similarly, a survey of counseling center directors from 36 institutions revealed that 72% believed that more students in counseling today have a history of treatment than in the past (Bishop, 2002).

Schwartz (2006) refuted the argument that the severity of psychopathology in college students is increasing. Using the Personality Assessment Inventory, Schwartz concluded that the qualitative and quantitative indices of psychopathology in 3,410 counseling center clients over the ten-year period from 1992/93 to 2001/02 remained unchanged. Use of medications had increased fivefold, however. To explain the discrepancy between the data and common perceptions by counseling center staff, Schwartz pointed to changes in the preparation of counseling psychologists away from career and adjustment work towards treatment of more severe personal problems and pathology. Thus, the tendency to see increasing pathology in college students could be due to changes in the perceiver, not the perceived. A study by
Cornish, Riva, Henderson, Kominars, and McIntosh (2000) of 982 students seen in counseling at a small, private, Western university during 1986-1992 suggested that overall stress as measured by the Global Severity Index (GSI) did not significantly increase over time. However, the number of extremely distressed students with GSI scores two standard deviations above the mean did significantly increase over the time period.

Whether the severity of mental illness in college students is increasing or not, the sheer number of postsecondary students experiencing psychopathology is difficult to ignore, and statistics may underestimate actual rates since many students with mental illness do not disclose due to fear of stigma, among other negative outcomes (Mowbray et al., 2006).

According to the U.S. Department of Education’s National Center for Education Statistics (2006), 11% of postsecondary students in 2003-2004 reported the presence of a disability, with 22% of these indicating the presence of a mental health condition. Benton and Benton (2006) characterize the present rates of depression, anxiety, and suicidal ideation on university campuses as an “epidemic” (p. 233). In what is likely the first study to examine a wide range of DSM-IV Axis I and II diagnoses in a nationally-representative sample of college students and their non-college attending peers, almost one-half (45.8%) of college students aged 18-24 were found to have a diagnosable psychological disorder within the prior year (Blanco et al., 2008); this figure was not significantly different from non-college attending young people of the same age group. Interviews with 2,188 college students revealed that 11.9% experienced an anxiety disorder, 10.6% a mood disorder, 29.1% a substance use disorder, and 17.7% a personality disorder. Although half of college students experienced a psychiatric diagnosis, less than one in five of these (18.5%) sought treatment within the past year. While a third of students with mood disorders sought treatment, only
15.9% of students with anxiety disorders did. Most notably, only 5.3% of students with alcohol or drug disorders sought treatment. In a similar web survey by Eisenberg, Golberstein, and Gollust (2007) of 2,785 students, only 28% of students with major depression received any counseling, while 38% of students with anxiety disorders did. Only half of students reported they knew where to go for counseling. These studies of help-seeking in the college student population point to the pervasiveness of psychological disorders, the "substantial unmet need" (Blanco et al., 2008, p. 1435) of mental health treatment, and to the importance of educational and awareness campaigns.

Probably due to the use of narrower diagnostic criteria that did not include personality disorders, earlier studies of mental illness in college students found somewhat lower prevalence rates. Granello and Granello (2000) estimated a mental illness prevalence rate of between 20–39% of college students. Similarly, Kessler, Olfson, and Berglund (1998) suggested that 37% of young adults experience a diagnosable psychiatric disorder. Mowbray et al. (2006) offered a more conservative estimate with a mental illness prevalence rate of 12–18% of college students. Regarding specific diagnoses, findings of the American College Health Association using the National College Health Assessment (NCHA), a 300-question survey administered to a national, random sample, revealed Depression rates of 14.9%, Anxiety at 7.7%, Eating Disorders at 5.7%, and 2.1% with a Substance Disorder (American College Health Association, 2005). Interestingly, collegiate health education efforts reached 49.9% of students with alcohol and drug use prevention, while only 11.4% of students had been the recipient of suicide prevention efforts (American College Health Association). Ten percent of students have seriously considered suicide at some point (Kadison & DiGeronimo, 2004); 40.4% reported taking medication for depression currently or in the past.
Studies using institutional samples reveal rates of psychological disorders similar to national samples and estimates. A survey of almost 1,000 students at a large, Midwestern public university using the Counseling Center Assessment for Psychological Symptoms (CCAPS) revealed similar data to the NCHA (Soet & Sevig, 2006). The top five self-reported diagnoses included Depression (14.9%), Eating Disorders (6.1%), Anxiety (5.9%), Attention Deficit/Hyperactivity Disorder (ADHD) (4.2%), and Post-Traumatic Stress Disorder (PTSD) (3.4%). Other notable diagnoses included Obsessive Compulsive Disorder (OCD) and Social Anxiety (both at 3.2%), Substance Disorder (2.9%), Bipolar Disorder (2.6%), and Psychotic Disorder (1.7%). In addition to psychiatric diagnoses, Soet and Sevig found that 20% of respondents were currently participating in counseling, and 6.8% were taking psychotropic medication. Most distressing was the finding that almost a quarter (23%) of respondents reported having suicidal ideation within the two prior weeks. Taken together, national and institutional surveys of the prevalence of mental illness suggest that anywhere from 20% to 50% of students will experience a psychiatric disorder (Wahl, 1999). The need for continued systematic collection of standardized data on mental illness in college students at the national level was reiterated (Soet & Sevig, 2006).

**General adult population.** The presence of mental illness in the general population of the United States is also widespread. Fifty million Americans, or roughly 17% of the population, will experience a mental illness each year (Brown & Bradley, 2002). Similarly, Sharpe et al. (2004) placed the annual statistic of adults experiencing a psychiatric disorder at 20% of the general population. Kessler et al. (1994) offered a higher estimate. On the National Comorbidity Survey—a structured psychiatric survey—administered to a national probability sample, 30% of 8,098 adults reported the presence of a disorder within a 12-
month period while close to 50% reported the presence of at least one lifetime disorder. Results suggested that the annual and lifetime incidence for psychiatric disorders in the U.S. population was significantly higher than previously assumed (Kessler et al.). Overton and Medina (2008) placed one's lifetime chance of experiencing mental illness at 25%, while as many as 50% of adults on the Kessler et al. survey reported experiencing at least one psychological disorder in their lifetime.

Factors Contributing to the Rise of Mental Illness

Attendance by college students with mental illness has been on the rise for a multitude of reasons. Kitzrow (2003) provides a concise overview of at least five factors contributing to the associated increase in pathology. One, sociocultural factors in present America impact the development of individual mental health, including violence, early risk behaviors, drugs, and family dysfunction. Two, college students, many of whom are in their late teens, are especially prone to developing disorders such as schizophrenia, bipolar disorder, and depression, which have typical age of onsets in late adolescence and early adulthood. Three, recent improvements in medications allow individuals to manage serious symptoms and function at a higher level than in the past. Four, college student psychopathology also reflects problems present in the broader American culture as students cope with competition, financial worries, social fears, and identity development (Kadison & DiGeronimo, 2004). Finally, the perception of rising mental health issues may in fact reflect a greater acceptance of mental health treatment (Kitzrow, 2003).

The United States’ recent participation in Iraq, Afghanistan, and numerous other deployments contributed to an emerging population of veterans enrolling in higher education. In fact, the country is witnessing the largest utilization of reserve troops since the Korean
War (Bauman, 2009). As many as 20-35% of veterans have psychological and social problems after combat, including post-traumatic stress disorder (PTSD), depression, anger, and attention difficulties (Ackerman, DiRamio, & Mitchell, 2009). While women constituted only 14% of the active duty force in 2005, they are more likely than men to experience PTSD after deployment, perhaps due to the higher rates of military sexual trauma or harassment they experience (Baechtold & De Sawai, 2009). One especially troubling outcome of military deployment is the 11-28% of soldiers returning from war with traumatic brain injury (TBI) (DiRamio & Spires, 2009). Resulting from concussive blasts, TBI causes a host of physical, cognitive, and emotional deficits that may not be immediately apparent to the student. Qualitative interviews with 25 student-veterans enrolled at several research universities supported the need for assistance with significant adjustment difficulties and mental health services (Ackerman et al., 2009).

In addition to sociocultural, developmental, and pharmacological factors associated with the increase in postsecondary enrollments by students with mental illness, several key pieces of legislation were pivotal to increase access within this population of students (Hawke, 2004). Students with mental illness, as well as students with disabilities in general, have historically been disenfranchised from postsecondary enrollment. Prior to the 1970s, students with disabilities were denied admission to universities (Paul, 2000). During the 1960s and 1970s, a sweeping effort to move the mentally ill out of institutions and into community care occurred (Taylor & Dear, 1981), drawing opposition from many people unaccustomed to and unfamiliar with persons with mental illness. The earliest legal protection against discrimination was the ratification of the Fourteenth Amendment to the U.S. Constitution in 1868, with its equal protection clause ensuring that states (i.e. public
institutions of higher education) do not deny equal protection to all persons (Hawke, 2004). Unfortunately, Fourteenth Amendment claims against universities place the burden of proof upon the plaintiff. Over time, legislation shifted the locus of responsibility from the person with a disability to the institution which must act proactively to prevent discrimination. With the passage of Section 504 of the Rehabilitation Act of 1973, colleges that receive federal dollars, including most postsecondary institutions, were prohibited from discriminating against otherwise qualified but handicapped persons (Hawke). Institutions were mandated to provide reasonable accommodations to students with disabilities so that they might equally benefit from participation in educational programs. Specifically, “no otherwise qualified individual with a disability…shall, solely by reason of his or her disability, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program receiving Federal financial assistance” (29 U.S.C. Section 794). Later, Congress’ enactment of the Americans with Disabilities Act (ADA) in 1990 provided a mandate for the elimination of discrimination against persons with disabilities across employment, public accommodations, government services, and telecommunications. Core to the Act are definitions of disability and discrimination. Students, including those with mental illness, are considered to have a disability under the following guidelines: “Disability means, with respect to an individual, a physical or mental impairment that substantially limits one or more major life activities of such individual; a record of such impairment; or being regarded as having such an impairment” (28 CFR Section 35.104). Under Section 504 and the ADA, institutions are not required to provide accommodations if the change would create an undue hardship for the college, or would fundamentally alter the program or activity (Hawke, 2004). At the primary and secondary educational levels, the 1993 Individuals with
Disabilities in Education Act (IDEA), formerly known as the Education for all Handicapped Children Act of 1975, requires schools to identify students with disabilities, although postsecondary students are required to self-disclose. Once identified and evaluated, appropriate students are provided services through an Individualized Education Plan (IEP), with all costs assumed by the district (Hawke). Recently in 2008, Congress passed the Americans with Disabilities Act Amendments Act (ADAAA). Effective in early 2009, the Act has potentially long-term implications for higher education by broadening the definition of a qualified disability to include more life activities, episodic conditions, and to disallow the consideration of mitigating measures such as medication (Burke, Friedl, & Rigler, 2010). Due to expanded criteria for a disability, student affairs professionals will be challenged to provide accommodations for a greater number of students with a wider range of disabilities.

Section 504, the ADA, and IDEA combine to provide access for students with disabilities, including mental illness. Yet, despite these mandates spanning four decades, faculty are often unfamiliar with the legislated rights of students with disabilities (Szymanski, Hewitt, Watson, & Swett, 1999).

**Mental Illness and Role of Campus Services**

Two university functions tend to have primary contact with and responsibility for serving the needs of students with mental illness—the counseling center and disability services. As a result, a bulk of the literature on college students with mental illness addresses recent trends and issues within these administrative areas. While the mission and function of these two offices are different, both struggle with adapting services to meet successfully the needs of increasing numbers of college students with mental health issues.
Counseling center. University counseling centers have observed a shift in the nature of their services and have been forced to respond creatively (Beamish, 2005). Whereas in the past, counseling centers tended to address adjustment, career development, and relationships, counseling today focuses on crisis work for stress, anxiety, depression, and more severe psychopathology in general (Benton & Benton, 2006; Kitzrow, 2003; Mowbray et al., 2006). Cooper (2006) outlined four primary factors impacting changes in college counseling services: increased demand, structural challenges, impact on professional staff, and legal/ethical issues.

Counselors must meet the demand to stabilize students coming from an increasingly diverse range of cultures and subpopulations, including students of color; gay, lesbian, bisexual, transsexual, and questioning (GLBTQ) students; international students; athletes; students with eating disorders; and those experiencing dating violence (Cooper, 2006). In addition to serving increasingly diverse students, counselors must adapt to new communication technologies, such as email and cell phones a decade ago, and texting and social media now. Counselors also see a high demand for medication services. Regrettably, documented increases in use have not been matched by increased budgets (Benton & Benton, 2006; Kadison & DiGeronimo, 2004). Counseling centers have responded to tight budgets with service innovations including use of interns, brief therapy models and sessions, phone and/or evening sessions, and referral to community agencies (Kitzrow, 2003).

Cooper (2006) reviewed structural challenges as a second general area impacting the provision of counseling services. Difficulties developing referral networks, along with demand for faculty and staff collaboration and training, usurp precious time available for other important practices, such as assessment and research (Reynolds & Chris, 2008). These
challenges contribute to burnout in counseling staff already conscious of the lack of advancement opportunities and low pay, when compared to private practice (Cooper, 2006). Those counselors who enter administration also note a surprising lack of training or consistent service models to adopt.

Legal and ethical concerns, a fourth factor impacting counseling services, are a continuing undercurrent to counseling services today as staff and administrators are well aware of postsecondary litigation surrounding relatively rare but well-publicized cases of homicide and suicide on American campuses (Cooper, 2006). Counseling centers must balance the collaboration and sharing of student information with other student service areas along with the need to adhere to privacy laws. The Family Educational Rights and Privacy Act (FERPA) is a Federal law enacted in 1974 that prohibits the release of a student’s educational records except to “appropriate officials in cases of health and safety emergencies” (U. S. Department of Education, 2011, para. 5). In addition, the privacy rule of the Health Insurance Portability and Accountability Act (HIPAA) of 1996 requires covered entities such as counselors to protect “individually identifiable personal health information” except for cases of permitted disclosure when “necessary to prevent or lessen a serious and imminent threat to a person or the public, when such disclosure is made to someone [who] can prevent or lessen the threat” (U. S. Department of Health and Human Services, 2011, para. 7). In addition to privacy boundaries, counseling centers are ill-equipped to devote substantial effort to prevention of psychological distress. The recommended ratio of professional counseling staff to student enrollment is 1:1,000-1,500, while the current national average stands at 1:1,969 (Owen & Rodolfa, 2009).
Disability services. Among all categories of disabilities, psychiatric disabilities are the fastest growing subpopulation of college students, constituting a “rising tide” (Eudaly, 2003) and a “new” disability category (Dukes & Shaw, 2004). Nearly one in ten students within higher education has a psychiatric disability, surpassing learning disabilities and attention deficit-hyperactivity disorders (Kiuhara & Huefner, 2008; Sharpe et al., 2004). Corrigan and Watson (2002) suggested that definitive factors contributing to a psychiatric disability are poor skills and low self-efficacy. Psychiatric disabilities are quite unlike other, older categories of disabilities as they are more stigmatized than other disabilities and disenfranchised by higher education (GlenMaye & Bolin, 2007). Additionally, due to such stigma and fear, students with psychiatric disabilities are thus more reluctant to disclose (Collins & Mowbray, 2005). When students do disclose, administrators must adapt ADA requirements to provide reasonable educational accommodations to students with psychiatric needs. Typically, requests to accommodate physical limitations are more straightforward; assistance with psychiatric disorders is challenging (Belch & Marshak, 2006; Kiuhara & Huefner, 2008). Kiuhara and Huefner (2008) crystallize the differences between psychiatric and physical disabilities:

Mental illness is highly complex and idiosyncratic, and managing a psychiatric disability is equally complex. Unlike a physical illness, such as diabetes, mental illness presents no clear pattern of symptoms, treatment, length or degree of severity of episode, and prognosis. (p. 104)

Little attention has been given to the effectiveness of accommodations for psychiatric disabilities, and more generally, to attitudinal barriers to the ADA (Belch, 2004). In a study by GlenMaye and Bolin (2007), 71 social work program directors’ ratings of the perceived effectiveness of accommodations for psychiatric disabilities were associated with the respondent’s level of knowledge about psychiatric disabilities. The participants’ mean rating
of the effectiveness of accommodations in facilitating program completion was $M = 6.78$ on a 10-point scale, with 10 being very effective. More troubling was the finding that over two-thirds of respondents had counseled students with psychiatric disabilities out of the program. Findings by GlenMaye and Bolin suggest ambivalence about the issue of students with psychiatric disabilities and a lack of information on the part of educators.

Unfortunately, disability services staff generally struggle to serve the population of students with psychiatric disabilities (Sharpe et al., 2004). Staff competencies and the structure of disability services combine to create challenges. In a survey of 587 schools, half of all disability service offices are located in offices with additional responsibilities, and staff within these offices report they do not have enough knowledge about psychological disabilities (Collins & Mowbray, 2005). Dukes and Shaw (2004) surveyed 563 directors of disability services and concluded the field lacks significant maturity. Staff must learn "on the job"; half of directors had been in their current job less than five years, one-third possessed less than five years' related experience, and one quarter possessed an "other" educational background outside of special education, counseling, psychology, education, or the like. Notably, almost half of disability services offices did not have a full-time professional in spite of recommendations to do so by the Association on Higher Education and Disability (AHEAD) (Dukes & Shaw, 2004). Disability services professionals are also not informed about community resources for students with mental illness (Sharpe et al., 2004). Finally, there exists a need for clarifying the separate roles, importance, and collaboration between the two offices of counseling and disability services (Collins & Mowbray, 2005), and for disability services offices to do more education of the campus community (Eudaly, 2003).
Due to the combination of the recent influx of students with mental illness and the lack of a mature disability services field to serve them, much of the general literature on disabilities fails to recognize the presence of psychiatric disabilities, even though it may be considered more disabling than other types (Rao, 2004). Just over ten years ago, Malakpa (1997) spoke to university administration’s tepid support of the admission, involvement, and graduation of students with disabilities; students with psychological challenges were not referenced. In Johnson (2000), concrete suggestions for improving the out of class opportunities for students with disabilities centered on environmental adaptations and technology for physical limitations. However, the model for improving the accessibility of campus life activities, including the physical, programmatic, informational, and attitudinal elements, appeared to be relevant for psychiatric disabilities as well.

**Senior Student Affairs Officers/Deans of Students.** In addition to addressing counseling and disability services, literature on college students with mental illness excessively references crises, which may be interpreted to mean harm to self or others. A survey of 62 senior student affairs officers (SSAOs) investigated perceptions of the challenges of handling critical incidents with students with psychiatric disabilities (Belch & Marshak, 2006). SSAOs mentioned the need for improvement in policies, campus resources and linkages, understanding of privacy laws, and collaboration with parents. Additionally, the need for education surrounding bipolar disorder was emphasized, as this was seen as disproportionately related to campus crises. Of course, only a small number of students will be involved in violent acts towards others and most people with mental illness are no more violent than the general population (Phelan & Basow, 2007; Wahl, 1999). Gecker (2007) clarifies that only in extreme and rare cases does mental illness lead to violence. While
senior student affairs officers/deans of students do become centrally involved when student harm to self or others appears likely to occur, these administrators support and advocate for the needs of students with mental illness on a daily basis.

Suicide in college students is probably one of the most important health issues facing administrators (Kitzrow, 2003). Indicators of harm to self are clear situations when privacy laws such as FERPA and HIPAA provide for the release of student information to other parties that can help reduce the likelihood of self-harm. When crises do occur, Hoffman and Mastrianni (1989) cautioned that the typical removal of suicidal or other problematic students from campus tends to be unnecessary, for three reasons. One, suicidal attempts are misunderstood as being due to campus pressures when, in fact, they are most likely due to social problems continuing from the person's past. Two, mental functioning is not all-or-nothing; college students in the throes of significant emotional disturbance usually retain cognitive reasoning. Three, removing a student from campus sets in motion a dangerous, self-fulfilling prophecy whereby the person loses the "student" identity and gains the stigma of the "patient." In addition to being potentially illegal (Pavella, 2006), the automatic removal of students from campus for non-educational or non-behavioral reasons is unethical and contrasts sharply with educational missions that purport to educate the whole student—intellectually, physically, and emotionally (American Council on Education, 1937; Keeling, 2006). Swaner (2007) reasoned that student mental illness is similar to well-being in that it encompasses one's ability to realize potential, cope with stress, relate to others, make healthy decisions, and contribute to the community. It is possible to set reasonable behavioral limits compatible with the therapeutic endeavor by focusing on actions that violate community conduct codes (Benton & Benton, 2006). Schools that have successfully modeled this goal
recognize the limits of “inviting/encouraging” students to get help, identify suicide as an act of violence, mandate assessment (such as a series of four counseling sessions), and maintain a suicide intervention team (Pavela, 2006).

**Other campus services.** Counseling, disability services, and senior student affairs officers, while hugely important, do not constitute the only professionals serving and interacting with college students with psychological disorders. Counseling and disability services may only be accessed by a small portion of students with psychiatric disabilities—as few as 10% in one study (Megivern et al., 2003). Beamish (2005) recognized the need for counseling centers to collaborate with other offices in student affairs and across campuses. For example, university departments of residence life play a significant role in assisting students with mental illness who live on campus. As early as 1985, McLeod, Tercek, and Wisbey documented the efficacy of a program to enhance communication between residence life staff and the counseling center. Planned, ongoing training of residence hall directors by counseling staff resulted in an increase in number and efficiency of referrals to the counseling center. More recent literature surrounding the role of residence halls and mental health issues can be categorized into two primary themes—managing critical incidents with resident students in distress, and offering in-house and/or collaborative programming for resident students. As colleges have witnessed the rise of lawsuits by families of students who have committed or attempted to commit suicide, administrators strive to balance complex and seemingly contradictory aims of “limiting institutional liability [while] balanc[ing] the private interest of their students, the relationship of the school to parents of the students, requirements of due process, and their commitment to antidiscrimination principles” (Wei, 2008, p. 2). Eisen et al. (2009) review a collaborative approach to depression and substance
abuse. In a combined seminar and internship, 22 resident sophomores earned credit for *The History and Biology of Addiction and Depression* course, and afterwards put classroom theory into practice in community and campus internship placements. Participants worked on a campus mental illness anti-stigma campaign, and professors collaborated with residence life staff. The authors noted that course content resulted in student self-reports of meaningful changes in views of mental illness; additionally, several students extended assistance to troubled peers.

Kitzrow (2003) called on all college administrators to respond to the needs of students with mental illness:

> Philosophically, institutions need to adopt the attitude that student mental health is an important and legitimate concern and responsibility of everyone involved in higher education—including *administrators*, faculty, and *staff* ([italics added])—rather than being the sole responsibility of the counseling center. Although student mental health is of particular concern to student affairs and counseling center staff who work closely with students to facilitate their growth and development and address problems, the entire institution has a role in prevention, providing support, and in offering a range of opportunities to enable students to participate in higher education. (p. 175)

In the following sections, stigma as a negative factor in the experience of mental illness, and the associated impact on college students experiencing mental illness, are reviewed.

**Stigma and Discrimination in Mental Illness**

The challenges of having a mental illness represent not only the symptoms of the illness itself, but just as importantly, the attitudes of others and the self toward mental illness. McReynolds and Garske (2003) echoed that "perhaps the greatest barrier for persons with a psychiatric disability...is not the disability, but rather the stigma attached to it by members of
society” (p. 14). For example, one-third more Americans will experience mental illness each year than cardiovascular disease, an illness more readily discussed (Brown & Bradley, 2002). Johnstone (2001) concluded “people suffering from mental illness and other health problems are among the most stigmatized, disadvantaged, and vulnerable members of our society” (p. 21).

**Historical Evidence of Stigma**

The presence of negative attitudes and behavior towards mentally ill persons has been a common thread throughout history. In Ancient Greece from the 5th Century BC to the 2nd Century AD, mental illness was viewed with a sense of shame and pollution that persists to this day (Simon, 1992). The Greek noun *stigma* connotes the making of a mark or a mark, and was used in a wide sense to indicate religion, ownership, or decorative tattooing. The term stigma did not possess the negative associations it does today. During Ancient Greece, however, those with psychological disorders suffered humiliation and were often shunned, locked up, or sometimes, put to death (Simon, 1992). During the Medieval and Renaissance periods, negative treatment of the mentally ill was reduced, as abnormal behavior was considered part of the Divine plan (Mora, 1992). Disturbed persons were treated with relative tolerance, and illness was attributed to unbalanced bodily humors. Soon after, the Reformation, with its emphasis on religious guilt and search for a scapegoat, brought about witch mania and the condemnation of the mentally ill (Mora, 1992). By the early 19th Century in Europe and the United States, advances in medical knowledge fostered the acceptance of moral treatment through non-restraint (Brizendine, 1992). Asylum hospitals were thus created to house and treat the mentally ill. While conditions were certainly overcrowded and substandard, physicians kept detailed notes on patients, which allowed
them to compare treatment efficacies through a newly-created scholarly journal, *The Asylum Journal* (Brizendine, 1992). During the 19th Century, immigrants arriving in America at Ellis Island determined to be mentally ill were turned back (Overton & Medina, 2008).

Throughout the history of the United States, Christians have demonstrated ambivalence towards persons who are mentally ill (Dain, 1992). Those who equate insanity with sin on the one hand also believe in exceptions, primarily for those of upper socioeconomic status (Dain, 1992).

**Conceptualizations of Stigma**

Before reviewing stigma theory, it is important to note the presence of two contrasting views in the research—some accept stigma as an important psychosocial phenomenon, while others minimize its presence. The primary arguments against stigma suggest that, one, the bulk of research on public attitudes invokes acceptance, and two, when rejection occurs against the mentally ill, it results from disturbing behavior, not stigma (Fink & Tasman, 1992). But, Fink and Tasman point to two types of studies that support the presence of stigma. Surveys that compare responses between the “ideal person”, “self”, and “most people” result in negative, rejecting responses toward the mentally ill. Also, when studies attempt to have participants respond as if personally involved, social desirability is lessened. Due to what they view as overwhelming support for the presence of stigma, the authors conclude that the question of whether stigma exists can be put aside.

Writers on stigma over the past century emphasize various sociological and psychological aspects of the experience, including its function in the community, impact upon the social identity of the stigmatized, dimensions and components, cultural basis, and most recently, the social-psychological process occurring within the stigmatizer and the
larger society. Some of the earliest writings on stigma by Durkheim (1964) emphasize the role and function of a group of individuals who carry a stigma and are termed deviant. Others in the community organize against the threats posed by the stigmatized against the morality and general social order. Thus, the stigmatization of deviance creates a boundary that ultimately functions to enhance group solidarity.

In the mid-20th Century, sociologists writing on stigma emphasized the “spoiled social identity” arising from interactions with others (Goffman, 1963) Stigma is defined by Goffman as having an “attribute that is deeply discrediting,” which results in a change in perception “from a whole, usual person to a tainted, discounted one” (1963, p. 3). Stigma naturally results in shame, with additional “courtesy stigma” spreading to the person’s close connections, such as friends and family. Goffman described the processes underlying prejudice: “in social situations with a stigmatized individual, we are likely to employ categorizations that do not fit” (1963, p. 14).

Goffman influenced later prominent authors on stigma. Jones et al. (1984) defined stigmatization as “an extreme form of categorical inferences, whereby some clue regarding membership, some physical mark, or some bit of observed or reported deviant behavior gives rise to drastic attributional outcomes” (p. 295). Jones et al. differentiated among different stigma “marks”, or targets of discrimination, by outlining six dimensions of stigma, including its concealability, course over time, disruptiveness in hampering social communication, aesthetic qualities (e.g. degree of ugliness, repellant qualities), origin (i.e. how responsible the person is deemed to be for the situation), and peril (i.e. danger implied). Within the literature, at least three frames of reference exist to explain the process of stereotyping and stigma (Jones et al.) The sociocultural perspective assumes that beliefs about stigmatized
groups are transmitted through the media, parents, and other agents of socialization. The motivational perspective is psychodynamic in its assumption that stigma is related to the internal conflicts and needs of the individual belief holder. Motivational explanations fit with the “just world” belief that we have a need to believe the world is orderly, safe, and predictable (Jones et al.). Finally, the cognitive perspective uses knowledge about human information processing to explain judgment, illusory correlations, role-taking, and other cognitive processes within social interaction.

In response to criticisms by some that conceptualizations of stigma focus on the cognitions of the stigmatizer and place the blame on the stigmatized, Link and Phelan (2001) defined a process of stigma characterized by several, broad components:

In the first component, people distinguish and label human differences. In the second, dominant cultural beliefs link labeled persons to undesirable characteristics—to negative stereotypes. In the third, labeled persons are placed in distinct categories so as to accomplish some degree of separation of ‘us’ from ‘them.’ In the fourth, labeled persons experience status loss and discrimination that lead to unequal outcomes. (p. 367)

Compared to other models of stigma, Link and Phelan's conceptualization suggested that the process is entirely maintained upon power differentials.

In addition to socio- and psychological foundations, cultural factors form a basis for the presence of stigma in America as well. The Protestant work ethic, present since the settlement and founding of the United States in the 17th and 18th centuries, respectively, is a core value in our society and a “basis for stigmatization in America” (Falk, 2001, p. 333). The Protestant (or Puritan) ethic centers on the rugged individualism forged on the frontier that upholds success resulting from hard work. A lack of success, then, implies self-indulgence and moral depravity (Falk, 2001; Wahl, 1999). Consequently, mental illness is stigmatized because of such persons’ lack of ability to overcome personal weakness.
However, with the increasing ethnic diversification in America, the core values of the Protestant ethic are weakening.

**Social Cognitive Model of Mental Illness Stigma**

Corrigan's (2004) recent social cognitive model of mental illness stigma involves a complex process of cues, stereotypes, prejudice, and discrimination. This theory is used as a frame for the current study due to its comprehensive nature, pervasiveness across current research, and applicability. The cogent model incorporates cognitive, affective, and behavioral components, and is initiated when cues indicate in some manner that a person is different than others (Corrigan, 2004). Cues may include some observable behavior or knowledge of a psychiatric diagnosis label. As would be expected, certain psychiatric labels are more stigmatizing than others (Overton & Medina, 2008).

Figure 1 illustrates the relationship between the primary elements of stereotypes, prejudice, and discrimination in the public version of Corrigan's Social Cognitive Theory of Mental Illness Stigma (Corrigan, 2004; Corrigan et al., 2001; Corrigan & Larson, 2008; Corrigan & Rusch, 2002).

*Figure 1. Corrigan’s Social Cognitive Theory of Public Mental Illness Stigma.*
Once a person has been cued, *stereotypes* are automatically activated next within the thought processes. Jones et al. (1984) defined stereotypes as “overgeneralized, largely false beliefs about members of social categories that are frequently, but not always, negative” (p. 155). Stereotypes are thus primarily cognitive in nature and are knowledge schemas learned by members of a social group used to categorize individuals (Corrigan, 2004). According to an early definition, stereotypes are the pictures in our heads that we hold of others (Lippman, 1922). Classifying into categories reduces the inherent complexity of social interactions (Baumann, 2007). Typical, negative stereotypes about persons with mental illness are that they are dangerous, unintelligent, dirty, weak, immoral, and responsible for their illness and thus blameworthy (Fink & Tasman, 1992; Corrigan, Markowitz, Watson, Rowan, & Kubiak, 2003; Corrigan & Larson, 2008). Certainly, many stereotypes hold a “kernel of truth” in that some persons with mental illness are more violent, yet on the whole, men and young adults are three-to-six times more likely to be violent than people with mental illness (Corrigan, Watson, Byrne, & Davis, 2005). People also may hold common stereotypes about a group of people without personally endorsing them. However, many citizens in the United States and around the world do endorse stigmatizing attitudes toward mental illness (Corrigan & Watson, 2002).

*Prejudice* occurs when a person agrees with the negative stereotypes about a group of people (Corrigan, 2004). Unlike stereotyping, prejudice invokes an emotional component; prejudice to mental illness commonly results in reflexive reactions of fear, anger, and disgust. Most people are ambivalent in their disposition towards the mentally ill, simultaneously endorsing positive and negative attitudes, with more open expression of the positive (Jones et
al., 1984). However, a distinction must be drawn between the ambivalent versus the concealment of uniformly negative attitudes.

Ultimately, prejudice leads to discrimination. *Discrimination* is the behavioral expression resulting from strong emotions generated by prejudice (Corrigan, 2004). Social distance and avoidance are typical discriminatory behaviors toward the mentally ill. Persons with mental illness are thus treated as strangers, with rigid borders created between categories of “us” and “them” (Baumann, 2007). In general, people engage in stigmatization due to ego or for group enhancement (Corrigan, 2004).

Corrigan (2005) also differentiated between public- and self-stigma. In both forms, the process of stereotypes, prejudice and discrimination are present. In *self-stigma*, the negative beliefs about mental illness apply to the self, and the degree to which the person endorses these beliefs determines behavioral reactions, commonly including loss of self-esteem, self-efficacy, and confidence in one’s future (Corrigan, 2005). However, individual responses to the perception of stigma vary. Some experience a loss of self-esteem, others become angry and energized in response to prejudice, while still others experience neither reaction and seem to be able to ignore the prejudicial attitudes (Corrigan & Watson, 2002). Alternatively, *public stigma* results in structural discrimination, evidenced by institutional policies and social structures. The prejudice of institutional leaders leads to the direct creation of discriminatory laws and policies, while discriminatory social structures are the long-term historical, political, and economic effects of prejudice (Corrigan, 2005).

In a study of 208 community college students, the relationship between stereotypes, prejudice, and discrimination was upheld (Corrigan et al., 2001). Participants completed measures of familiarity, perception of dangerousness, fear, and social distance. Data
supported a path model that greater familiarity with mental illness was associated with reduced perceptions of dangerousness and fear, and ultimately, a reduction in discrimination evidenced by social distance:

Members of the general public who have greater knowledge about or experience with mental illness are less likely to stigmatize, at least in terms of stereotypes of dangerousness. Moreover, these individuals are less likely to discriminate against persons who have serious mental illness by avoiding them. (p. 956)

**Research on Stigma of Mental Illness**

**Mental health literacy.** Research consistently demonstrates the relationship between a lack of knowledge about mental illness, the presence of negative attitudes, and resulting fear (Angermeyer & Matschinger, 1996). In the general public, the average person’s knowledge of mental illness, sometimes termed “mental health literacy” (Goldney, Fisher, & Wilson, 2001; Jorm & Kelly, 2007) is meager (Thornicroft, Rose, Kassam, & Sartorius, 2007) to grossly misinformed (Granello & Granello, 2000). In an Australian survey of 3010 people, there was a considerable lack of ability to recognize depression; the mental health literacy in those even having had the diagnosis was non-distinguishable from those who had not experienced depression (Goldney et al., 2001).

**Prejudice.** In a comprehensive review of population studies on attitudes toward people with mental illness from 1990 to 2004, Angermeyer and Dietrich (2006) concluded that misconceptions about people with mental illness as unpredictable, violent, and dangerous still prevail, and that such persons are considered more dangerous than they were 50 years ago. Reactions toward mental illness commonly include feelings of uneasiness and uncertainty (Angermeyer & Dietrich). Prejudice contributes to a discriminatory response of social distancing, understood as an aloofness and diffuse fear (Baumann, 2007). Taken together, research suggests that blame for mental illness is associated with greater approval
of discrimination. In general, research on the topic has tended to focus on depression and schizophrenia disorders, has been mainly descriptive and non-theory-based, and has not addressed the important linkage between attitudes and actual discriminatory behavior.

**Discrimination.** In addition to fear and social distance, discrimination negatively impacts the lives of persons with mental disorders in innumerable ways. While qualitative interviews with 46 community mental health consumers in England indicated some persons experience positive outcomes—including improved knowledge of self, wisdom, and the opportunity to have met people—subjective feelings of stigma as well as overt discrimination were two common themes in their lives (Dinos, Stevens, Serfaty, Weich, & King, 2004). Structural discrimination, the effect of keeping those with mental illness in insubordinate positions and the result of historical trends (Corrigan & Larson, 2008) is evident in as many as eight general areas, including employment, housing, insurance, treatment usage, attitudes of family, friends, and professionals; media, language, and legal rights. Corrigan et al. (2004) note that structural discrimination often occurs on a macro level, making it important to differentiate between intentional and unintentional harm when looking at individual instances.

Stigma is present in the workplace, housing, and insurance industries. On the job, discrimination due to mental illness is exemplified by reduced employment rates, underemployment, and lack of ADA implementation; employers assume employees with mental illness may be more unreliable (Overton & Medina, 2008). Similarly, landlords are more unwilling to lease apartments to persons known to have mental illness (Page, 1995). The historical lack of parity between insurance benefits for mental and physical illnesses represents a fundamental example of discrimination due to stigma (Brown & Bradley, 2002).
Stigma also results in reduced rates of treatment-seeking by mental health consumers. The public views persons in therapy and those labeled as mentally ill as similar to each other but very different from those who are not mentally ill (Slavet, Parker, Kitowicz, & MacDonald, 2000). Treatment for mental illness could therefore be considered the exception rather than the rule (Kisch, Leino, & Silverman, 2005). Over half of people who could benefit from treatment do not seek it (Cooper et al., 2003; Sharp, Hargrove, Johnson, & Deal, 2006), and of those who seek help, those with the greatest distress at intake tend to stop prematurely (Lucas & Berkel, 2005). This may also be partly explained by Weiner’s (1995) attribution model—people who feel blamed for their mental illness and not deserving of help thus try to overcome it on their own, despite the overwhelming evidence of the efficacy of psychotherapy (Sharp et al., 2006). In a health survey of almost 16,000 college students, less than 20% of those who reported suicidal ideation or attempts were receiving treatment (Kisch et al., 2005). Leong and Zachar (1999) studied opinions towards mental illness and health-seeking attitudes in 290 college students and found women are consistently more open to seeking help. Also, positive help-seeking attitudes are associated with attitudes toward mental illness that are more benevolent, less authoritarian, and less socially restrictive. Nickerson, Helms, and Terrell’s (1994) study using 105 Black college students reveals that Blacks’ level of cultural mistrust of Whites is associated with more negative attitudes about help-seeking from clinics predominantly staffed by Whites, and that expectations about services from the Whites are less satisfactory.

Mental health professionals and family members demonstrate many of the same negative attitudes toward mental illness as members of the general population. In a survey of 266 mental health professionals, participants were less optimistic about the progress and
long-term outcomes for persons with mental illness than the general public (Hugo, 2001). The professionals also rated the level of discrimination experienced by those with mental illness as higher than ratings by the public. The caution in this finding is that when individuals with mental illness do find their way to treatment, they are likely to encounter professionals whose beliefs may be biased due to the large numbers of unwell clients they encounter. In addition to providers of mental health services, people with mental illness also face a lack of support from family and friends (Wahl, 1999).

Media and language perpetuate stereotypes of mental illness. Forms of electronic and print media are powerful agents to dispel stigma surrounding mental illness, but it appears media continues to present and endorse harmful two-dimensional and dangerous characters (Kuruppuarachchi, 2003; Overton & Medina, 2008). Unfortunately, media aimed at children also present violent and criminal images of mental illness, contributing to established attitudes of stigma in young children (Wahl, 2003). Expressions referencing mental illness in common English language indicate that this is perhaps the only population about which it is still acceptable to use discriminatory language. A study of 400 fourteen-year-old schoolchildren in England revealed that they used over 250 labels to refer to people with mental illness (Rose et al., 2007). A qualitative analysis of common categories for the terms included derogatory terms, negative emotional states, confusion between mental, physical, and learning disabilities, and terms related to violence.

Finally, legal rights of persons with mental disorders are unfairly restricted due to a presumed incompetence (Corrigan et al., 2004). In 1999, between one-third and one-half of all states restricted the civil rights of persons with mental illness to vote, hold elective office, serve on jury duty, parent, and remain married. More sobering is the notion that state laws
are far more restrictive for persons with mental illness than those deemed legally incompetent. As Corrigan et al. clarify, predictions are thus made on vague notions and labels rather than demonstrable behavior.

**Challenges for College Students with Mental Illness**

In addition to these negative outcomes resulting from the impact of stigma, college students with psychiatric disorders face a host of specific challenges related to retention, academic and social performance, side effects of medication, and the effects of the disorder itself. Enrollment, extracurricular involvement, and persistence are all impacted by the presence of mental illness. In general, college students with disabilities enroll at lower rates than students without; 63% of high school students with disabilities enter postsecondary education compared to 72% of students without disabilities (Dukes & Shaw, 2004). Other indicators are even less positive, with estimates of only 37% of students with disabilities enrolling in higher education, compared to 78% of students without a disability (Belch, 2004). The likelihood of earning a college degree is decreased by the presence of a disability, such that in 2000, only 12% of the population of persons with a disability had graduated from college (Belch, 2004). Attrition rates in college students with mental illness are significantly greater than students without, but definitive rates can be difficult to quantify. Kiuhara and Huefner (2008) note that 86% of college students with psychiatric disabilities leave college early, and it is similarly recognized that major causes of first year attrition are emotional in nature (Sharp et al., 2006). In a study of 2,365 students who sought counseling within a five-year timeframe at a moderate-sized, Western public university, one in five had seriously considered withdrawal, yet students in counseling demonstrated an annual retention rate of 70.9%, compared to only 58.6% in the general population (Turner & Berry, 2000).
Improved retention rates (but not academic performance) of students who seek counseling was also demonstrated in a sample of 10,009 college freshmen and transfer students in a study by Lee, Olson, Locke, Michelson, and Odes (2009). Overall, 5% of college students prematurely withdraw due to emotional issues (Kadison & DiGeronimo, 2004). While cocurricular involvement is known to impact learning (Astin, 1984), fewer students with disabilities appear to be involved in extracurricular activities (Belch, 2000; Belch, 2004).

Grades are impacted by the presence of psychopathology. In a qualitative study of 35 individuals with psychiatric disorders, Megivern et al. (2003) found that symptoms of mental illness affect academic performance, and ultimately, the ability to remain enrolled. Robertson et al. (2006) determined that mood difficulties account for 25% of the variance in learning and academic problems. However, psychopathology has a heterogeneous impact on grades. Svanum and Zody (2001) administered several established measures of psychopathology to 412 college students to compare semester GPA of students meeting criteria for substance abuse, depression, or anxiety disorder with those who did not. Results revealed a negative association between substance abuse and semester GPA, a positive association between anxiety disorders and semester GPA, and no association between depression and semester GPA. A more recent study of 164 college students comparing levels of depression as measured by the Beck Depression Inventory-2 and cumulative GPA did find a significant, negative association between depression and academic performance (Deroma, Leach, & Leverett, 2009). The experience of having to reveal one’s illness to faculty also impacts academic performance. In one study, college students who had to reveal their mental health history performed worse on an objective reasoning test (Quinn et al., 2004). It may be
that the discomfort of stigma harms performance as the student becomes more concerned about proving him or herself competent.

Students with psychiatric disorders may struggle with any numbers of difficulties directly related to their illness, such as concentrating, screening stimuli, maintaining stamina, managing time and multitasking, responding to negative feedback and/or change, handling test anxiety, and relating to others (Souma et al., 2001; Soydan, 1997). In addition to the impact of symptoms of the disorder, side effects from psychoactive medications can alter functioning (Souma et al., 2001). College women, especially, appear to be at heightened risk for increased alcohol consumption as a means of coping with negative emotional states (LaBrie, Kenney, Lac, Garcia, & Ferraiolo, 2009).

Faculty, staff and students lack knowledge about available campus support services, and often necessary services do not exist or are not accessed by students with mental illness (Becker et al., 2002; Collins & Mowbray, 2005). When services are accessed, a lack of coordination among campus service providers hinders progress. The absence of collaboration can be attributed in large part to students’ lack of uniform disclosure across offices, which is in turn influenced by the presence of stigma surrounding mental illness and to the need to protect confidentiality (Belch & Marshak, 2006).

**Attitudes Toward Mental Illness in Higher Education**

**University Message**

In addition to the impact of the disorder and the lack of service coordination across campus services, students with psychological issues are hindered by the presence of negative attitudes toward mental illness by other faculty, staff, and students; this is evidenced early in
the matriculation process. For example, during admission and orientation, colleges overwhelm new campus members with information about physical health services but are relatively silent on mental health (Becker et al., 2002). Silence on mental illness may be especially noticeable at historically Black colleges, where students of color may be especially reluctant to seek mental health treatment and tend to opt for a more spiritual approach (Brent, Cornish, Leslie-Toogood, Nadkarni, & Schreier, 2006; Nealy, 2007). This silence is particularly unfortunate with a population of students wherein cultural bias and low socioeconomic status compound the effects of mental illness. The potential for support may be bleaker still for GLBTQ students who are merely “tolerated” (Brent et al., 2006). In essence, colleges act as if students do not suffer from mental illness (Berman, Strauss, & Verhage, 2000; Mowbray et al., 2006).

Attitudes Toward Mental Illness

Faculty. Negative attitudes about mental illness are present to a small but significant degree in college faculty. A survey of 315 faculty and 1,901 students using the Mental Illness Awareness Survey (MIAS) at an urban university in the southern United States highlighted the need for attitudinal change and education about mental illness and available resources in college students (Becker et al., 2002). The percentage of 315 faculty who responded “rarely” or “never” to the following statements were as follows: students with mental illness are considered disabled and eligible for ADA benefits (42%), students with mental illness can succeed in my class/in college (19%), mental illnesses are genetically transmitted (33.3%), I am able to determine if a student has a mental illness (55.4%), I am able/would try to convince student with mental illness to seek help with university counseling (37.3%) or outside the university (49.1%), and I am able to discuss concerns with
student who shows signs of mental illness (32.8%). More disturbing are the percentages, albeit smaller, of faculty who strongly agreed or agreed with the following statements: students with mental illness should not be allowed to attend classes (5%), would not feel safe in the classroom in the presence of student with mental illness (13%), and students with mental illness are dangerous to have in the classroom (8%). Clearly, a proportion of faculty believe students with mental illness do not qualify under ADA, cannot succeed, are not genetically predisposed (i.e. may be “responsible” for their condition), and cannot be identified. Additionally, at least one third would not refer such students for help within or outside the university, or discuss their concerns with the student. That even a small percentage of faculty believe students with mental illness should not be in college, are dangerous, and make them feel unsafe is an important finding. Instructors lacking knowledge may not comprehend that mental illnesses are largely treatable, controllable, and not to be feared (Eudaly, 2003). Professors may also believe that students are trying to manipulate the system (Kiuhara & Huefner, 2008). Such studies are in contrast with the recommendation that all professors should know how to spot problems and refer such students for help (Berman et al., 2000).

A subsequent study of 115 faculty perceptions of students with psychiatric disabilities using an adaptation of the MIAS (Brockelman et al., 2006) revealed that many felt they did not have adequate knowledge about mental illness and desired information about resources. Level of comfort was related to confidence in faculty’s ability to help college students with mental illness. Similar to population studies, level of personal experience and contact with mental illness were related to more positive attitudes towards mental illness. Unfortunately, faculty regarded students with a history of counseling as less competent than students.
without such a history. Thus, students who choose to disclose their disorder to faculty may experience negative responses (Brockleman et al., 2006). Faculty were also more comfortable with students in structured settings such as the classroom; future studies need to examine the role of environment on levels of comfort around college students with mental illness.

Studies of faculty attitudes by Becker et al. (2002) and Brockelman et al. (2006) echo earlier findings by Backels and Wheeler (2001) on faculty perceptions of mental health issues in college students at a public Eastern university. One hundred and thirteen faculty completed a survey investigating effects of mental illness on academic performance, flexibility extended to such students, and likelihood of referral to counseling. Results suggested that faculty may not perceive the need for flexibility and referral to counseling for non-crisis mental health issues (Backels & Wheeler, 2001).

In addition to the few studies which have directly examined faculty attitudes toward college students with mental illness, several studies in North America have also demonstrated that, compared to other disability categories, faculty attitudes toward those with psychiatric disorders are more negative (Hindes & Mather, 2007; Wolman, McCrink, Rodriguez, & Harris-Looby, 2004). In faculty populations at U.S. and Mexican universities, faculty were less willing to accommodate emotional disabilities than learning disabilities or limitations from deafness or blindness (Wolman et al., 2004). Similarly, Hindes and Mather’s sample of Canadian faculty suggested that students with “sensory, motor, and language disabilities may be less stigmatized” (2007, p. 117), further augmenting findings by Becker et al. (2002) and Brockelman et al. (2006) that a proportion of faculty at
postsecondary institutions believe college may not be appropriate for students with psychiatric disabilities.

**College student peers.** Research on peer attitudes also demonstrates the presence of stigma. After reading scenarios depicting depression, alcohol abuse, and stress, 168 college students who labeled the presence of mental illness were more likely to view that person as dangerous and to desire social distance (Phelan & Basow, 2007). Those students who possessed more familiarity with mental illness showed fewer negative stereotypes, though, and a greater degree of empathy was associated with decreased social distance.

Students are highly unlikely to refer peers in distress to the campus counseling center, instead preferring to consult with friends or, sometimes, family (Sharkin, Plageman, & Mangold, 2003). An overwhelming 94% of a sample of 136 undergraduates did not contact counseling services on behalf of a friend because they believed their friends’ concerns were not serious enough or would get them into trouble, and reasoned that it was unlikely their friend would go.

**Self-perceptions.** College students’ self esteem and self-efficacy are impacted by the stigma of mental illness. Self esteem involves feelings of self-worth, while self-efficacy has been defined as “an expectation that one can successfully perform a behavior in a specific situation” (Corrigan & Watson, 2002, p. 38). People understand that others devalue and discriminate against those with mental illness, and when one is labeled with a diagnosis, it leads to self-devaluation (Link, Struening, Neese-Todd, Asmussen, & Phelan, 2001). Self-esteem, sense of mattering to others, and gender account for 39.4% of the variance in depression (Dixon & Kurpius, 2008). Brockelman (2009) documented the significant relationship between mental illness and self-determination, a related concept, in college
students. Link (1987) went so far as to characterize the magnitude of the relationship between stigma and self-esteem in individuals with mental illness as disturbing. It is little wonder that when students struggle with mental illness, the presence of typical beliefs that he or she simply needs to try harder (Eudaly, 2003) leads to negative feelings.

**Administrators.** Limited research has been conducted on college staff and administrator attitudes about mental illness, perhaps due to the fact that, outside counseling and disability services, offices of student services rarely purport to serve or address students with mental illness (Becker et al., 2002). In a review of the needs of students with psychiatric disabilities in Canadian British Columbia, Loewen (1993) found a lack of awareness among postsecondary employees on the effects of psychological disorders. Specifically, front line workers—including admissions, counselors, and advisors—demonstrate impatience upon requests for information or assistance. It is just as likely that “those who recognize the needs of students are often coaches, department secretaries, RAs [Resident Assistants], and others, rather than faculty” (Mowbray et al., 2006, p. 231).

After studying the qualitative responses of 35 people with psychiatric disabilities, Megivern et al. (2003) concluded that “members of the campus community may also need to change their attitudes about mental illness, e.g. people with psychiatric problems are not intelligent, they are incapable of applying their education in the workforce, or they are dangerous, weak-willed people” (p. 229). Studies continue to emphasize the disruptive nature and legal remedies to “handle” such students, at the expense of examining the needs of the overwhelming majority of students who do not cause problems. In a similar vein, Becker et al. (2002) also reiterated that “advocacy and education of faculty and students to promote attitudinal change may be as important as providing services to students” (p. 360). Absent
from this missive are college administrators. While most student affairs professionals are concerned about mental health issues, wide disparities in attitudes exist; Benton and Benton (2006) offered the example of an administrator at a highly selective college who suggested mental health needs could be ignored since unsuccessful students were easily replaceable with other eager applicants.

**Entry-level administrators.** Practitioners who are relatively new to the field of student affairs present an excellent population to study on variables related to referrals to mental health in college students due to their relative lack of experience and close interactions with students. By definition, professionals who have less than six years' experience working in higher education have had fewer opportunities to interact with and understand the challenges faced by college students with mental illness. Yet, when compared to mid- and senior-level professionals, newer professionals tend to have positions—with titles such as Coordinator, Specialist, and Assistant Director—that generally require higher levels of regular interaction with college students on the “front line.”

There has existed much debate which competencies—counseling vs. administration and practical experience—are most important to successful student affairs practice and just how well graduate preparation programs address these skills (Cuyjet et al., 2009). Today, most recognize that successful professionals working in complex environments utilize both sets of skills, and more. While no certification or licensure exists for graduates of masters'-level student affairs preparation programs, the Council for the Advancement of Standards (2006) outlined guidelines for the content of graduate programs and for the demonstrated knowledge of graduates. Among other guidelines, the standards delineate that professional studies must include (a) student development theory, (b) student characteristics and effects of college on students, [and] (c) individual and group
interventions...Demonstration of minimum knowledge in each area is required of all program graduates. (p. 350)

CAS standards do not reference work with college students with mental illness per se, but the above guidelines suggest professionals should have at least minimum knowledge of characteristics of this subpopulation as well as individual and group interventions to assist such students.

Cuyjet et al. (2009) surveyed 139 entry-level professionals having completed their master’s programs within the past three years and compared responses to current supervisors. Recent graduates rated the training they received in their graduate programs; this was contrasted with supervisors’ perceptions of their employees’ mastery of essential competencies. Overall, new professionals reported they received a high level of training in all competency areas, but that for 14 of the 22 competencies, the mean level of training provided in graduate school was lower than the mean level of on-the-job importance. In other words, the professionals felt that although they had received appropriate general preparation, their confidence level in critical skill areas did not equal the demands of the position. The authors conclude that the mid-level managers of these entry-level professionals must consider these new practitioners as “works-in-progress” (p. 114) and provide them with necessary training and professional development. Fortunately for the field, entry-level practitioners act like “sponges,” eager for such continuing education (Renn & Jessup-Anger, 2008).

Courses offered within graduate preparation programs may not effectively address the basic counseling needs of student affairs professionals as helpers. Basic counseling techniques as part of overall helping skills are commonly addressed in counseling-based graduate preparation programs. Current student affairs practice, witness to the rise and
severity of mental health issues and crises, warrants more advanced counseling skills such as conflict resolution and crisis intervention that are not taught in college student personnel master's programs (Reynolds, 2009). In addition, even basic counseling courses may not be targeted towards student affairs professionals as “allied professional counselors” (p. 20) and instead are aimed at in-depth clinical and therapeutic techniques for graduates in counseling programs. Certainly, graduates of administrative-based higher education programs or from other programs working in entry-level student affairs positions many not have had any counseling- or helping-related preparation.

The combination of these factors—low levels of experience, high student contact, perceptions of ability lower than is demanded by jobs, and the limitations of graduate preparation in counseling and helping skills—suggest entry-level student affairs professionals present an important population to study on knowledge and attitudes towards college students with mental illness.

**Demographic characteristics and stigma.** Studies have demonstrated a relationship between demographic variables including gender, age, education, and ethnicity on stigmatizing attitudes towards mental illness. Mojtabai (2010) maintained that improved knowledge of the impact of such variables can eventually inform the design and content of anti-stigma campaigns and trainings. Understanding the relationship of demographic variables to stigma is important in terms of reducing barriers to help-seeking behavior (Rodgers, 2009).

The female gender has been associated with more positive attitudes towards mental illness and/or less social distance (Baumann, 2007; Becker et al., 2002; Pietrzak et al., 2009; Rao, 2004; Rodgers, 2009). Prior research suggested that men were more likely to view
persons with mental illness as a threat to society and more deserving of social restrictions (Verzinski, 2006). Capetan (2000) examined gender differences in attitudes toward mental illness and treatment by surveying 369 college students using descriptive vignettes of persons with depression and substance abuse. Prior gender disparities, the author reasoned, were likely explained by differences in gender roles; stereotyped notions of femininity include nurturance and kindness, while masculinity includes authoritarianism. Notions of how one is “supposed to react to others” could help explain differences in men and women’s attitudes toward mental illness. Capetan’s findings, however, contradicted prior research. There were no gender differences in: viewing mental illness as due to personal weakness, endorsing negative feelings and impressions of the vignette protagonists, or ratings of the protagonists on various skills. The author noted that the lack of gender disparities in attitudes towards mental illness could be due to a decreased impact of gender role expectations in the college student population because of the exposure to alternative explanations for behavior within higher education. Participants did, however, view a target with substance abuse as having more negative personality attributions, being rejected by others, and as having more maladaptive coping skills than a person with depression. Capetan suggested that substance abuse, as a more externalized problem, received more stigma than the internalized problem of depression. And while attitudes towards psychological disorders did not differ across the gender of the raters, female targets in the vignettes with the substance abuse condition received more social rejection responses than male targets with substance abuse, likely because behaviors associated with substance abuse are more at odds with stereotypical gender role expectations for women.
Age and education are associated with attitudes towards mental illness. Younger persons tend to demonstrate more positive attitudes—although findings are mixed—as do more educated persons (Angermeyer & Dietrich, 2006; Mojtabai, 2010). After surveying 12,469 Armed Forces troops returning home from war to the United States, Australia, United Kingdom, New Zealand, and Canada, Gould et al. (2010) conclude “age and gender are major determinants of stigma” (p. 253). In a large-scale general population survey of 29,248 European adults across 28 countries, stigmatizing attitudes towards mental illness were associated with higher age, males, and fewer years of education as well as the absence of use of mental health services or medications within the past year (Mojtabai, 2010). Alternatively, younger age has been linked to greater stigmatizing attitudes as well (Pietrzak et al., 2009).

On measures of stigma, racial and ethnic disparities also exist. Using a pre- and post-questionnaire with 245 community college students receiving an educational intervention, African Americans and Asians demonstrated the highest ratings on a measure of perceived dangerousness and desire for social distance from persons with mental illness, followed by Whites, and then Latinos (Rao et al., 2007). Following the intervention, African Americans continued to show the highest levels of perceptions of dangerousness and desire for distance, followed again by Whites and then Latinos. Of the four ethnic groups studied, after the intervention, Asians rated dangerousness and desire for social distance lowest. Rao et al. (2007) suggested that African Americans, compared to other ethnic groups, experience more stigma in their daily lives, are more attuned to it, and thus endorse more items on stigma measures.
The impact of gender, age, ethnicity, and education on stigma has been examined, but the size and type of college where the professional is employed are other demographic variables that may impact professional attitudes. Writers in higher education acknowledge that "size is an important institutional characteristic" (Westfall, 2006, p. 9). The Carnegie Foundation for the Advancement of Teaching (n.d.) developed classifications based on student enrollment to aid research. In describing the role of campus size, the policy and research center emphasized:

Size matters. It is related to institutional structure, complexity, culture, finances, and other factors. Indeed, it is probably the most influential omitted variable in the 1970 classification framework...character reflects aspects of the campus environment, student population served, and the mix of programs and services that an institution provides. (para. 2)

Faculty and administrators typically reference some of the commonly-held assumptions about smaller versus larger campuses and the impact of size on the college student experience. Schools with smaller enrollments are typically assumed to focus more on teaching, have more and easier opportunities for students to make social connections, offer greater individual attention and smaller class size, but also to offer fewer services, albeit more easily-accessible ones. Schools with large enrollments are typically assumed to be more intimidating and bureaucratic, present navigational and parking challenges, have larger class sizes, emphasize research, have safety concerns, present greater challenges for students making social connections, and offer a greater array of services that may be harder to access. Advice to college-bound students with mental illness from the National Alliance on Mental Illness advocacy organization point out students may feel less overwhelmed on smaller campuses but may find fewer psychological services offered (n.d.).
Westfall (2006) spoke to the unique differences in role and function of student affairs leaders at small colleges as compared to larger universities. Small colleges vary widely in character from elite, selective schools with large endowments to lesser-known colleges with open enrollment policies and questionable budgetary futures, but many possess a historic role of advocacy for groups of students that were excluded from other institutions, including women, Blacks, Native Americans, and Catholic student populations (Westfall). Therefore, it is reasonable to question if these differences in character and culture may be reflected in administrator attitudes towards a stigmatized group of students.

In addition to the size of a college, the type of college—whether public or private—is another variable that has been included in studies of student learning. In reviewing a decade of research during the 1990s, Pascarella and Terenzini (2005) found that, compared to public institutions, private colleges do show small yet positive effects on level of educational attainment, and (usually private) church-affiliated colleges have a positive influence on students’ “altruistic social values” (p. 595). Despite these findings, Pascarella and Terenzini concluded that the public versus private nature of a college as well as its size mean little to overall student development.

The literature has addressed the role of gender, age, ethnicity and education on stigmatizing attitudes, and while size and type of college have been studied as variables potentially associated with student learning, no research has specifically examined the impact of these demographics on the attitudes and behavior of administrators.

**Efforts to Address Stigma**

**Education, Contact, and Protest**
Stigma represents a social problem to be addressed publicly, not a problem manifested through individual adjustment and treated with therapy (Corrigan & Rusch, 2002). Education, contact, and protest represent three promising avenues to consider when designing efforts to eradicate stigma (Corrigan et al., 2001). The goals of education are to replace myths surrounding mental illness with more accurate conceptions. Knowledge about mental illness leads to a new interpretation of what formerly was perceived to be strange (Baumann, 2007). Efforts at education can be especially effective if the leader is interesting, believable, and likable. Education effects are positive and immediate but small as presently studied (Corrigan & Larson, 2008). Persons with mental illness note that education of others is their primary recommendation to reduce stigma (Wahl, 1999). Contact consisting of positive, direct interactions with persons with mental illness can also reduce stigma (Corrigan & Larson, 2008; Wahl, 1999). As suggested by Goffman as early as 1963, “as persons come to be on closer terms, this categorical approach [stereotyping] recedes and gradually sympathy, understanding, and a realistic assessment of personal qualities takes place” (p. 51). Contact is optimal when it contains four elements: equal status between groups, common goals, the absence of competition, and authority sanction for the contact (Watson & Corrigan, 2005). Like education, the effects of contact are also positive but endure over time (Corrigan & Larson). Protest has been suggested as the third method to address stigma. However, results from a survey of 152 community college students suggest some protests attempting to suppress negative attitudes may backfire, since increasing external pressure to do something can decrease compliance (Corrigan et al., 2001).

Effective Interventions
Jorm and Kelly (2007) outlined methods of successful interventions to improve mental health literacy in the general public. Similar to other countries, Australians have poor recognition of psychological disorders, hold overly optimistic views of the effectiveness of support by family and friends, and hold negative view of psychoactive medication. Large-scale interventions can include government campaigns (e.g. those offered in Australia, the United Kingdom, and Germany), school-based programs, websites, and individual training courses (Jorm & Kelly, 2007).

Recent studies assessing the impact of short, educational programs on attitudes towards mental illness demonstrated effectiveness. In Japan, Tanaka, Ogawa, Inadomi, Kikuchi, and Ohta (2003) found that industrial workers and government employees having participated in a one-and-a-half-hour training demonstrated significantly more positive attitudes towards people with mental illness, compared to a pre-test, on the Mental Illness and Disorder Understanding Scale (MIDUS). Similarly, in the United States, a one-and-a-half-hour training administered to 153 faculty and staff across nine colleges addressing facts, misconceptions, general information, services, and referral methods regarding mental illness resulted in significantly improved attitudes and knowledge about mental illness (Cook & Yamaguchi, 1993). In another U.S. study, a forty-minute intervention with 105 undergraduates resulted in improved attitudes about mental illness and help-seeking that were maintained one month later (Sharp et al., 2006). Pinfold, Thornicroft, Huxley, and Farmer (2005) administered two, fifty-minute educational sessions to 472 high school students and two, two-hour sessions with 187 adults in England. Contact with mental health consumers had the most impact in decreasing stigma, but only in adolescents, not adults. Gonzalez, Tinsley, and Kreuder (2002) performed interventions targeting 167 U.S. college
students' opinions on mental illness and treatment-seeking. After one month, students did not maintain their initial improvements in opinions about mental illness, but still demonstrated improved attitudes towards help-seeking. Gonzalez et al. concluded that since the conceptual understanding of mental illness is resistant to change, interventions should consist of more in-depth programs lasting at least two hours, as demonstrated in Cook and Yamaguchi, Pinfolk et al., and Tanaka et al. Efforts to de-stigmatize attitudes toward mental illness in college students should normalize mental illness and the need for help, and may benefit from including contact with consumers of mental health services and mental health professionals (Gonzalez et al., 2002; Kadison & DiGeronimo, 2004; Pinfolk et al., 2005).

**Need for Collaborative Effort**

Recent recognition is given to the need to offer comprehensive, collaborative efforts to address mental illness (Pinfolk et al., 2005; Swaner, 2007). Beyond studies documenting one-time educational programs, few examples of multifaceted efforts exist. Nolan, Ford, Kress, Anderson, and Novak (2005) reviewed the promising New Diversity Initiative: a seven-part program implemented at a small, private, liberal arts college with an enrollment of 3,000 undergraduates. The program included the following components: one, a training of student affairs staff; two, a research team; three, grants to produce videos targeting student, faculty, and staff audiences; four, the use of Because We Care forms for identification of at-risk students; five, an academic misconduct resource group; six, a faculty and staff training team; and seven, use of assessment and outcomes, such as pre- and post-test measurements of trainings. Unfortunately, the authors noted that the training team had not fully anticipated the development of the New Diversity Initiative at the time of training sessions and thus had not saved the pre- and post-test data for analysis. Nolan et al. concluded that the program
appeared promising and likely benefitted from the active endorsement of the university president and of the vice presidents of the student and academic affairs divisions.

**Professional Development in Student Affairs**

Reducing the presence and impact of mental illness stigma represents one avenue within the important, larger goal of ongoing professional development for student affairs administrators. Student development theory and the associated knowledge of psychology was indicated as the most desired knowledge base in a meta-analysis of thirty years of research relating to successful student affairs administration (Lovell & Kosten, 2000). However, campus environments have been rapidly changing over this time period, and student affairs administrators differ in their interpretation of the role of professional development. Professionals new to the field of student affairs are eager for knowledge and readily accept the need to maintain a lifelong learning orientation (Renn & Jessup-Anger, 2008). This orientation is a positive indicator, given that many graduate preparation programs in student affairs do not address college students with mental illness or disabilities (Reynolds, 2009). Mid-level managers (directors and associate or assistant directors), however, may not share a similar orientation. In a national survey of ACPA members, Sermersheim and Keim (2005) noted with concern that less than 50% of 269 mid-level managers perceived that they needed continued staff development in student contact, personnel management, and communication. Compared to the professional development orientations of entry- and mid-level student affairs professionals, senior student affairs officers (SSAOs) demonstrated a preference to contribute to the development of others. In a qualitative study of five senior student affairs officer’s perceptions on leadership, participants mentioned the importance of encouragement to younger professionals, making contributions
to the field at large, and were most proud of helping students overcome obstacles (Schuh, 2002). These SSAOs could be characterized as servant leaders due to their “ethical and caring behavior...improving the caring and quality of organizational life” (p. 213).

Despite varying perspectives on professional development, Chávez, Guido-DiBrito, and Mallory (2003) encourage student affairs professionals to facilitate diversity development across all campus members. In an article outlining ten important directions for research on how college affects students, Pascarella (2006) implores professionals to expand the notion of diversity beyond the visible topic of racial and ethnic difference to include others such as “diversity of political or religious views, diversity focused on social class or sex, values diversity, background diversity of friendships, and the like” (p. 511), but students with mental illness and/or disability are not specifically named. Pope, Mueller, and Reynolds (2009) describe five ways in which diversity in student affairs scholarship has changed over time. First, scholarship has expanded beyond comparisons of White and Black populations to include the study of veterans, students with disabilities [italics added], adult learners, Latino/a students, Asian students, gay and lesbian students, international students, and students of various religious affiliations. Second, studies have moved beyond the consideration of the other group as “exotic” or as requiring explanation, when compared to the dominant group of privilege. Third and fourth are shifts in the location and focus of inquiry to areas outside the United States and on professionals, rather than on students. Finally, the field is embracing the value of qualitative research as a valid and necessary complement to more traditional, quantitative methods. The authors argue the above changes have served as shifts in thinking necessary to help prepare multiculturally competent student affairs professionals and researchers who can work with diverse college students, including
those with mental illness and disability. Ultimately, when groups of students are marginalized, learning and development are compromised (Chávez et al., 2003).

**Measuring Attitudes Toward Mental Illness**

Attitudes toward mental illness have been assessed by measuring responses to case vignettes and using scales assessing social distance. Day, Edgren, and Eschleman (2007) provided a concise review of five well-known Likert-based instruments measuring attitudes toward mental illness. The first is the Custodial Mental Illness Ideology Scale (Gilbert & Levinson, 1956), followed by Nunnally’s (1961) Mental Health Information Questionnaire. These two early scales purported to measure attitudes of mental health professionals towards their patients, and public misconceptions of mental illness, respectively. Probably the most widely-known and -used measure of attitudes to mental illness to date is the Opinions About Mental Illness Scale (OMI) (Cohen & Struening, 1962). Cohen and Struening’s measure assessed perceptions of hospital personnel on five dimensions: authoritarianism, benevolence, mental hygiene ideology, social restrictiveness, and interpersonal etiology. Advantages of the OMI are its complexity of items, breadth of coverage, and long history of use (Link, Yang, Phelan, & Collins, 2001). The Community Mental Health Ideology Scale (Baker & Schulberg, 1967) assessed professionals’ beliefs about the community health movement, and, while rarely used, it influenced the development of Taylor and Dear’s Community Attitudes Toward the Mentally Ill (CAMI) (1967), a scale that measures public beliefs about the containment of the mentally ill. Day et al. noted that these prior instruments failed to incorporate current stigma theory and thinking into their development, and thus are of questionable validity in the measurement of current public attitudes toward mental illness.
The authors created the Mental Illness Stigma Scale, a measurement of 7 factors of attitudes toward mental illness based upon Jones et al.'s (1984) six dimensions of stigma. While the Mental Illness Stigma Scale (MISS) is an improvement by updating stigma measurement with theory, the scale does not address issues specific to college students or inquire about a respondent's specific behavior related to college students with mental illness. Like the MISS, Tanaka et al.'s 15-item (2003) Mental Illness and Disability Understanding Scale (MIDUS) assessing treatability of mental illness, efficacy of medication, and social recognition of mental illness does not specifically target college students and the university environment.

Link et al. (2004) offer a comprehensive review of stigma measurement research over a recent eight-year period. The authors completed a systematic review of 109 survey, experimental, and qualitative studies and 14 literature reviews published between January 1995 and June 2003 focusing on adults and children with mental illness and their families. Relevant to adults, gaps in measurement were identified in structural discrimination (defined as institutional practices that stigmatize groups), assessment of the emotional reaction of the person with mental illness, and use of experimental and cross-cultural approaches.

Compared to existing instruments measuring mental illness awareness, attitudes, and/or beliefs, the Mental Illness Awareness Survey (MIAS) by Becker et al. (2002) is most appropriate for use with student affairs professionals. The instrument contains questions pertaining to attitudes and beliefs towards mental illness, fear and social distance, confidence in identifying mental illness and ability to help, referrals made for students believed to have mental illnesses, and familiarity with mental health resources. As noted previously, the MIAS was used in the Becker et al. 2002 study of faculty attitudes towards college students.
with psychiatric disabilities, and a modified version was used by Brockelman et al. in a 2006 study of the sources of information about mental illness and faculty perceptions of mental illness in college students.

While the MIAS is the most relevant and appropriate instrument for the research questions of the present study, some modifications were necessary for use with the student affairs population. To differentiate the modified survey from the original MIAS, the questionnaire used in the present study was termed the Student Affairs Mental Illness Awareness Survey (SAMIAS). The 86-item SAMIAS questionnaire in the present study was divided into five sections and required approximately 10 minutes to complete electronically. Details on the validity and reliability of the MIAS and SAMIAS, as well as all modifications to the MIAS, are reviewed in depth in chapter 3.

Summary

Considering the vast number of college students with mental illness, society’s poor treatment of such individuals in the past and barriers to success within higher education, the issue of administrator attitudes toward college students with mental illness therefore presents a timely and important, but relatively unexamined, topic within the higher education literature. It has been recognized that faculty and administrators need to be more caring with students, demonstrating interest and respect (Benton, Benton, & Perl, 2006). Specifically, it remains to be determined what role the presence of stigma plays in encouraging discrimination against college students with mental illness. Entry-level student affairs administrators present an important group to investigate, since these professionals generally have high levels of contact with students, fewer years of experience in the field, and may
have not had graduate preparation on the subject of mental illness in college students. The topic also echoes calls to expand the notion of diversity within higher education beyond ethnicity, and to extend and expand scholarly inquiry to previously ignored students (Pascarella, 2006; Reynolds, 2009). More research into college students with mental illness is called for (Beamish, 2005), in addition to investigation into attitudinal barriers for students with disabilities (Belch, 2004). The study of attitudes in the population of administrators represents a step in applying Corrigan's (2004) social cognitive model of mental illness stigma, as there remains value to examining attitudes as overtly expressed (Day et al., 2007).
CHAPTER III
METHODOLOGY

Introduction

The present study surveyed entry-level professionals belonging to an association representing student affairs administrators. Participants completed an emailed survey titled the Student Affairs Mental Illness Awareness Survey, adapted from the Mental Illness Awareness Survey (Becker et al., 2002). The following five research questions were examined in the population of entry-level student affairs administrators using the seven demographic variables of gender, age, ethnicity, level of education, type of university, enrollment size, and years of experience.

1. What demographic variables of administrators significantly predict fear towards students with mental illness?

2. What demographic variables of administrators significantly predict confidence in ability to help students with mental illness?

3. What demographic variables of administrators significantly predict level of awareness of campus mental health and disability services?

4. What demographic variables of administrators significantly predict referrals to campus mental health and disability services?

5. What demographic variables of administrators significantly predict knowledge of psychological disabilities?
The hypotheses used for this study were:

H1: There is a significant predictive relationship among the seven demographic variables in entry-level administrators (gender, age, ethnicity, level of education, type of university, enrollment size, and years’ experience) on the dependent variable fear towards students with mental illness.

H2: There is a significant predictive relationship among the seven demographic variables in entry-level administrators (gender, age, ethnicity, level of education, type of university, enrollment size, and years’ experience) on the dependent variable confidence in ability to help students with mental illness.

H3: There is a significant predictive relationship among the seven demographic variables in entry-level administrators (gender, age, ethnicity, level of education, type of university, enrollment size, and years’ experience) on the dependent variable awareness of campus mental health and disability services.

H4: There is a significant predictive relationship among the seven demographic variables in entry-level administrators (gender, age, ethnicity, level of education, type of university, enrollment size, and years’ experience) on the dependent variable referrals to campus mental health and disability services.

H5: There is a significant predictive relationship among the seven demographic variables in entry-level administrators (gender, age, ethnicity, level of education, type of university, enrollment size, and years’ experience) on the dependent variable knowledge of psychological disability.

Population and Sample
Population

The population of interest was entry-level student affairs administrators employed at institutions of higher education. To study this population, the sampling frame consisted of all members of an international association representing the interests of college student affairs administrators who indicated their position as entry-level on the membership application. Participants were members of the American College Personnel Association (ACPA), a professional association that describes itself as the "leading comprehensive student affairs association" (American College Personnel Association, 2011, para. 1). Founded in 1924 and headquartered in Washington, DC, ACPA has approximately 8,500 members from 1,500 public and private institutions in the United States and internationally. The mission of the ACPA is to "support and foster college student learning through the generation and dissemination of knowledge, which informs policies, practices, and programs for student affairs professionals and this higher education community" (American College Personnel Association, 2011, para. 4). ACPA was selected due to its presence as one of the two primary professional associations representing the field of student affairs. A second organization, the National Association of Student Personnel Administrators (NASPA), is also headquartered in Washington, D.C., and is slightly larger (11,000 members) and older (founded in 1918) than ACPA (National Association of Student Personnel Administrators, 2011). However, the research questions of the present study on attitudes and beliefs in entry-level professionals were better addressed by targeting members of ACPA since this organization is considered by the author, through experience with the conferences, programs, and communications of both, to have a more diverse membership base and to favor the interests of entry-level professionals. Additionally, ACPA and ACCA (the American
College Counseling Association (ACA) (Kaplan, 2002) and suggests ACPA may have more of a focus on counseling-related issues than NASPA.

The population qualifiers "entry-level" and "student affairs" administrators should be clarified. ACPA members who select "entry-level" to describe their position of employment generally could be described as being new to the profession, having fewer than six years of experience in positions similar to a title of Coordinator (as opposed to Director or Dean) with limited budgetary or supervisory responsibilities. In addition to entry-level employment, the present study focuses on the population of student affairs administrators—professionals dedicated to supporting broad learning goals targeting development of the whole student primarily in contexts beyond the classroom. It is possible for professionals who would be classified as academic administrators to be members of ACPA; for example, academic advisors may have institutional reporting lines outside divisions of student affairs. As such, participants of the present study probably include entry-level academic administrators who share the mission and ideals of the student affairs field.

Years of student affairs experience is the seventh independent variable. While all survey respondents had less than six years of experience, there was a possibility of significant differences in attitudes towards college students between professionals who had just begun their first job and those completing a fifth year in the field. This data also served as a check that the respondents were indeed entry-level.

**Sample**

Following procedures outlined by ACPA, a formal application was submitted to the association requesting use of the membership contact list. To target the population of entry-
level administrators working in postsecondary education, the list was assembled according to the following criteria: members who joined under the categories of “General Member at Member Institutions” or “General Member” and who indicated position level as “Entry-level.” Other membership types and position levels that were not included are retired professionals, mid-level and senior-level professionals, faculty, college presidents, and those not working at an institution of higher education. Information on the application submitted for ACPA membership included a description of the study purpose and connection to the association’s mission, identification of who was being accessed; a copy of the IRB approval, including anticipated risks; faculty advisor and contact information; study timeline; and study duration. There was no charge for the member list.

There were approximately 700 members of ACPA who self-identified as “entry-level” which was defined as having less than six years of professional experience. The majority of members were located in the United States but there is a growing portion of international membership. Including entry-level professionals outside the United States mirrors trends in student affairs scholarship to expand beyond American populations (Pope et al., 2009). Due to the use of an electronic survey where every member is easily accessed, all entry-level members were surveyed. Green (1991) recommends a sample size of $N \geq 50 + 8(p)$, with $p =$ number of independent variables. Therefore, with seven independent variables, a sample size of 106 was required to complete regression analyses. Similarly, to minimize shrinkage, or the overestimation of $R$, most authors recommend using a ratio of predictors to sample size of at least 1 to 15, with others advocating smaller ratios such as 1 to 30 (Pedhazur, 1997). Using a 1 to 15 ratio, the seven independent variables in the current
study necessitated a sample size of 105. Therefore, the goal of the current study was to achieve an $N$ of 105 to 106 participants, assuming a manageable 15% response rate.

**Research Design**

The research design was non-experimental because the demographic groups were pre-existing and the dependent variables were not manipulated. The email survey was administered using the survey software program SurveyMonkey. A meta-analysis comparing response rates across formats in 68 surveys indicated that response rates to mail surveys averaged 55.6%, while rates to email surveys averaged 39.6% (Cook, Heath, & Thompson, 2000). The authors concluded, however, that representativeness was more important than response rate per se. Also, an earlier study comparing response rate in a faculty population found a slightly higher response rate to email surveys (58%) than mail (57.5%) (Schaefer & Dillman, 1998). Shannon and Bradshaw (2002) noted that, “to successfully implement electronic surveys, survey professionals usually draw samples from organizational lists (e.g. company employees, university faculty, professional membership) that include email addresses” (p. 180). The present study incorporated an initial invitation, reminder at one week, and final reminder two days before the close of the survey, but did not make use of a suggested pre-contact (Cook et al., 2000). Since ACPA provided member emails only to the author with no other identifying information, it was not possible to use personalized invitations—an additional factor associated with higher email survey response rates. However, having voluntarily joined, members were assumed to have an affinity with ACPA that may have compelled participation.
Instrument

Description

Participants completed an online questionnaire comprised of 86 questions (Appendix A). The questionnaire, titled the Student Affairs Mental Illness Awareness Survey (SAMIAS), was an adaptation by the current author and based largely on the Mental Illness Awareness Survey (MIAS) created by Becker et al. (2002). Previous modifications to the instrument have been made to study sources of information about mental illness and faculty perceptions in published research (Brockelman et al., 2006) and comparisons of faculty versus student attitudes and knowledge in non-published research (Eric Wright, personal communication, December 3, 2008). All items from the MIAS were used with the explicit permission of the author. The SAMIAS questionnaire in the present study, adapted by the author from Becker et al., was divided into five sections and required approximately ten minutes to complete. The MIAS (Becker et al., 2002) contained sections of questions pertaining to attitudes and beliefs towards mental illness, fear and social distance, confidence in identifying mental illness and ability to help, referrals made for students believed to have mental illnesses, familiarity with mental health resources, and preferred methods of learning about mental illness. Adaptations from the original MIAS are described in further detail below.

Sections A and B. Sections A and B in the current survey assessed the perceived frequency of mental illness in college students, administrator familiarity with specific psychological disabilities and campus services, and sources of information about mental illness.
Section A consisted of eleven questions assessing the rater’s frequency of observation of specific behaviors indicative of mental illness using a four-point Likert scale with labels of never, rarely, sometimes, and often. The prompts for section A were changed slightly from a “typical class” to a “typical week” to apply to administrators instead of teaching faculty. In addition, a question about excessive class absences was removed, since administrators tend to interact with students in a less scheduled manner. Section A also included a summary question assessing how often in a typical week administrators witness these behaviors in college students.

Section B assessed familiarity with campus mental health and disability support services on two items, #B1 and #B2. The question measuring familiarity with disability services (#B2) was added due to the tepid support of students with disabilities in higher education and the lack of knowledge about effective methods of serving students with psychiatric disabilities (Belch, 2004). The interval-scaled “awareness of campus services” dependent variable was created by summing responses to items #B1 and #B2 using a five-point scale of not familiar, somewhat familiar, familiar, very familiar, and no services/not available. The fifth response option was added to provide an option for administrators from campuses who lack such services; these responses were coded as zero and not included in calculations for the awareness of campus services variable.

The interval-scaled “knowledge of psychological disabilities” dependent variable was created by summing responses to ten items (#B3 to #B12) using a four-point Likert scale with labels of not familiar, somewhat familiar, familiar, and very familiar. Three disorders were added in the current study—eating disorder, post-traumatic stress disorder, and substance abuse—due to their common frequencies as noted in recent studies using college
student populations (American College Health Association, 2005). The term familiar was not defined and rather, was left to rater interpretation.

A final item in section B (#B13) assessed the rater’s sources of knowledge about mental illness, with multiple choices of formal education; personal experience; family, friends, and coworkers; professional experience; media; and other.

Section C. Section C assessed the rater’s attitudes toward, beliefs about and knowledge of mental illness in college students. The first group of fifteen questions (#C1 to C15) used a five-point Likert scale with labels of never, rarely, sometimes, often, and always. The interval-scaled variable “confidence in ability to help” was created by summing five items, survey questions #C10 through #C14. In this study, for ease of reporting, the “confidence in ability to help” variable name was shortened from the longer, original title of “confidence in identifying mental illness among students and perceived ability to intervene.” Slight wording modifications were made to apply to administrator raters; question #C2 was changed to “succeed in college” instead of “in my class,” and question #C14 deleted the phrase “in my class.”

The second group of twenty-three questions (#C16 to C38) used a four-point Likert scale with labels of strongly disagree, disagree, agree, and strongly agree. Within this subgroup were items for the dependent variable “fear.” For ease of reporting, the variable name “fear” was shortened in this study from the original “fear and social distance.” The interval-scaled variable “fear” was created by summing four items, survey questions #C16, C22, C31, and C36. On the fear scale, item #C16 was reverse-scored. Slight wording changes were made to items #C16, C24, C31, C32, and C36 to reflect administrator practice; the phrases “in my class” or “in the classroom” were deleted or were replaced with “in an
office” or “on campus.” Items #C37 and C38 were added to inquire about the current level of mental health educational efforts on campus, and about the desire for additional professional development.

The final item of the section, #C39 (section H on the original MIAS) assessed what methods respondents preferred for information about mental illness and included multiple choice options of workshops, videos, brochures, newsletters, talking to a specialist, and other.

Section D. Section D contained seven items (#D1 to D7) about the effectiveness of strategies used with students believed to have mental illnesses. The interval-scaled dependent variable “referrals to campus services” was created by summing responses to these items using ratings on a five-point Likert scale with labels of not effective, somewhat effective, effective, very effective, and have not used. Several changes were made from the faculty referrals and accommodations section of the original MIAS. Six items about classroom accommodations deemed not relevant to student affairs administrators were deleted. Items #D6 and D7 about consultation with university disability services and dean of students/senior student affairs officer were added. Given the lack of knowledge about accommodations for students with psychiatric disabilities (Belch, 2004) and the challenges of handling critical incidents with students with psychiatric disabilities (Belch & Marshak, 2006), these represent important additions. Finally, rating choices within section D were simplified to match the format utilized by the SurveyMonkey program. The original MIAS required two responses to each strategy: 1) whether or not the strategy had been used, and 2) its level of perceived effectiveness. The SAMIAS assessed the rater’s level of perceived effectiveness for each strategy and included a response option for “have not used.” Since the “have not used” response indicated an inability to rate the effectiveness of such strategies and
was intended to capture administrators who either lack such services or have not used them, these responses were coded as zero and removed from calculations for the referrals to campus services variable. There is certainly a clear and interesting difference between administrators who lack services and those who have campus services but have not used them, but the "referrals to campus services" variable is concerned with perceptions of effectiveness related to the use of several referral strategies and, therefore, is not concerned with respondents who either lack or have not used certain services. Five of the seven items in the "referrals for services" were present on the original survey, and the current study groups these items into one dependent variable.

Section E. Section E, the final survey group of fifteen items, captured demographic information. Questions #E1, E2, E3, E4, E8, E9, and E10 assessed the seven independent variables of gender, age, ethnicity, level of education, characteristics of employing institution (type and enrollment), and years of full-time experience, respectively. Items #E11 to E13 assessed primary job function, position level, and full- or part-time status, and served to double-check that respondents were employed at the entry-level within institutions of higher education. The scale of measurement for the age and years of experience independent variables was interval, while all other demographic variables were nominal (categorical). Additional demographic variables assessed type of graduate program, if completed (#E5; counseling-based, administration-based, or other), number of undergraduate and graduate courses in counseling (#E6 and E7), and countries of origin and employment (#E14 and E15). The items assessing type of graduate program and number of completed courses in counseling did not define the content for such programs and courses but rather left it to rater interpretation. The additional demographic variables beyond the seven independent
variables, while not included in the five main research questions, were added to help inform results and guide future research.

Four of the demographic variables—gender, age, ethnicity, and level of education—were included as independent variables due to their associations with attitudes toward mental illness as demonstrated by prior research of university and non-university populations. The term gender is used for the independent variable in place of sex since the latter "is biological; [it is to be] used when the biological distinction is predominant. Note that the word sex can be confused with sexual behavior. Gender helps keep meaning unambiguous" (American Psychological Association, 2010, p. 71). The remaining three independent variables—type of university, size of university enrollment, and years of higher education experience—have not specifically been investigated in relation to attitudes towards mental illness. These variables were included because of their high relevance to the population of student affairs administrators and potential use in application of findings. Because of the well-documented need for education about mental illness in higher education, these three variables, if found significant, could help establish where educational interventions should be concentrated. Table 1 outlines the seven independent and five dependent variables of the study, with the corresponding questionnaire items.
Table 1

*List of Variables*

<table>
<thead>
<tr>
<th>Variable</th>
<th>No. of Items</th>
<th>Questionnaire Item(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Independent Variables</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Gender</td>
<td>1</td>
<td>E1</td>
</tr>
<tr>
<td>Age</td>
<td>1</td>
<td>E2</td>
</tr>
<tr>
<td>Ethnicity</td>
<td>1</td>
<td>E3</td>
</tr>
<tr>
<td>Level of education</td>
<td>1</td>
<td>E4</td>
</tr>
<tr>
<td>Type of university</td>
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<td>E8</td>
</tr>
<tr>
<td>Size of university</td>
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<tr>
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<td>1</td>
<td>E10</td>
</tr>
<tr>
<td><strong>Dependent Variables</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fear towards students with mental illness</td>
<td>4</td>
<td>C16 (rev-scored), C22, C31, C36</td>
</tr>
<tr>
<td>Confidence in ability to help students with mental illness</td>
<td>5</td>
<td>C10, C11, C12, C13, C14</td>
</tr>
<tr>
<td>Awareness of campus mental health and disability services</td>
<td>2</td>
<td>B1, B2</td>
</tr>
<tr>
<td>Referrals to campus mental health and disability services</td>
<td>7</td>
<td>D1, D2, D3, D4, D5, D6, D7</td>
</tr>
<tr>
<td>Knowledge of psychological disabilities</td>
<td>10</td>
<td>B3, B4, B5, B6, B7, B8, B9, B10, B11, B12</td>
</tr>
</tbody>
</table>

**Validity**

Items on the original MIAS were developed based on a review of the literature and on the teaching and clinical experience of the authors, a team of professionals associated with the Florida Mental Health Institute and the Office of Institutional Research and Planning, located at the University of South Florida (Becker et al., 2002). The survey was pilot-tested and refined using students and faculty. The authors reported use of factor analysis to create the two scales of confidence in identifying mental illnesses among students and perceived ability to intervene, and degree of fear and social distance. The factor analysis was requested
but not available from the study authors; the author with possession of the original factor analytic data was not able to be located by the primary author.

The MIAS was administered with some additions and alterations in another study of faculty perceptions by Brockelman et al. (2006). These authors concluded that “based upon the Cronbach’s alpha computations, correlations, the reliability and validity of the instrument from which it was adapted, and its foundation in theory, the questionnaire was considered to be a valid instrument for the evaluation of faculty members’ confidence and comfort in working with students with [psychiatric disabilities]” (p. 27).

**Reliability**

Internal consistency Cronbach’s alphas for the fear and confidence dependent variable scales were reported as follows in the original study by Becker et al. (2002): confidence in identification and ability to intervene $\alpha = .88$, and degree of fear and social distance $\alpha = .79$. The later study using the MIAS by Brockelman et al. (2006) found Cronbach’s $\alpha = .72$ for confidence, and $\alpha = .73$ for comfort, described by the authors as the inverse of Becker et al.'s fear and social distance variable. These values fall above the suggested minimum level of $\alpha = .70$ for acceptable internal consistency in basic and preliminary research (Nunnally, 1978; Murphy & Davidshofer, 1988). Internal consistency Cronbach’s alphas were computed to assess the reliability of the five dependent variable scales used in this study and reported in chapter four.

**Pilot Test**

The questionnaire was administered to a convenience sample of 71 student affairs administrators at the author’s institutions of employment, both prior and current, and of
doctoral study in fall, 2010. Institutional Review Board (IRB) approval was obtained for the pilot study. The past and present employing universities are small, private, residential liberal arts colleges while the doctoral study university is a large, public, research university. An effort was made to sample staff from various departments, as well as to focus on entry-level administrators. The pilot sample of convenience did not include any mid-level professionals but most were not members of ACPA. Although many in the pilot study were not members of this specific professional organization, they can still be considered representative of the population of entry-level student affairs practitioners.

Thirty-eight respondents out of seventy-one invitations completed the pilot survey in fall 2010 for a response rate of 53.52%, with seven of the respondents providing specific comments to the author on format, flow, and wording. Several commented on the difficulty of providing ratings on students with mental illness as an all-inclusive category, since students’ behavior across diagnoses can vary widely. One respondent appreciated the availability of demographic options for transgender and biracial participants, and another noted a comment on survey flow. Items in the latter part of section C stretched down the page such that the rating choices were not easily visible; these items were split into two online pages. One respondent commented that the terms “suspiciousness” and “grandiose ideas” should be clarified. As with the demographic items on number of undergraduate and counseling courses completed, these terms were left to respondent interpretation. The alternative—providing precise but lengthy definitions for every term—would add unnecessary length and potentially reduce the response rate. All agreed the time estimate of about 10 minutes was accurate.
The main survey of entry-level ACPA members in spring 2011 resulted in 168 responses out of 698 invitations for a 24.07% response rate. Since questionnaire content was not altered after the pilot study for use with the main survey, pilot and main study responses were combined to result in a total study N of 206 out of 769 invitations, for an overall study response rate of 26.79%.

Independent sample t-tests were conducted to determine if there were significant differences between respondents in the pilot group compared to the ACPA members in the main survey on the five dependent variables. Due to the calculation of five tests, a Bonferonni correction was implemented such that an alpha level of 0.01 was used to test the significance of $t$, calculated by taking the standard alpha of 0.05 and dividing by five. Levene's Test for equality of variances indicated that the equal variance assumption was upheld for fear, $F = 0.804$, $p = .371$; confidence, $F = 0.248$, $p = .619$; referral to campus services, $F = 1.424$, $p = .234$; and knowledge of psychological disabilities, $F = 0.677$, $p = .412$. The assumption of variance equality was not supported for awareness of campus services, $F = 6.736$, $p = .01$. T-tests indicated there were no significant differences between the pilot and main survey group on dependent variables fear, $t(186) = 0.236$, $p = .814$; confidence, $t(193) = 0.744$, $p = .458$; referral campus services, $t(186) = 0.388$, $p = .698$; and knowledge of psychological disabilities, $t(199) = 0.97$, $p = .333$. With equal variances not assumed, there was also no significant difference between survey groups on awareness of campus services, $t(45.511) = 0.753$, $p = .456$. These tests provided support for the decision to combine pilot and main ACPA respondents for analyses in the present study, as the two groups did not differ significantly on the five dependent variables.
Data Collection

The researcher submitted paperwork for study approval to the Institutional Review Board (IRB) at the University of Louisville, and upon IRB approval, materials were sent to ACPA requesting use of the entry-level, general membership email list. A list containing 702 email addresses was received. Four email addresses were duplicates of participants from the pilot study and therefore removed by the author, for a total of 698 potential respondents. The main survey was conducted over a two-week period in spring 2011.

The initial email invitation with consent was sent to the sample of 698 entry-level ACPA members, including a link to the internet location (URL) of the survey at the SurveyMonkey website. The survey program only allowed one response from each internet address and did not collect identifying information. The informed consent preamble was duplicated as the first page of the survey and stated that by completing the survey, the person consented to participate. Seven and ten days after the initial invitation email, follow-up requests to complete the survey were emailed to non-responders. Only three total contacts were conducted, because although multiple contacts improve survey response rate (Dillman, 2000), more than three can be perceived as annoying by potential participants (Cook et al., 2000). The survey avoided the beginning and end of the spring academic semester, as well as the several weeks prior to the ACPA conference, as these times present heavier workloads for student affairs professionals. The study also avoided the first two months of the fall semester since brand new professionals beginning a position at the start of the academic year would be expected to have difficulty answering questions drawing on work experience.

Data Analysis

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Cronbach’s alpha internal reliability consistencies were computed for the five dependent variables: (a) fear, (b) confidence in ability to help, (c) awareness of campus mental health and disability services, (d) referrals for services, and (e) knowledge of psychological disabilities. For each of the five research questions, simultaneous regression was used since the goal of the study was prediction and there is a lack of evidence demonstrating the relative contributions of the independent variables to the five dependent variables under consideration (Pedhazur, 1997). The assumptions underlying multiple regression of linearity, homoscedasticity, and normality of residuals was also checked. The assumption of independence was met since only one set of responses was received from each participant. In addition to the four assumptions, collinearity and the presence of outliers and influential points was determined. All computations were performed using SPSS 18.0.

To examine research question one on significant demographic predictors of fear towards students with mental illness, a simultaneous regression was performed using the fear scale as the dependent variable, and the seven demographic variables as independent variables (gender, age, ethnicity, education completed, type of university, size of enrollment, and years of higher education experience).

To examine research question two on significant demographic predictors of confidence in ability to help, a simultaneous regression was performed using the confidence in ability to help scale as the dependent variable, and the seven demographic variables as independent variables (gender, age, ethnicity, education completed, type of university, size of enrollment, and years of higher education experience).

To examine research question three on significant demographic predictors of awareness of campus services, a simultaneous regression was performed using the awareness
of campus services scale as the dependent variable, and the seven demographic variables as independent variables (gender, age, ethnicity, education completed, type of university, size of enrollment, and years of higher education experience).

To examine research question four on significant predictors of referrals to campus services, a simultaneous regression was performed using the referrals to campus services scale as the dependent variable, and the seven demographic variables as independent variables (gender, age, ethnicity, education completed, type of university, size of enrollment, and years of higher education experience).

To examine research question five on significant predictors of knowledge of psychological disabilities, a simultaneous regression was performed using the knowledge of psychological disabilities scale as the dependent variable, and the seven demographic variables as independent variables (gender, age, ethnicity, education completed, type of university, size of enrollment, and years of higher education experience).

Due to the calculation of five simultaneous regressions using the same demographic predictor variables, a Bonferonni correction was implemented such that each regression utilized an alpha level of .01 to test the significance of $F$. This was calculated by taking the standard alpha of .05 and dividing by five.
CHAPTER IV

RESULTS

Overview

Chapter four presents the results of all data analyses. First, descriptive statistics are presented for independent variables, dependent variables, and variables of secondary but related interest. Second, the correlation matrix for all variables in the study is summarized and reviewed. Third, the acceptability of reliability coefficients is offered. Fourth, assumptions underlying the use of multiple regression are checked, and last, results of the five simultaneous regression analyses are presented.

Descriptive Statistics

Table 2 presents descriptive statistics for age and years of experience, the two continuous independent variables in the study. The mean age of respondents was 29 (SD = 4.32) with a range from 24 to 53, while mean years of experience was 2.82 (SD = .90) with a range of 1 to 6 years.

Table 2

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>M</th>
<th>SD</th>
<th>range</th>
<th>N</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>29.0</td>
<td>4.32</td>
<td>24-53</td>
<td>167</td>
</tr>
<tr>
<td>Years of experience</td>
<td>2.82</td>
<td>0.90</td>
<td>1-6</td>
<td>191</td>
</tr>
</tbody>
</table>
Table 3 presents descriptive statistics for the five categorical independent variables in the study. Slightly over two-thirds (69.1%) of respondents were female, 30.4% were male, and 0.5% were transgender. The large majority (84.3%) were White, with 15.7% non-White respondents comprised of Black (8.9%), Multiracial (3.1%), Hispanic (2.6%), and Asian/Pacific Islander (1%) respondents. Most respondents (91.6%) possessed a master’s degree, followed by 6.3% with a bachelor’s degree and 2.1% with a doctoral or professional degree. The type of employing university was roughly evenly split between 51.6% at publics (of these, 2.1% worked at 2-year colleges) and 48.4% at privates (all of which were four-year colleges). A quarter (25.1%) of respondents worked at small colleges with student enrollment of less than 2,500, another 27.2% worked at medium-sized colleges with enrollment between 2,500 and 9,999, while 47.6% worked at large colleges with enrollments of 10,000 or more. The distribution across the seven demographic variable categories in the current study as outlined in Table 3 below is remarkably similar to other, recent studies of entry-level ACPA members (Davidson, 2009).
Table 3

Descriptive Statistics for Categorical Independent Variables

<table>
<thead>
<tr>
<th>Independent Variable</th>
<th>Total</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>GENDER</td>
<td>191</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td></td>
<td>58</td>
<td>30.4</td>
</tr>
<tr>
<td>Female</td>
<td></td>
<td>132</td>
<td>69.1</td>
</tr>
<tr>
<td>Transgender</td>
<td></td>
<td>1</td>
<td>0.5</td>
</tr>
<tr>
<td>ETHNICITY</td>
<td>191</td>
<td></td>
<td></td>
</tr>
<tr>
<td>White</td>
<td></td>
<td>161</td>
<td>84.3</td>
</tr>
<tr>
<td>Non-White</td>
<td></td>
<td>30</td>
<td>15.7</td>
</tr>
<tr>
<td>African American</td>
<td></td>
<td>17</td>
<td>8.9</td>
</tr>
<tr>
<td>Asian/Pacific Islander</td>
<td></td>
<td>2</td>
<td>1.0</td>
</tr>
<tr>
<td>Hispanic</td>
<td></td>
<td>5</td>
<td>2.6</td>
</tr>
<tr>
<td>Multiracial</td>
<td></td>
<td>6</td>
<td>3.1</td>
</tr>
<tr>
<td>Native American</td>
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<td>0</td>
<td>0</td>
</tr>
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<td>LEVEL OF EDUCATION</td>
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<td></td>
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<tr>
<td>High school diploma/GED</td>
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<td>0</td>
<td>0</td>
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<tr>
<td>Associate's degree</td>
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<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Bachelor's degree</td>
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<td>12</td>
<td>6.3</td>
</tr>
<tr>
<td>Master's or Education specialist</td>
<td></td>
<td>175</td>
<td>91.6</td>
</tr>
<tr>
<td>Doctorate or Professional degree</td>
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<td>4</td>
<td>2.1</td>
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<td>UNIVERSITY TYPE</td>
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<tr>
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<td></td>
<td>98</td>
<td>51.6</td>
</tr>
<tr>
<td>Public, 2-year</td>
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<td>4</td>
<td>2.1</td>
</tr>
<tr>
<td>Public, 4-year</td>
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<td>94</td>
<td>49.5</td>
</tr>
<tr>
<td>Private</td>
<td></td>
<td>92</td>
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<tr>
<td>Private, 2-year</td>
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<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Private, 4-year</td>
<td></td>
<td>92</td>
<td>48.4</td>
</tr>
<tr>
<td>UNIVERSITY SIZE</td>
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</tr>
<tr>
<td>Small, &lt; 2,500 students</td>
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<td>48</td>
<td>25.1</td>
</tr>
<tr>
<td>Medium, 2,500-9,999 students</td>
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<td>52</td>
<td>27.2</td>
</tr>
<tr>
<td>2,500-4,999 students</td>
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<tr>
<td>5,000-9,999 students</td>
<td></td>
<td>23</td>
<td>12</td>
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<tr>
<td>Large, 10,000 or more students</td>
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<td>91</td>
<td>47.6</td>
</tr>
<tr>
<td>10,000-19,999 students</td>
<td></td>
<td>35</td>
<td>18.3</td>
</tr>
<tr>
<td>20,000 or more students</td>
<td></td>
<td>56</td>
<td>29.3</td>
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</table>

In addition to the variables directly related to the five research questions, Table 4 presents descriptive statistics for demographic variables of secondary interest in the study. Fifty-eight percent of respondents classified their master’s program, if completed, as counseling-based, while forty-four percent classified it as administrative-based. Raters completed an average of about one undergraduate counseling class and about two and a half graduate counseling classes. The overwhelming majority of respondents’ country of origin
was the United States (97.3%) while one respondent each originated from Austria, Jamaica, Lebanon, Sudan, and the United Kingdom. Likewise, one respondent currently works in Qatar, with the rest (99.5%) employed in the United States. Almost half of respondents are employed in residence life (48.7%), followed by academic advising (10.5%), student activities (7.3%), career services (5.2%), admissions/enrollment management (4.2%), and leadership development (3.1%). Four respondents (2.1%) were represented in each of the commuter services, financial aid, Greek affairs, judicial affairs, orientation and service learning areas, while three respondents (1.6%) were represented in each of the areas of GLBT services, multicultural affairs, student affairs administration, and student union. One respondent (0.5%) was represented in areas of adult learner services, counseling, and international students. Disability services, food services, graduate program preparation, health/drug/alcohol, intramural/rec sports, religious programs, teaching faculty, and women's resources were not represented on the survey.
Table 4

Descriptive Statistics for Additional Demographic Variables of Interest

<table>
<thead>
<tr>
<th>Continuous Variable</th>
<th>Total</th>
<th>$M$</th>
<th>$SD$</th>
<th>range</th>
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</thead>
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<td>COUNSELING CLASSES</td>
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<td></td>
</tr>
<tr>
<td>Undergraduate</td>
<td></td>
<td>0.91</td>
<td>1.74</td>
<td>0-10</td>
</tr>
<tr>
<td>Graduate</td>
<td></td>
<td>2.58</td>
<td>4.0</td>
<td>0-30</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Categorical Variable</th>
<th>Total</th>
<th>$n$</th>
<th>%</th>
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<tbody>
<tr>
<td>GRADUATE PROGRAM</td>
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<tr>
<td>Counseling-based</td>
<td>112</td>
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<tr>
<td>Administrative-based</td>
<td>85</td>
<td>44.5</td>
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<td>COUNTRY OF ORIGIN</td>
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<td></td>
</tr>
<tr>
<td>USA</td>
<td>178</td>
<td>97.3</td>
<td></td>
</tr>
<tr>
<td>Austria</td>
<td>1</td>
<td>0.6</td>
<td></td>
</tr>
<tr>
<td>Jamaica</td>
<td>1</td>
<td>0.6</td>
<td></td>
</tr>
<tr>
<td>Lebanon</td>
<td>1</td>
<td>0.6</td>
<td></td>
</tr>
<tr>
<td>Sudan</td>
<td>1</td>
<td>0.6</td>
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</tr>
<tr>
<td>UK</td>
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<td>0.6</td>
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</tr>
<tr>
<td>COUNTRY OF EMPLOYMENT</td>
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<tr>
<td>USA</td>
<td>183</td>
<td>99.5</td>
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<tr>
<td>Qatar</td>
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<td>0.5</td>
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<tr>
<td>JOB STATUS</td>
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<td>Full-time</td>
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<td>98.4</td>
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<tr>
<td>Part-time</td>
<td>3</td>
<td>1.6</td>
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<tr>
<td>JOB FUNCTION</td>
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<tr>
<td>Residence Life</td>
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<td>48.7</td>
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<tr>
<td>Academic Advising</td>
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<td>10.5</td>
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</tr>
<tr>
<td>Student Activities</td>
<td>14</td>
<td>7.3</td>
<td></td>
</tr>
<tr>
<td>Career Services</td>
<td>10</td>
<td>5.2</td>
<td></td>
</tr>
<tr>
<td>Admissions/Enrollment Mgmt.</td>
<td>8</td>
<td>4.2</td>
<td></td>
</tr>
<tr>
<td>Leadership Development</td>
<td>6</td>
<td>3.1</td>
<td></td>
</tr>
<tr>
<td>Commuter Services</td>
<td>4</td>
<td>2.1</td>
<td></td>
</tr>
<tr>
<td>Financial Aid</td>
<td>4</td>
<td>2.1</td>
<td></td>
</tr>
<tr>
<td>Greek Affairs</td>
<td>4</td>
<td>2.1</td>
<td></td>
</tr>
<tr>
<td>Judicial Affairs</td>
<td>4</td>
<td>2.1</td>
<td></td>
</tr>
<tr>
<td>Orientation</td>
<td>4</td>
<td>2.1</td>
<td></td>
</tr>
<tr>
<td>Service Learning</td>
<td>4</td>
<td>2.1</td>
<td></td>
</tr>
<tr>
<td>GLBT Services</td>
<td>3</td>
<td>1.6</td>
<td></td>
</tr>
<tr>
<td>Multicultural Affairs</td>
<td>3</td>
<td>1.6</td>
<td></td>
</tr>
<tr>
<td>Student Affairs Administration</td>
<td>3</td>
<td>1.6</td>
<td></td>
</tr>
<tr>
<td>Student Union</td>
<td>3</td>
<td>1.6</td>
<td></td>
</tr>
<tr>
<td>Adult Learner Services</td>
<td>1</td>
<td>0.5</td>
<td></td>
</tr>
<tr>
<td>Counseling</td>
<td>1</td>
<td>0.5</td>
<td></td>
</tr>
<tr>
<td>International Students</td>
<td>1</td>
<td>0.5</td>
<td></td>
</tr>
<tr>
<td>Other**</td>
<td>0</td>
<td>0</td>
<td></td>
</tr>
</tbody>
</table>

*Six participants’ rated graduate programs as both counseling and administrative.
**Other job functions not represented = Disability Services, Food Services, Graduate Program Preparation, Health/Drug/Alcohol, Intramural/Rec Sports, Religious Programs, Teaching Faculty, and Women’s Resources.
Table 5 presents descriptive statistics for dependent variables. Number (n) and percentages (%) are reported for categorical variables, while number (n), range, mean (M), and standard deviation (SD) are reported for interval-level variables. Again, the five dependent variables were scales created by summing several survey items, and therefore, the mean of each dependent variable is the average of these sums across respondents. The fear and social distance variable was the sum of four items (#C16, C22, C31, and C36) scored on a four-point Likert scale; confidence in ability to help included five items (#C10 through #C14) scored on a five-point scale. The awareness of campus services variable was created by summing responses to two items (#B1 and #B2) using a five-point scale, while referrals to campus services included seven items (#D1 to D7) on a five-point scale. The knowledge of psychological disabilities variable consisted of ten items (#B3 to #B12) using a four-point scale. Means of the fear and confidence scales were not reported in Becker et al. (2002) and thus cannot be reported or compared here.

Table 5

Descriptive Statistics for Dependent Variables

<table>
<thead>
<tr>
<th>Dependent</th>
<th>M</th>
<th>SD</th>
<th>range</th>
<th>n</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fear towards students with mental illness</td>
<td>6.91</td>
<td>2.07</td>
<td>4-11</td>
<td>188</td>
</tr>
<tr>
<td>Confidence in ability to help students with mental illness</td>
<td>15.17</td>
<td>2.75</td>
<td>6-23</td>
<td>195</td>
</tr>
<tr>
<td>Awareness of campus mental health and disability services</td>
<td>6.98</td>
<td>1.27</td>
<td>3-9</td>
<td>203</td>
</tr>
<tr>
<td>Referrals to campus mental health and disability services</td>
<td>24.38</td>
<td>4.25</td>
<td>14-35</td>
<td>188</td>
</tr>
<tr>
<td>Knowledge of psychological disabilities</td>
<td>26.43</td>
<td>5.41</td>
<td>13-40</td>
<td>201</td>
</tr>
</tbody>
</table>
Tables 6 through 10 below outline descriptive statistics for additional variables of interest. Table 6 presents the proportion of respondents who believed various percentages (%) of students displayed behaviors indicative of mental illness in a typical week. Two-thirds of raters (66.7%) believed between 1-5% of students displayed these behaviors, followed by 17.6% of raters who believed 6-10% of students do so; 4.9% of raters placed the rating at 11-20%, and 2.5% placed it at 21-40%. Almost no respondents (0.5%) believed that 41% or more of students displayed symptoms of mental illness in a typical week, and 7.8% believed no students did.

Table 6

*Frequency of Observed Symptoms of Mental Illness*

<table>
<thead>
<tr>
<th>Students displaying one or more symptoms of MI in a typical week</th>
<th>Proportion of respondents</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%</td>
<td>7.8%</td>
</tr>
<tr>
<td>1-5%</td>
<td>66.7%</td>
</tr>
<tr>
<td>6-10%</td>
<td>17.6%</td>
</tr>
<tr>
<td>11-20%</td>
<td>4.9%</td>
</tr>
<tr>
<td>21-40%</td>
<td>2.5%</td>
</tr>
<tr>
<td>41% and over</td>
<td>0.5%</td>
</tr>
</tbody>
</table>

Table 7 presents respondents’ levels of familiarity with various psychological disorders. Raters are least familiar with schizophrenia (only 28.3% are familiar or very familiar) and personality disorder (28.6% familiar/very familiar), followed by paranoia (29.9% familiar/very familiar). Raters are most familiar with substance abuse (86.4% familiar/very familiar), depression (85% familiar/very familiar), and anxiety (61.7% familiar/very familiar). Roughly half of raters are familiar or very familiar with ADHD (55.6%), eating disorder (55%), bipolar disorder (52.7%), and PTSD (45.6%).
Table 7

Familiarity with Psychological Disorders

<table>
<thead>
<tr>
<th>Disorder</th>
<th>Percentage (%) of Respondents with Ratings of</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Not familiar</td>
</tr>
<tr>
<td>ADHD</td>
<td>1.0</td>
</tr>
<tr>
<td>Anxiety</td>
<td>5.8</td>
</tr>
<tr>
<td>Bipolar Disorder</td>
<td>4.4</td>
</tr>
<tr>
<td>Depression</td>
<td>0.5</td>
</tr>
<tr>
<td>Personality Disorder</td>
<td>20.4</td>
</tr>
<tr>
<td>Paranoia</td>
<td>22.1</td>
</tr>
<tr>
<td>Schizophrenia</td>
<td>23.9</td>
</tr>
<tr>
<td>Eating Disorder</td>
<td>0.5</td>
</tr>
<tr>
<td>PTSD</td>
<td>10.7</td>
</tr>
<tr>
<td>Substance Abuse</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Table 8 presents response patterns to select survey items of particular relevance to the study and of interest to the author. Items C1, C15, C30, C33, and C35 relate to general knowledge about mental illness. Items C2 and C22 relate to fundamental attitudes about college students with mental illness, and items C37 and C38 relate to the need for additional education on the topic of mental illness. Regarding attitudes towards mental illness, of concern are the 3.1% that agree or strongly agree that students with mental illness should not be allowed to attend classes, the 1.1% that agree mental illness is something a person chooses, and the 13.4% that believe college students with mental illness only rarely or sometimes succeed in college. With respect to knowledge of mental illness, 19.6% believe students with mental illness never or rarely are considered disabled and eligible for ADA benefits, and 21.2% believe mental illnesses are never or rarely genetically transmitted. Regarding the need for professional development, 59.4% disagreed or strongly disagreed that part of their degree training was to learn how to interact with students with mental illness, 37.2% agreed or strongly agreed they had limited knowledge about mental illness and
symptoms, and only a quarter (25.1%) agreed/strongly agreed educational efforts for staff and administrators at their campus regarding mental illness were adequate. An overwhelming 90.6% agreed/strongly agreed to the desire for professional development on the topic of college students with mental illness.

Table 8

Responses to Selected Survey Items

<table>
<thead>
<tr>
<th>Survey Item</th>
<th>Percentage (%) of Respondents with Ratings of</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Never</td>
</tr>
<tr>
<td>C1. Students with MI are disabled and eligible for ADA benefits/accommodations.</td>
<td>3.5</td>
</tr>
<tr>
<td>C2. Students with MI can succeed in college.</td>
<td>0</td>
</tr>
<tr>
<td>C15. Mental illnesses are genetically transmitted.</td>
<td>4.0</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Survey Item</th>
<th>Percentage (%) of Respondents with Ratings of</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Strongly Disagree</td>
</tr>
<tr>
<td>C22. Students with MI should not be allowed to attend classes.</td>
<td>56.0</td>
</tr>
<tr>
<td>C30. MI is something a person chooses.</td>
<td>86.2</td>
</tr>
<tr>
<td>C33. I have limited knowledge about MI and their symptoms.</td>
<td>13.6</td>
</tr>
<tr>
<td>C35. Part of my degree training was to learn how to interact with students with MI.</td>
<td>16.6</td>
</tr>
<tr>
<td>C37. Educational efforts for staff and administration at my university regarding college students with MI are adequate.</td>
<td>24.1</td>
</tr>
<tr>
<td>C38. I desire professional development on the topic of college students with MI.</td>
<td>0.5</td>
</tr>
</tbody>
</table>

Table 9 summarizes the various sources through which respondents have gained knowledge about mental illness. Most respondents (87.9%) gained knowledge through formal education and training, 76.2% through family, friends, and coworkers as well as professional experience, and two-thirds (66%) have gained knowledge through media. One-half reported personal experience with mental illness.
Table 9

*Percentage (%) of Respondents* Having Gained Knowledge about Mental Illness through Various Sources

<table>
<thead>
<tr>
<th>Source</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formal education/training on MI</td>
<td>87.9</td>
</tr>
<tr>
<td>Personal experience with MI</td>
<td>50</td>
</tr>
<tr>
<td>Family, friends, and co-workers’ experience with MI</td>
<td>76.2</td>
</tr>
<tr>
<td>Professional experience with MI</td>
<td>76.2</td>
</tr>
<tr>
<td>Media (TV, radio, newspaper, magazine, books, internet)</td>
<td>66.0</td>
</tr>
</tbody>
</table>

*Respondents selected one or more categories*

Table 10 presents respondents’ preferred formats for information on mental illness. Almost all (91.1%) prefer workshops on the topic through conferences or staff development trainings, followed by talking to a specialist (60.7%). Less than half (40.3%) prefer a video, 29.3% prefer newsletters, and only 19.4% prefer brochures.

Table 10

*Percentage (%) of Respondents* with Preferred Formats for Information about Mental Illness

<table>
<thead>
<tr>
<th>Format</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workshop (conference, staff development training)</td>
<td>91.1</td>
</tr>
<tr>
<td>Video</td>
<td>40.3</td>
</tr>
<tr>
<td>Brochures</td>
<td>19.4</td>
</tr>
<tr>
<td>Newsletters</td>
<td>29.3</td>
</tr>
<tr>
<td>Talking to a specialist</td>
<td>60.7</td>
</tr>
</tbody>
</table>

*Respondents selected one or more categories.*

**Correlations**

A correlation matrix between all variables in the study indicated that 21 of the 91 correlation coefficients were statistically significant at the $p < .05$ level or less. Table 11 presents the correlation matrix.
Table 11

*Correlations Among Variables*

<table>
<thead>
<tr>
<th></th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
<th>13</th>
<th>14</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Gender</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Age</td>
<td>.03</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. White or non-White</td>
<td>-.03</td>
<td>-.18*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Master’s degree</td>
<td>-.03</td>
<td>-.04</td>
<td>.08</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Doctoral degree</td>
<td>.09</td>
<td>.21**</td>
<td>-.14</td>
<td>-.48**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Public or private</td>
<td>.16*</td>
<td>-.04</td>
<td>.07</td>
<td>-.09</td>
<td>.01</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Medium enrollment</td>
<td>-.04</td>
<td>-.22**</td>
<td>.10</td>
<td>.02</td>
<td>-.01</td>
<td>.19*</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Large enrollment</td>
<td>-.11</td>
<td>.13</td>
<td>-.08</td>
<td>.14</td>
<td>-.07</td>
<td>-.61**</td>
<td>-.58**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Years of experience</td>
<td>-.03</td>
<td>.52**</td>
<td>-.16*</td>
<td>-.13</td>
<td>.11</td>
<td>-.06</td>
<td>-.03</td>
<td>.06</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Awareness</td>
<td>.03</td>
<td>.16*</td>
<td>-.03</td>
<td>.11</td>
<td>.03</td>
<td>.05</td>
<td>-.06</td>
<td>-.08</td>
<td>.24**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Confidence</td>
<td>.03</td>
<td>.02</td>
<td>.04</td>
<td>.12</td>
<td>.02</td>
<td>.06</td>
<td>.12</td>
<td>-.11</td>
<td>.10</td>
<td>.27**</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Fear</td>
<td>-.01</td>
<td>.01</td>
<td>-.16*</td>
<td>.02</td>
<td>-.09</td>
<td>-.09</td>
<td>-.06</td>
<td>.22**</td>
<td>.03</td>
<td>-.20**</td>
<td>-.27**</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Referral</td>
<td>.10</td>
<td>-.07</td>
<td>.00</td>
<td>-.05</td>
<td>-.06</td>
<td>-.03</td>
<td>-.09</td>
<td>.12</td>
<td>-.23**</td>
<td>-.11</td>
<td>-.03</td>
<td>-.10</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* *p < 0.05 level (2-tailed), **p < 0.01 (2-tailed).*
The intercorrelations ranged from small to large, with significant relationships detailed here. In sum, relationships between independent were as would be expected. Despite several moderate relationships, tolerance and variance inflation factor (VIF) measures did not suggest the presence of multicollinearity. The variable for large university (compared to small) was associated with type of university—public or private \((r = .61, p < .01)\) such that those respondents working in public universities also tended to work in large ones with enrollment of 10,000 students or more. Females were associated with working in private universities \((r = .16, p < .05)\). Non-White respondents were associated with older age \((r = - .18, p < .05)\) and fewer years of experience \((r = - .16, p < .05)\). Age was related to years of experience \((r = .52, p < .01)\), and to having completed a doctoral degree, compared to a bachelor’s \((r = .21, p < .01)\). Years of experience was associated with referrals to campus services \((r = - .23, p < .01)\). Across the dependent variables, confidence and fear were inversely correlated \((r = - .27, p < .01)\), providing further evidence of their divergent validity. Also, confidence was significantly correlated with awareness of campus services \((r = .28, p < .01)\), and knowledge of psychological disabilities \((r = .45, p < .01)\). Fear was associated with non-Whites \((r = - .16, p < .05)\), large universities \((r = .22, p < .01)\), reduced awareness of campus services \((r = - .20, p < .01)\), and reduced knowledge of psychological disabilities \((r = - .26, p < .01)\). Awareness of campus services was associated with age \((r = .16, p < .05)\), years experience \((r = .24, p < .01)\), and knowledge of psychological disabilities \((r = .31, p < .01)\).

Reliability Analysis
Cronbach’s alpha (α) reliability coefficients were calculated for the five dependent variable scales and are presented in Table 12. Values indicated the reliability of one scale in the current study was very good, two were acceptable, one was borderline, and one did not demonstrate adequate reliability. The reliability for knowledge of psychological disabilities was excellent, α = .89, while reliabilities for the confidence and referrals scales were also acceptable, α = .71 and α = .70. Reliability for awareness of campus services was borderline, α = .63, while reliability for fear was not adequate, α = .47. Since the consistency of the fear scale was adequate in two prior studies (Becker et al., 2002; Brockelman et al., 2006), regression analyses were conducted using all five dependent variables, with very tentative interpretation of results for fear and awareness in chapter five.

Table 12

*Cronbach’s Alpha Coefficients for Dependent Variable Scales*

<table>
<thead>
<tr>
<th>Variable</th>
<th>Number of items</th>
<th>α</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fear towards students with mental illness</td>
<td>4</td>
<td>.47</td>
</tr>
<tr>
<td>Confidence in ability to help student with mental illness</td>
<td>5</td>
<td>.71</td>
</tr>
<tr>
<td>Awareness of campus mental health and disability services</td>
<td>2</td>
<td>.63</td>
</tr>
<tr>
<td>Referrals to campus mental health and disability services</td>
<td>7</td>
<td>.70</td>
</tr>
<tr>
<td>Knowledge of psychological disabilities</td>
<td>10</td>
<td>.89</td>
</tr>
</tbody>
</table>

**Assumptions Underlying Use of Multiple Regression**

An examination of the residual histogram, P-P plot, and scatterplot indicated that the assumptions of normality, linearity and homoscedasticity were met for four of the five dependent variables: fear, confidence, referrals to campus services, and knowledge of
psychological disabilities. Tolerance and the Variance Inflation Factor (VIF) were acceptable for all five variables, indicating the absence of multicollinearity.

The assumptions of normality, linearity and homoscedasticity were not met for the dependent variable awareness of campus services. Non-normality was reflected by negative skew of -1.056, slightly higher than acceptable levels < |0.8|. Tolerance and the Variance Inflation Factor (VIF) were acceptable, indicating the absence of multicollinearity.

A review of the minimum, maximum, and range for awareness of campus services did not indicate the presence of outliers or potentially miscoded responses. Cook’s distances for all data points also did not suggest any influential data points. The variable, a sum of self-ratings of knowledge on a four-point Likert scale of familiarity with (a) campus mental health and (b) campus disability services, had a minimum of 3, maximum of 9, mode of 8 and scale mean of $M = 6.98$. Mean familiarity with mental health services was $M = 3.68$ and mean familiarity with campus disability services was $M = 3.31$. Although the data appeared to be an accurate representation of respondents’ self-rating of awareness of mental health and disability services, the non-normality and borderline reliability ($\alpha = .63$) were of concern.

Reflection of data and subsequent transformation are recommended in non-normal variables with negative skew (Tabachnick & Fidell, 2001). Following the reflection method of subtracting values from one more than the highest value, square root, log, and inverse transformations were implemented. None substantially improved normality of residuals.

Cohen (1977) noted that F tests in multiple regression are robust “so that moderate departures from...assumptions will have generally little effect on the validity of the null hypothesis tests” (p. 408). Pedhazur (1977) concurs that “regression analysis is generally robust in the face of departures from assumptions, except for measurement error and
specification errors” (p. 34). In view of these comments and results of data transformation, a regression using the non-transformed awareness of campus services variable was conducted, with discussion of results taking into consideration the borderline reliability and non-normality of residuals.

### Multiple Regression Analyses

Power—the potential to detect significant effects—was a concern in the present study due to the number of separate dummy variables required for the multiple categories of four of the independent variables. In addition to the variables gender, age and years of experience, four dummy variables would be required to represent ethnicity, two for education, two for employing institution type, and four for employing institution size, for a total of 15 predictors representing the seven independent variables. Using minimum sample size estimates of $N \geq 50 + 8(p)$ (Green, 1991) or 15 responses per independent variable (Pedhazur, 1997), an $N$ in the range of 170 to 225 participants would be required to detect significant relationships. Since the 206 respondents did not answer all questions, several variables in the current study had an $N$ as low as 167 which did not meet needed sample sizes.

To maximize power in the current study, several levels of independent variables were collapsed so that the seven independent variables would be represented by nine predictors, meeting sample size estimates from 122 (Green, 1991) to 135 participants (Pedhazur, 1997). No participants held less than a college degree, so the coding scheme for level of education was set at bachelor’s degree = 0, master’s degree = 1, and doctoral or professional degree = 2, thus requiring only two dummy variables. The six response choices for ethnicity were
collapsed into non-White = 0 or White = 1. One respondent self-classified as transgender, so for simplicity of statistical analysis and reporting only two gender categories were used, male = 0 and female = 1; data from the transgender respondent was not used in statistical analyses involving the gender variable. The four categories of employing institution type were collapsed into public = 0 or private = 1, and the five employing institution enrollment choices were collapsed into small = 0, medium = 1, or large enrollment = 2. The small (0 - 2,499 students), medium (2,500 - 9,999 students) and large (10,000 and over students) enrollment categories better align with the Carnegie Foundation for the Advancement of Teaching’s size classifications (n.d.) and reduce number of dummies to two.

**Research Question 1**

H1: There is a significant predictive relationship among the seven demographic variables in entry-level administrators (gender, age, ethnicity, level of education, type of university, enrollment size, and years’ experience) on the dependent variable fear towards students with mental illness.

As shown in Table 13, the results of a simultaneous regression of the seven predictor demographic variables on fear was non-significant, \( F(9,155) = 1.497, p = .154 \). Of the seven predictors, employment at a large institution with enrollment over 10,000—compared to a small institution with less than 2,500 students—significantly predicted fear, \( p < .01 \). Of course, the significance of this predictor must be viewed in light of the poor reliability of the fear variable (\( \alpha = .47 \)) demonstrated in the current study.
### Table 13

**Simultaneous Regression of Demographic Variables on Fear (N = 165)**

<table>
<thead>
<tr>
<th>Model</th>
<th>$R$</th>
<th>$R^2$</th>
<th>Adj. $R^2$</th>
<th>$F$</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.283</td>
<td>.080</td>
<td>.027</td>
<td>1.497</td>
<td>.154</td>
</tr>
</tbody>
</table>

**Predictors**

<table>
<thead>
<tr>
<th></th>
<th>Stan. $\beta$</th>
<th>$t$</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>.059</td>
<td>.747</td>
<td>.456</td>
</tr>
<tr>
<td>Age</td>
<td>.015</td>
<td>.157</td>
<td>.876</td>
</tr>
<tr>
<td>Ethnicity (White or non-White)</td>
<td>-.124</td>
<td>-1.555</td>
<td>.122</td>
</tr>
<tr>
<td>Master’s (dummy vs. bachelor’s)</td>
<td>-.097</td>
<td>-1.059</td>
<td>.291</td>
</tr>
<tr>
<td>Doctorate (dummy vs. bachelor’s)</td>
<td>-.136</td>
<td>-1.490</td>
<td>.138</td>
</tr>
<tr>
<td>University type (public or private)</td>
<td>.092</td>
<td>.925</td>
<td>.357</td>
</tr>
<tr>
<td>Medium enrollment (dummy vs. small)</td>
<td>.164</td>
<td>1.554</td>
<td>.122</td>
</tr>
<tr>
<td>Large enrollment (dummy vs. small)</td>
<td>.351</td>
<td>2.771</td>
<td>.006**</td>
</tr>
<tr>
<td>Years experience</td>
<td>-.031</td>
<td>-.337</td>
<td>.736</td>
</tr>
</tbody>
</table>

* $p < 0.05$, ** $p < 0.01$

**Research Question 2**

$H_2$: There is a significant predictive relationship among the seven demographic variables in entry-level administrators (gender, age, ethnicity, level of education, type of university, enrollment size, and years' experience) on the dependent variable confidence in ability to help students with mental illness.

As shown in Table 14, the results of a simultaneous regression of the seven predictor demographic variables on confidence was non-significant, $F(9,152) = 1.385, p = .199$. Of the seven predictors, having completed a master’s degree—compared to only a bachelor’s degree—significantly predicted confidence, $p < .05$. 

---

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Table 14

*Simultaneous Regression of Demographic Variables on Confidence (N = 162)*

<table>
<thead>
<tr>
<th>Model</th>
<th>$R$</th>
<th>$R^2$</th>
<th>Adj. $R^2$</th>
<th>$F$</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.275</td>
<td>.076</td>
<td>.021</td>
<td>1.385</td>
<td>.199</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Stan. $\beta$</th>
<th>$t$</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>.038</td>
<td>.481</td>
<td>.631</td>
</tr>
<tr>
<td>Age</td>
<td>-.020</td>
<td>-.301</td>
<td>.764</td>
</tr>
<tr>
<td>Ethnicity (White or non-White)</td>
<td>.087</td>
<td>1.087</td>
<td>.279</td>
</tr>
<tr>
<td>Master’s (dummy vs. bachelor’s)</td>
<td>.221</td>
<td>2.406</td>
<td>.017*</td>
</tr>
<tr>
<td>Doctorate (dummy vs. bachelor’s)</td>
<td>.109</td>
<td>1.184</td>
<td>.238</td>
</tr>
<tr>
<td>University type (public or private)</td>
<td>.002</td>
<td>.019</td>
<td>.985</td>
</tr>
<tr>
<td>Medium enrollment (dummy vs. small)</td>
<td>.046</td>
<td>.440</td>
<td>.660</td>
</tr>
<tr>
<td>Large enrollment (dummy vs. small)</td>
<td>-.125</td>
<td>-.974</td>
<td>.332</td>
</tr>
<tr>
<td>Years experience</td>
<td>.143</td>
<td>1.547</td>
<td>.124</td>
</tr>
</tbody>
</table>

* $p < 0.05$, ** $p < 0.01$

*Research Question 3*

$H_3$: There is a significant predictive relationship among the seven demographic variables in entry-level administrators (gender, age, ethnicity, level of education, type of university, enrollment size, and years’ experience) on the dependent variable awareness of campus mental health and disability services.

As shown in Table 15, the results of a simultaneous regression of the seven predictor demographic variables on awareness of campus services was non-significant, $F(9, 156) = 2.369, p = .015$. Thus, the model was significant at the $p < .05$ level but did not meet significance at the Bonferroni-corrected $p < .01$ level. As noted earlier, correction was made to the significance level by taking the standard $\alpha$ of .05 and dividing by 5, the total number of simultaneous regressions performed in the study, and resulting in an $\alpha$ of .01 for each test.

Of the seven predictors, three were significant: years of experience ($p < .01$), employment at a large institution with enrollment over 10,000 students when compared to a small institution
with less than 2,500 students \( (p < .05) \), and having earned a master’s degree, compared to only a bachelor’s degree \( (p < .01) \).

Table 15

*Simultaneous Regression of Demographic Variables on Awareness of Campus Services \((N = 166)\)*

<table>
<thead>
<tr>
<th>Model</th>
<th>( R )</th>
<th>( R^2 )</th>
<th>Adj. ( R^2 )</th>
<th>( F )</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.347</td>
<td>.120</td>
<td>.069</td>
<td>2.369</td>
<td>.015</td>
</tr>
</tbody>
</table>

**Predictors**

<table>
<thead>
<tr>
<th></th>
<th>Stan. ( \beta )</th>
<th>( t )</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>.028</td>
<td>.368</td>
<td>.714</td>
</tr>
<tr>
<td>Age</td>
<td>.021</td>
<td>.227</td>
<td>.821</td>
</tr>
<tr>
<td>Ethnicity (White or non-White)</td>
<td>.021</td>
<td>.272</td>
<td>.786</td>
</tr>
<tr>
<td>Master’s (dummy vs. bachelor’s)</td>
<td>.233</td>
<td>2.632</td>
<td>.009**</td>
</tr>
<tr>
<td>Doctorate (dummy vs. bachelor’s)</td>
<td>.092</td>
<td>1.040</td>
<td>.300</td>
</tr>
<tr>
<td>University type (public or private)</td>
<td>-.038</td>
<td>-.390</td>
<td>.697</td>
</tr>
<tr>
<td>Medium enrollment (dummy vs. small)</td>
<td>-.189</td>
<td>-1.852</td>
<td>.066</td>
</tr>
<tr>
<td>Large enrollment (dummy vs. small)</td>
<td>-.264</td>
<td>-2.147</td>
<td>.033*</td>
</tr>
<tr>
<td>Years experience</td>
<td>.246</td>
<td>2.767</td>
<td>.006**</td>
</tr>
</tbody>
</table>

* \( p < 0.05 \), ** \( p < 0.01 \)

**Research Question 4**

H₄: There is a significant predictive relationship among the seven demographic variables in entry-level administrators (gender, age, ethnicity, level of education, type of university, enrollment size, and years’ experience) on the dependent variable referrals to campus mental health and disability services.

As shown in Table 16, the results of a simultaneous regression of the seven predictor demographic variables on referrals to campus services was non-significant, \( F(9,154) = 1.409 \), \( p = .189 \). Of the seven predictors, years of experience significantly predicted referrals to campus services, \( p < .05 \).
Table 16

Simultaneous Regression of Demographic Variables on Referrals to Campus Services (N = 164)

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R²</th>
<th>Adj. R²</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.276</td>
<td>.076</td>
<td>.022</td>
<td>1.409</td>
<td>.189</td>
</tr>
</tbody>
</table>

Predictors

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Stan. β</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>.128</td>
<td>1.618</td>
<td>.108</td>
</tr>
<tr>
<td>Age</td>
<td>.030</td>
<td>.318</td>
<td>.751</td>
</tr>
<tr>
<td>Ethnicity (White or non-White)</td>
<td>-.057</td>
<td>-.709</td>
<td>.479</td>
</tr>
<tr>
<td>Master's (dummy vs. bachelor's)</td>
<td>-.149</td>
<td>-1.603</td>
<td>.111</td>
</tr>
<tr>
<td>Doctorate (dummy vs. bachelor's)</td>
<td>-.129</td>
<td>-1.394</td>
<td>.165</td>
</tr>
<tr>
<td>University type (public or private)</td>
<td>.038</td>
<td>.379</td>
<td>.706</td>
</tr>
<tr>
<td>Medium enrollment (dummy vs. small)</td>
<td>.046</td>
<td>.437</td>
<td>.663</td>
</tr>
<tr>
<td>Large enrollment (dummy vs. small)</td>
<td>.166</td>
<td>1.310</td>
<td>.192</td>
</tr>
<tr>
<td>Years experience</td>
<td>-.205</td>
<td>-2.232</td>
<td>.027*</td>
</tr>
</tbody>
</table>

*p < 0.05, ** p < 0.01

Research Question 5

H₅: There is a significant predictive relationship among the seven demographic variables in entry-level administrators (gender, age, ethnicity, level of education, type of university, enrollment size, and years’ experience) on the dependent variable knowledge of psychological disabilities.

As shown in Table 17, the results of a simultaneous regression of the seven predictor demographic variables on knowledge of psychological disabilities was non-significant, F(9,153) = 1.967, p = .047. The model, while significant at the p < .05 level, was not significant at the Bonferroni-corrected p < .01 level. Again, correction was made to the significance level by taking the standard α of .05 and dividing by 5, the total number of simultaneous regressions performed, resulting in an α of .01 for each test. Of the seven predictors, none significantly predicted knowledge of psychological disabilities.
Table 17

*Simultaneous Regression of Demographic Variables on Knowledge of Psychological Disabilities (N = 163)*

<table>
<thead>
<tr>
<th>Model</th>
<th>R</th>
<th>R²</th>
<th>Adj. R²</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>.322</td>
<td>.104</td>
<td>.051</td>
<td>1.967</td>
<td>.047</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Predictors</th>
<th>Stan. β</th>
<th>t</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>.153</td>
<td>1.957</td>
<td>.052</td>
</tr>
<tr>
<td>Age</td>
<td>.101</td>
<td>1.059</td>
<td>.291</td>
</tr>
<tr>
<td>Ethnicity (White or non-White)</td>
<td>.076</td>
<td>.958</td>
<td>.340</td>
</tr>
<tr>
<td>Master’s (dummy vs. bachelor’s)</td>
<td>.120</td>
<td>1.330</td>
<td>.185</td>
</tr>
<tr>
<td>Doctorate (dummy vs. bachelor’s)</td>
<td>-.098</td>
<td>-1.086</td>
<td>.279</td>
</tr>
<tr>
<td>University type (public or private)</td>
<td>.084</td>
<td>.846</td>
<td>.399</td>
</tr>
<tr>
<td>Medium enrollment (dummy vs. small)</td>
<td>.099</td>
<td>.087</td>
<td>.931</td>
</tr>
<tr>
<td>Large enrollment (dummy vs. small)</td>
<td>-.071</td>
<td>-.570</td>
<td>.570</td>
</tr>
<tr>
<td>Years experience</td>
<td>.133</td>
<td>1.458</td>
<td>.147</td>
</tr>
</tbody>
</table>

Table 18 summarizes the results of the five simultaneous regressions. None of the five simultaneous regressions were significant at the p < .01 level, while several predictors were significant at the p < .05 and p < .01 levels.
Table 18

Summary of Simultaneous Regressions

<table>
<thead>
<tr>
<th>Criterion Variable</th>
<th>$R$</th>
<th>$R^2$</th>
<th>Adj. $R^2$</th>
<th>$F$</th>
<th>Significant Predictors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fear towards students with mental illness</td>
<td>.283</td>
<td>.080</td>
<td>.027</td>
<td>1.497</td>
<td>Large size**</td>
</tr>
<tr>
<td>Confidence in ability to help students with mental illness</td>
<td>.275</td>
<td>.076</td>
<td>.021</td>
<td>1.385</td>
<td>Master’s*</td>
</tr>
<tr>
<td>Awareness of campus mental health and disability services</td>
<td>.347</td>
<td>.120</td>
<td>.069</td>
<td>2.369</td>
<td>Master’s**, Years experience**, Large size*</td>
</tr>
<tr>
<td>Referrals to campus mental health and disability services</td>
<td>.276</td>
<td>.076</td>
<td>.0761</td>
<td>.409</td>
<td>Years experience*</td>
</tr>
<tr>
<td>Knowledge of psychological disabilities</td>
<td>.322</td>
<td>.104</td>
<td>.051</td>
<td>1.967</td>
<td>(none)</td>
</tr>
</tbody>
</table>

* $p < 0.05$, ** $p < 0.01$

Summary

An electronic survey of the Student Affairs Mental Illness Awareness Survey (SAMIAS), an adaptation by the author of the Mental Illness Awareness Survey (MIAS) by Becker et al. (2002), was administered to 206 entry-level student affairs professionals in a pilot study and to members of the American College Personnel Association (ACPA). The study examined the effect of seven demographic independent variables: (a) gender, (b) age, (c) ethnicity, (d) education level, (e) type and (f) size of employing university, and (g) years of experience on five dependent variables: (a) fear and social distance, (b) confidence in ability to help, (c) awareness of campus mental health and disability services, (d) referrals to
campus mental health and disability services, and (e) knowledge of psychological disabilities. No significant differences were found on t-tests comparing the pilot and main ACPA study groups on any of the five dependent variables.

Results of simultaneous regressions revealed that the independent variables failed to significantly predict any of the five dependent variables at the Bonferroni-corrected \( p < .01 \) level. Possession of a master’s degree, years of experience, and employment at a large university significantly predicted awareness of campus mental health and disability services. Employment at a large university significantly predicted fear, possession of a master’s degree significantly predicted confidence, and years of experience significantly predicted referrals to campus mental health and disability services. While the reliability alphas of the knowledge of psychological disabilities, confidence, awareness, and referrals dependent variables were adequate, reliability of the fear scale was unacceptable.

Additional data were presented on the perceived frequency of student displays of behaviors indicative of mental illness within a typical week, relative familiarity with individual disorders, and responses to select survey items measuring general knowledge, attitudes, and desire for professional development. Sources through which respondents gained information about mental illness were compared, as were preferred formats for learning about mental illness. These additional data were used to help supplement and inform implications of findings in the present study.

Conclusions, limitations of the study, and recommendations for future research are discussed in chapter five.
CHAPTER V
DISCUSSION

Overview

Using an adaptation of an electronic survey of attitudes and knowledge of mental illness (Becker et al., 2002) administered to 206 entry-level student affairs professionals, this study examined the effect of demographic variables on fear, confidence, awareness of and referrals to campus services, and knowledge of psychological disabilities. The author believes this research to be the first comprehensive study of the topic in this population. The present chapter presents conclusions from the five research questions and additional variables of interest with implications for student affairs practice, suggested directions for future research, and concludes with major limitations of the study.

Current Study Conclusions

The current study was not a direct test of Corrigan’s social cognitive model of mental illness stigma (2004) as the bulk of literature supports the presence of stigma across many populations. Rather, the theory served as a frame for the current study, which aimed to evaluate the impact of certain demographics of entry-level student affairs professionals on variables related to stigma and to the services for college students with mental illness.

Relationships among dependent variables were in predicted directions according to Corrigan’s social cognitive model (2004). As expected, confidence and fear were inversely
correlated. According to the theory, education about mental illness should replace faulty stereotypes about persons with mental illness, thereby reducing prejudice and the resulting discrimination. Education on mental illness, here represented by knowledge of psychological disabilities, was significantly associated with confidence in ability to help students and negatively associated with fear and social distance.

That the group of seven demographic independent variables failed to significantly predict the five dependent variables at the \( p < .01 \) level could be attributable to a primary limitation of the current study—a restriction of range of several of these variables. An additional and equally likely explanation, however, is that the majority of variance in these dependent variables may be explained by factors other than demographics. Thus, more emphasis will be given here to the significant individual predictors and to additional relevant findings.

Prior research found women displayed more positive attitudes towards mental illness and/or desire less social distance (Baumann, 2007; Becker et al., 2002; Pietrzak et al., 2009; Rao, 2004; Rodgers, 2009). In this study, gender was a non-significant predictor of knowledge of psychological disabilities but approached significance (\( p = .052 \)). Gender also did not predict comfort or fear, as would be predicted from prior research and Corrigan’s (2004) theory. It is possible that these expected effects of gender on knowledge of psychological disabilities, comfort in working with, and fear of college students with mental illness were not detected due to the presence of such a highly educated, younger sample.

Younger age and increasing education have been linked to fewer stigmatizing attitudes (Angermeyer & Dietrich, 2006; Gould et al., 2010; Mojtabai, 2010). Despite restrictions of range in age and education, level of education was found to predict awareness
of campus services and confidence in ability to help students, while age was not a significant predictor of any variables. The significance of having a master’s degree—when compared to those with only bachelor’s degrees—speaks to the importance of master’s programs in preparing student affairs professionals and the necessity of a master’s degree for most entry-level positions. The absence of significance of holding a doctoral degree—compared to the bachelor’s degree—is perhaps explained by the very small number with terminal or professional degrees in the study ($n = 4$) due to the focus on entry-level professionals. The full impact of level of education was also limited by the lack of participants holding less than a bachelor’s degree, such as an associate’s or high school diploma.

Years of experience predicted awareness of campus services and referrals to campus services. The finding is not surprising since professionals can be expected to become more familiar with the range of and best methods of making referrals to campus services for students with mental illness. But considering the restricted range of experience, with the average respondent having slightly less than three years’ experience, the significance of the results becomes meaningful. Results reiterate the importance of becoming familiar with resources and how to make effective referrals for those new to the campus environment.

Size of university where the professional is employed significantly predicted awareness of campus services and fear, while type of university (public or private) was not a significant predictor. Employment at large universities with enrollment of 10,000 students or more—compared to employment at small colleges with less than 2,500 students—was significant, while employment at a medium-sized university with 2,500 – 9,999 students was also non-significant. This relationship between employment at large universities and awareness of services and fear towards students with mental illness, though a small effect,
does constitute a trend and warrants discussion. Currently, a heightened sensitivity to the possibility of crises and the early role administrators play in getting help for troubled students may exist as a natural reaction to the Virginia Tech tragedy that occurred in the spring of 2007. While crises can certainly happen on campuses of any size, those working on large campuses may have a greater tendency to feel like they do not know their students individually. Findings of the current study suggest that size may play a role on experiences of student affairs administrators in relation to students with mental illness, separate from the impact of the type of institution.

Unlike earlier demonstrated differences in ethnicity on stigma measures (Rao et al., 2007), ethnicity was not a significant predictor. The combination of all non-White categories together was necessary due to few respondents in several groups—two Asians, five Hispanics, six of multicultural ethnicity, and zero Native Americans—but likely masked any real differences between some ethnicities within the non-White category. The non-significance of ethnicity may also be related to the fact that the respondents in the current study were more educated and younger than samples in prior studies.

Differences were noted between rater estimates of the frequency of observed mental illness symptoms and estimates of prevalence of mental illness in the college population within the literature base. Most respondents (84.3%) said that they observe 10% or less of students with symptoms in a typical week. Conservative scholarly estimates of mental illness in college students begin at 12-18% (Mowbray et al., 2006), the broadest estimates top out at 45% (Blanco et al., 2008), and with moderate estimates at 20-39% of students (Granello & Granello, 2000). Several explanations exist for this disparity. The symptoms only included observable behaviors and not the many internal thoughts and feelings accompanying mental
illness. Respondents might also have been helped by definitions for vague or unfamiliar terms such as “suspiciousness” and “grandiose ideas.” This difference between the prevalence of mental illness behaviors that can be observed (10% or less in this study) and those actually experienced by college students (20-39% to a possible high of 45%) is an expected finding and supports the notion of the invisible nature of mental illness.

The knowledge of psychological disorders variable used the sum of self-ratings on ten items, but levels of familiarity differed across specific psychological disorders. Education appears to be especially needed on schizophrenia, personality disorders, and paranoia. While only about 1% of the population will experience psychotic disorders (Soet & Sevig, 2006), as much as 17.7% of students may experience a personality disorder (Blanco et al., 2008), yet only a quarter (28.6%) of respondents are familiar or very familiar with the latter. Respondents were moderately familiar with PTSD, a disorder experienced by 3.4% of students (Soet & Sevig, 2006) but one likely on the rise due to its frequency in the veteran population returning to higher education in greater numbers.

Responses by student affairs professionals on the current study are compared next with faculty responses to certain items of importance on the Becker et al. (2002) study. Two important cautions are offered. The current survey follows Becker et al. by nine years, so attitudes and knowledge of faculty may have changed in this period of time. In addition, responses of student affairs professionals on the current study are compared to those of faculty on the prior study to gain an impression of the general patterns of responses as a means of gleaning possible trends for future study. Taken as a whole, responses from student affairs professionals on key knowledge and attitude items are positive and more so than faculty responses almost a decade prior.
In entry-level student affairs professionals, 3.1% agreed or strongly agreed that students with mental illness should not be allowed to attend class; in the earlier study of faculty, 5% agreed/strongly agreed. While these rates are similar and small, it is still concerning that some percentage would agree that a group of students should not be allowed to attend class solely on their status of having of a mental illness. Given that the social desirability effect is an issue, the actual percentage may be higher. Were the item to be reworded to inquire if other historically disenfranchised groups such as women and students of color should not be allowed to attend class, one might predict that that the result should be 0% who agree or strongly agree. Of course, there is a fraction of students with mental illness who—due to severe and/or unmanaged symptoms—are unable to and should not be allowed to attend class, but by no means is it the entire population of students with mental illness. As one pilot study respondent mentioned, this item was particularly difficult due to the presence of a few select students with mental illness who should not be allowed to attend class.

On this survey of entry-level student affairs professionals, only 1% believed students with mental illness never or rarely could succeed in college while in the Becker et al. (2002) study, 19% of faculty did. The issue of “success” in college is a complex one because grades, retention, and graduation are, in fact, impacted by the presence of having a mental illness. The problem is that negative beliefs about the potential for success could reinforce lower expectancies of and outcomes for certain students. Many of the difficulties students with mental illness face may be exacerbated by the reluctance to seek treatment. Instead of pessimistic attitudes, faculty and staff should demonstrate the belief that mental illness is treatable, counseling and medication can be effective, and diagnoses can be effectively
managed and often overcome. On these two items, student affairs professionals possess more positive attitudes about college students with mental illness and potential for success.

On the knowledge item “students with mental illness are disabled and eligible for ADA benefits/ accommodations,” 19.6% of respondents on the current study answered never or rarely, compared with 42% of faculty on the earlier study. Many diagnoses contain impairment language that mirrors language about disability considerations, and thus most will be eligible for ADA accommodations. It is difficult to tell if faculty and staff are aware that most students with mental illness qualify for accommodations, or perhaps are reflecting the reality that most students with mental illness will not seek out offices of disability services, but again, student affairs professionals appear to possess more accurate knowledge than faculty.

On two additional items measuring knowledge, 21.2% of entry-level student affairs professionals believe mental illness is never or rarely genetically transmitted while 33.3% of faculty did. To the item, “mental illness is something a person chooses,” 1% of respondents on the current survey agreed or strongly agreed. A lack of understanding of the role of genetics contrasts with the general understanding that most mental illness is an interaction between genetic predisposition and environmental influences. These are small percentages, and smaller than faculty beliefs, but reflect the Protestant ethic (Falk, 2001) that mental illnesses are challenges that can be willfully overcome if only the student would try harder.

Despite positive trends across knowledge and attitudes, responses to the group of items on professional developmental suggest education is still needed on the topic of mental illness in college students. The majority felt learning to interact with college students with mental illness was not a part of their graduate preparation programs, over one-third have
limited knowledge of mental illness and symptoms, and three-fourths report that educational efforts for staff on campus regarding mental illness in college students is not adequate. Almost all reported a desire for professional development on the topic.

Respondents indicated a desire for information to be presented through workshops and talking to specialists; they preferred active, personal training instead of independent formats such as videos, newsletters, and brochures. A limitation of the survey item, however, was the lack of an option to indicate a preference for information on mental illness presented through an online or website format. With limited time and resources, though, online information may offer a realistic alternative for staff development.

Although respondents observed symptoms of mental illness in less than 10% of college students, half of respondents reported their own personal “experience” with mental illness. Interestingly, this rate mirrors the upper range of prevalence estimates in college students as well. It is uncertain whether these reported experiences would meet criteria for diagnosable disorders, but it provides further support to the widespread nature of the issue.

The present study did not examine the impact of job functional area on the dependent variables of interest. The main functional areas of employment for respondents were residence life, advising, career services, and student activities. These campus functions employ large numbers of entry-level professionals, and entry-level professionals working in these areas might also be expected to have an interest in this topic due to the close relationships developed with students while working in these roles. The results of this study are thus highly relevant to practice in these areas.

Implications for Practice

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According to stigma theory, as education on mental illness is increased for faculty and staff, negative stereotypes are replaced with accurate information and more positive attitudes will be expressed (Rao, 2004). Fear should decrease while confidence in working with this population should increase. Fortunately, entry-level student affairs professionals appear to possess generally positive attitudes and knowledge of mental illness and to desire additional professional development on the topic, presumably to better serve this group of students. Within the literature review, it was demonstrated that a majority of research on college students with mental illness to date focused on practices of professionals within counseling, disability, and senior student affairs/dean of students offices. The current study sought to expand the literature by examining the attitudes and knowledge of entry-level student affairs professionals, with the greatest response rates seen from practitioners working in residence life, academic advising, student activities, and career services. Therefore, most of the implications are offered with a broad range of practice areas in mind.

Due to the absence of a significant relationship between the demographic predictors and the five dependent variables, many of the implications arising from this study relate to suggestions for future research. Eight major suggestions are offered in the following Recommendations for Future Research section, including: a) identification of factors related to referral effectiveness, specifically, as well as b) identification of other potential predictor variables such as type of graduate preparation program and number of counseling classes, c) expansion of the definition of related campus services, d) inquiry into the relationship of social media use with disclosure, stigma, and campus services use, e) inclusion of broader student affairs populations on the variables age, ethnicity, experience and education, f)
consideration of qualitative inquiry methods, g) expanding research on the recognition of symptoms, and h) research on student perceptions of discrimination.

Relationships among knowledge, fear, and confidence variables follow Corrigan’s (2004) social cognitive model of stigma and suggest education on mental illness contributes to more positive educational outcomes for college students with mental illness by reducing stigma and discrimination. Despite their positive attitudes, respondents acknowledged the need for more information on the topic in graduate school and from their campuses. The relative absence of adequate educational efforts, according to some authors, is a reflection of larger society’s deep-seated negative attitudes towards mental illness (Berman et al., 2000). Education of staff about mental illness, and how and where to refer, ensures easier service access and “no wrong door for entry” to help (Mowbray et al., p. 233).

An initial implication for practice is most relevant to faculty coordinators of graduate preparation programs for student affairs professionals, since two-thirds of respondents felt that their graduate program did not equip them to work with the population of students with mental illness. Even considering the tendency of entry-level professional to rate their abilities on core competencies as less than the level demanded for by their current positions (Cuyjet et al., 2009), given the large size of this student population, this seems to be an important area to address within the graduate curriculum. Previous studies have supported the idea, reiterated here, that the nature of counseling classes could better address skills and situations faced by helping professionals and college administrators (Reynolds, 2009). Instead, most required, introductory counseling courses are tailored for future licensed mental health professionals. Graduate programs can also address needs of college students with mental illness through courses on law in higher education, student development theory,
and courses examining student populations. Although professionals do suggest improvements are needed in graduate program content, graduate faculty within student affairs programs should take heart, though, that having a master’s degree—beyond the bachelor’s degree—significantly predicts confidence in working with students with mental illness as well as awareness of campus services, indicators that master’s-prepared professionals differ in at least two important ways from those without the graduate degree working in student affairs.

Beyond the graduate program, respondents employed as entry-level student affairs professionals are clearly interested in education, with 90% reporting a desire for professional development on the topic, and 75% reporting inadequate educational efforts on their home campuses. The remainder of the section’s comments will therefore consider the nature and focus of educational efforts that rise from current study findings, since stigma is ultimately reduced by replacing faulty stereotypes.

According to results, educational efforts will be more effective if offered through a workshop format and led by specialists. Passive formats such as brochures, newsletters, and videos do not appear to have the potential to be well-received, although the impact of information presented in an online format was not specifically assessed and could serve as an effective supplement to workshops. Leaders of educational efforts might include staff in offices of counseling and disability services, but the possibility certainly exists for collaboration with faculty with specific knowledge, and with other student affairs staff with sufficient interest and experience. To have the potential for an enduring impact on attitudes, prior research suggests workshops should follow these general considerations: length of at least two hours, normalization of the experience of mental illness and need for help,
emphasis on the effectiveness of treatment and medication, and contact (inclusion) with a current consumer of mental health services.

With regard to specific content of professional development efforts, results suggest four emphases are warranted. First, professionals would benefit from information on the prevalence rates of mental illness, overall and of specific diagnoses, in college students. Typical underestimates of prevalence can be explained by the invisible nature of mental illness, of professionals' ability to only observe a certain range of symptoms, and of the underutilization of campus counseling and disability services, due in part to stigma.

Professionals may be interested to learn that 50% of entry-level practitioners on the current study acknowledged personal experience with mental illness as well. Second, professionals lack information on criteria for various diagnoses and how to recognize symptoms, especially in diagnoses with low frequency. Entry-level professionals show the greatest need for information on schizophrenia, paranoia, and personality disorders, followed by PTSD. Interactions with students experiencing PTSD can only be expected to increase given the enrollment surge by veterans returning from combat. Information on specific behavioral indicators or patterns suggesting the potential for harm to self or others would be particularly helpful. Third, educational efforts could review current thinking on etiology, treatment options and efficacy, and legal considerations in higher education. Specifically, staff might learn of genetic and environmental contributions to mental illness, as well as a brief review of ADA language. Administrators also need to be educated regarding the role of the Federal Educational Rights and Privacy Act (FERPA) and students with mental illness (Blanchard, 2007) as well as the role of the Health Insurance Portability and Accountability Act (HIPAA). Last, practitioners would benefit from a review of campus resources for students,
focusing on counseling and disability services, any behavioral intervention or other crisis team in place, offices of the dean of students and/or senior student affairs officer, campus police, and specific roles and referral procedures for each, including crisis procedures.

The above professional development considerations are offered with entry-level student affairs professionals in mind, but in reality, all staff and administrators would likely benefit from such efforts. Findings of this study suggest goals of education are to increase overall knowledge of psychological disabilities, to increase confidence (and reduce fear) in working with students, and to increase the awareness of campus resources and the perceived effectiveness of referrals to such services. Results indicate that efforts are especially needed on large campuses where sensitivity surrounding student mental illness appears heightened as a result of recent and well-publicized but rare outbreaks of serious violence. As Corrigan’s (2004) theory informs, when the presence of fear towards certain groups is raised, the potential for prejudice and discrimination follows. It may also be especially important to target workshops for professionals employed in residence life, academic advising, career planning, and student activities due to the large numbers of entry-level practitioners in these areas and their close interactions and relationships with students. Finally, it appears that education on the topic is particularly desirable for professionals brand new to the field, since years of professional experience significantly predicts awareness of campus services and perceived effectiveness of referrals to these services, even within the restricted range of entry-level student affairs practitioners.

Beyond the improvement of graduate preparation programs and campus educational efforts, the literature base and the current study findings also inform the everyday practice of student affairs professionals. Generally, staff should be aware of the widespread nature of
mental illness in college students and view treatment as effective and available. This assumption then guides the development of policies and practices that support, not discriminate against, students with mental illness in at least three areas.

An initial implication for student affairs practice is that orientation and other large-scale campus programs need not perpetuate stigma surrounding mental illness by ignoring or “whispering” about the topic, using language that is parental, derogatory, or dismissive. Programs should provide straightforward information on campus and community mental health resources in a supportive and open manner. At the same time, professionals need to be aware of the emotional process involved when students self-identify as having a mental illness. Recent research points to the applicability of the concept of “coming out”—historically used in relation to the gay community—as a process that can mediate self-stigma (Corrigan et al., 2010). Rather than simply imploring students to seek help, practitioners can acknowledge the costs and benefits of coming out that are likely to significantly differ across situations. The use of peers who have successfully navigated such challenges can be useful (Corrigan et al., 2010).

Second, student affairs practitioners should examine their administrative practice areas for opportunities and challenges related to the recognition of mental illness symptoms as well as referrals to campus mental health services. Online social networking sites such as Facebook present an important but relatively unexamined area related to stigma and surrounding campus mental health resources. A recent study of 200 Facebook profiles of college students revealed 25% displayed depressive symptoms in their profiles while 2.5% met DSM-IV criteria for a Major Depressive Episode (Moreno et al., 2011). College students’ online communication may provide a novel opportunity to recognize the presence

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of mental illness, to increase help-seeking behavior, and “to [raise] self-awareness and [combat] stigma surrounding mental health conditions” (p. 453). Interestingly, the acceptability of the personal disclosure of depressive symptoms on social networking sites, along with the accompanying support provided by online friends, may be altering the way college students experience mental illness and their willingness to utilize office-based support services. Administrative functions who maintain a presence on social networking sites will undoubtedly encounter students who disclose, intentionally or not, the presence of mental illness. Best practices and professional considerations surrounding students who self-disclose in online environments presents one of the most important yet unaddressed areas related to the topic of overcoming stigma to increase mental health treatment of college students.

Third, in an economic environment with declining public funds for higher education, staff reductions, and an emphasis of “doing more with less,” student affairs professionals can expect to be challenged to address effectively the greater numbers of students with disabilities due to expanded criteria on the ADAAA. On a practical level, student affairs administrators are faced with difficult budgetary (and time allocation) decisions among competing priorities that likely pit the needs of students with mental illness against other student populations, professional developmental topics and campus needs such as technology and facilities. If there is any conclusion to gleaned from the current study and prior literature, it is that entry-level student affairs professionals have relatively positive attitudes towards and knowledge of mental illness along with an interest in continuing professional development on the topic, and thus can be expected to weigh fairly the needs of such students alongside competing priorities and pressures.
While the bulk of implications thus far have addressed practices that support college students with mental illness, the finding that 50% of entry-level professionals on the current study reported personal experience with mental illness suggests that an additional implication for student affairs practice is to strengthen efforts to support the emotional health of professionals in the field. As practitioners need to be knowledgeable about symptoms of mental illness and to make appropriate referrals for students, so too should supervisors of entry-level professionals recognize that their employees face mental health challenges on a scale that is not widely recognized. Supervisors and human resource benefits personnel should promote mental health resources including relevant health insurance coverage for campus employees. Additionally, new professionals who develop close and collaborative working relationships with peers can provide similar support and referral for colleagues.

The present study addressed attitudes and knowledge of entry-level student affairs practitioners, but a final implication is for these professionals, as experts on student learning and development, to collaborate with faculty towards the common goal of improving knowledge about mental health issues in students. Opportunities to bridge the faculty-staff divide are to offer the topic in faculty advisor development and handbooks, and to broaden educational efforts on campus to target faculty and staff as well as paraprofessionals.

Recommendations for Future Research

Given the substantial unmet need of mental health treatment and the 81.5% of students with mental illness not receiving help according to one study (Blanco et al., 2008), it is particularly important to understand factors associated with effective referrals. Student affairs administrators—outside of appropriately trained, licensed staff employed in
counseling and related positions—are not expected to provide mental health services, and the concept of referring students to offices better able to serve their needs is a pervasive and important practice within the profession. Practitioners who encounter students in need encourage them to make use of other resources in campus and in the community. It would be informative to learn what practices result in higher rates of student “compliance” with referrals. Because of privacy and confidentiality laws, it may be easiest for staff within counseling and disability services offices to conduct research on students who make use of their services to understand if they have been referred, and if so, associated factors that did or did not play a role in their decision to seek help. These findings on student perceptions could be compared to future research on administrator perceptions of factors associated with effective referrals to examine differences, with the goal of altering practice to better match student perceptions of what works.

The awareness of campus services construct was defined rather narrowly in this study as the sum of administrators’ self-ratings of awareness of campus mental health and disability services. The referrals to campus services construct was slightly broader and in addition to perceived effectiveness of referrals to campus mental health and disability services, it assessed perceived effectiveness of referrals to off-campus counseling as well as consultation with counseling, disability services, and the dean of students/senior student affairs officer. In future studies examining awareness of related services or effectiveness of referrals to related services, these constructs should be expanded to include additional resources that serve to support students, including behavioral intervention or other established crisis teams, campus police, health services, and campus ministry. The inclusion
of additional services might also assist with the borderline reliability of the awareness construct observed in the present study.

A large proportion of students today use social networking sites such as Facebook, with some posting personal information related to emotional status. A host of issues surround such disclosures and warrant further study. A primary question exists as to whether, and to what extent, student affairs professionals should be actively engaged—in a personal and/or professional capacity—on social networking sites with college students. If professionals are active on such sites, it is unclear what responsibility they have to intervene after viewing disclosures of mental illness struggles, and whether students want or expect such assistance. Initial research on the topic suggests students feel supported by friends’ comments related to online disclosure, and thus research should attempt to understand the relationship of online disclosure of mental illness and willingness to use campus services. Ultimately, “public” disclosures online could be one indicator of the decline of stigma associated with mental illness.

The goal of the present study was to examine the attitudes and knowledge of entry-level student affairs professionals as a population, which presented a challenge in examining the impact of several demographic variables—including age, level of education, and years of experience—precisely due to the necessity of using respondents with only a few years of experience. Studies examining the present research questions in mid- or senior-level student affairs populations would provide additional information for comparison, but might also be expected to suffer a similar restriction of range on such variables. If possible, future studies investigating the impact of demographic variables should aim to achieve better representation from ethnic minority groups and professionals with less than a college degree. Including
professionals who are employed part-time and/or currently enrolled in graduate school could provide a broader representation of those working in the field today. Researchers could also sample from other professional organizations or outside associations altogether, since it is acknowledged that members of a professional association may be more inclined to desire professional development and to possess more positive attitudes.

The goal of increasing knowledge about mental illness is central to increasing confidence and reducing fear in working with college students. This author examined seven demographic predictor variables which ultimately significantly predicted knowledge of psychological disabilities and awareness of campus services, two of the five criterion variables. Only a small amount of variance in the constructs was explained, however. Future inquiry should seek to identify predictors of the five constructs that explain a greater amount of variance. For instance, student affairs professionals enter the workforce with differing levels of knowledge, due in part to varying experiences with graduate preparation. Many graduate programs have either a counseling or administrative focus, with counseling-based programs placing greater emphasis on the interpersonal aspect of work with students such as development theory and counseling skills, while administrative programs place greater emphasis on management, leadership, legal, and fiscal aspects. Related to type of master’s program is the number of undergraduate and graduate counseling classes one has taken. Assuming completion of counseling-based master’s programs and counseling-specific classes increases knowledge of mental illness, these variables should significantly predict the criterion variables in the current study. In reality, type of graduate program may not be as clearly defined since many programs are hybrid in nature. Thus, administrative-focused
programs require counseling and development courses, and those counseling-focused include coursework in leadership, fiscal management, and law of higher education.

A strength of this quantitative study was the ability to easily compare findings to prior studies completed with a different (faculty) population. Yet, a primary limitation was the inability to further explore respondents’ answers to questions. This frustration was shared by pilot participants who gave feedback to the author that for many items inquiring about the generic “students with mental illness,” they would have liked the opportunity to provide additional information qualifying their answers and to explain their selections, since finite Likert choices such as “disagree” or “agree” did not seem to capture the quality of their thinking. Therefore, future researchers examining the topic of student affairs professionals’ attitudes towards mental illness in college students should consider the use of qualitative methods. Qualitative research would be well-suited for social phenomena such as stigma in that it reveals thick, rich data and detects subtle nuances through extended interactions with participants.

An important skill for entry-level professionals is the recognition of symptoms that may be indicative of mental illness. The goal is not for all practitioners to be able to diagnose different disorders, but to be aware of typical symptoms that suggest a student could benefit from a referral to professional help. In the current study, professionals were asked about eleven different symptoms of mental illness and the frequency of observations in a typical week. Future research can delve further into the types of symptoms observed by professionals and reported by students, especially symptoms that may be more subtle. For instance, specific behavioral examples of personality change, withdrawal, suicidal writing
and thought, and emotional outbursts would be informative for educating the campus community on the recognition of symptoms of mental illness.

One final but equally important recommendation for future research would be to study outcomes of the stigma process by examining instances of actual and perceived discrimination. The lack of significant findings for the five research questions should not be interpreted as an absence of stigma, but rather an absence of significance of those demographic variables in the rather narrow entry-level student affairs population. Certainly, many challenges exist for college students with mental illness and were delineated within the earlier literature review, but the student affairs field would benefit from an improved understanding of ways in which practitioner behavior directly creates unnecessary barriers for such students. This area is particularly well-suited for qualitative methods; college students with mental illness could speak to interactions with student affairs professionals and to experiences across programs and services.

Limitations

Seven main limitations impact the discussion and application of study findings, including: the social desirability effect, problems with accuracy of self-ratings, differences between responders and non-responders and between ACPA members and non-ACPA members, lack of homogeneity of entry-level student affairs professionals, restriction of range of four of the independent variables (age, education, experience, and ethnicity), and borderline to poor reliability of two dependent variables (awareness of campus services and fear and social distance).
A primary limitation in studies of attitudes toward the mentally ill is the social desirability effect, which is the tendency to present oneself in a more positive light than is actually the case (Edwards, 1957). Respondents to attitude surveys may minimize socially unacceptable beliefs although they maintain and act upon such beliefs (Wahl, 1999). Many authors note, however, that despite the phenomenon of social desirability, stigmatizing attitudes continues to present an interesting and valuable topic of study (Crandall, Eshleman, & O’Brien, 2002; Day et al., 2007). Consequently, if studies tend to underestimate the true degree of prejudice towards mental illness, then the presence of even minimal negative attitudes suggests a meaningful finding. Given that social desirability is an unavoidable aspect of attitude research, it would seem reasonable to conclude that computer-based, anonymous surveys would allow for more accurate depictions of respondent beliefs than other methods. However, a meta-analysis of 61 studies comparing differences in social desirability responding between computer and paper-and-pencil or face-to-face administrations revealed, in general, similar levels of social desirability bias across methods (Richman, Kiesler, Weisband, & Drasgow, 1999). Computer administrations do reduce social desirability distortion when assessing highly sensitive personal information such as drug use or risky sexual behavior. Here, the use of items requiring responses to the generic “students with mental illness” was necessary to elicit general attitudes and beliefs, but there is admittedly great variability in beliefs and attitudes towards students with different disorders, personalities, and backgrounds.

A second limitation of the present study is that the dependent variables are self-reported measures. The study would be strengthened with a more objective measure of actual behavior that is beyond the scope of this present study.
A third limitation of the study is that surveys have inherent problems with low response rates and differences between responder and non-responding groups (Dillman, 2000). This study made use of an initial invitation with two reminders, a method shown to maximize response rate in electronic surveys (Cook et al., 2000). Still, non-responders may have had less interest in the topic of mental illness and thus decreased knowledge of mental illness, awareness of and referral to campus resources, and confidence in working with college students, as well as greater fear.

A fourth limitation of the study is that respondents are members of a professional organization. Use of ACPA membership allows for a much broader and more representative sample of administrator attitudes than sampling from only one university. However, the association states among its core values “advancement and dissemination of knowledge relevant to college students and their learning...continuous professional development and personal growth of student affairs professionals...[and] outreach and advocacy on issues of concern to students, student affairs professionals and the higher education community, including affirmative action and other policy issues” (American College Personnel Association, 2011, para. 5). With a shared commitment to values of knowledge advancement, professional development, and advocacy, members of a professional organization might be more inclined to seek professional development than non-members, and likewise, show a pattern similar to the responder vs. non-responder pattern discussed above.

A fifth limitation of the study is that the population of entry-level student affairs practitioners is not a homogenous group. This diversity is a definite strength when meeting the many challenges and functions of current student affairs practice, but makes for difficulty
in defining the population of interest and for generalization of results. Some members of ACPA who define themselves as entry-level may be working within departments of academic affairs, and others may be working within areas such as institutional research that do not have sufficient levels of student contact to complete the survey. Some practitioners, especially mid-life career-changers, may technically be regarded as being entry-level to the field of student affairs but have a long history of work experience in a related field such as counseling, human services, or non-profit administration.

A sixth limitation is that the study of entry-level student affairs professionals resulted in a restriction of range for the independent variables of age, level of education, years’ experience in the field, and ethnicity. On the whole, entry-level professionals completing the study tended to be younger, had master’s degrees, were largely White, and by definition had only several years of work experience. Of the study limitations, the restriction of range of four of seven of the independent variables—age, level of education, years’ experience in the field, and ethnicity—probably impacted the research questions in the most direct way. For example, these variables could indeed account for significant and meaningful portions of the variance of some of the dependent variables, but the relationship was unable to be detected. If the research had been conducted across entry-, mid-, and senior-level professionals, for example, these four variables would have had a greater range and ultimately, a higher possibility of detecting significant predictive relationships.

A seventh and final limitation is the borderline reliability of the awareness of campus services variable, and the poor reliability of the fear variable. In future studies, the awareness variable might be improved by the inclusion of additional resources related to mental health
support such as behavioral intervention teams, the role of offices of the Deans of Students or Vice President of Student Affairs, campus ministry, and campus police, among others.

**Conclusion**

Student affairs professionals, partnering with faculty and others on college campuses, proclaim to develop students *emotionally* as well as intellectually, physically, socially, and spiritually (American Council on Education, 1937; Keeling, 2006). Prior inquiry suggested improved mental health literacy increases practitioner confidence and reduces fear, stigma, and discrimination. The present study, a novel look at entry-level practitioners' attitudes towards and knowledge of mental illness in college students, demonstrated that this group of professionals possesses generally positive attitudes as well as a desire for increased mental health literacy.

Fortunately, a hopeful picture is emerging. Almost a half century ago, legislation was enacted to ensure equal access for students with disabilities. And although chilly campus climates may still exist for groups once excluded from higher education (Beilke & Yssel, 1999), core values of the field, including diversity, inclusiveness, advancement of knowledge related to college students, and professional development (American College Personnel Association, 2011) suggest student affairs are poised to impact the development of college students with mental illness.
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Appendix A: Student Affairs Mental Illness Awareness Survey

SECTION A.
In a typical week, how often have you observed the following student behaviors that may be symptoms of mental illness?

<table>
<thead>
<tr>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

A1. Marked personality changes over time
A2. Withdrawal, diminished friendliness
A3. Confused thinking
A4. Suspiciousness
A5. Grandiose ideas
A6. Talking or writing about suicide
A7. Emotional outbursts
A8. Major changes in appearance
A9. Rapid, pressured speech; interrupts others
A10. Odd or exaggerated gestures
A11. Talking to oneself

A12. In a typical week, what percentage of students exhibited one or more of the above behaviors?
- 0%
- 1-5%
- 6-10%
- 11-20%
- 21-40%
- 41% and above

SECTION B.
How familiar are you with the following services available to students on your campus?

<table>
<thead>
<tr>
<th>Not familiar</th>
<th>Somewhat familiar</th>
<th>Familiar</th>
<th>Very familiar</th>
<th>No services or n/a</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>0</td>
</tr>
</tbody>
</table>

B1. mental health services
B2. disability services

How familiar are you with the following?

<table>
<thead>
<tr>
<th>Not familiar</th>
<th>Somewhat familiar</th>
<th>Familiar</th>
<th>Very familiar</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

B3. Attention-Deficit Disorder
B4. Anxiety Disorder
B5. Bipolar Disorder
B6. Depression
B7. Personality Disorder
B8. Paranoia
B9. Schizophrenia
B10. Eating Disorder
B11. Post Traumatic Stress Disorder
B12. Substance Abuse
B13. *From which of the following sources have you obtained knowledge about mental illness? (check all that apply)*

- Formal education/training
- Personal experience with mental illness
- Family, friends, and coworkers’ experience with mental illness
- Professional experience
- Media (TV, radio, newspaper, magazines, books, internet)
- Other. Specify: ____________________

SECTION C.

*Based on your knowledge and experience, please indicate how often you think that...*

<table>
<thead>
<tr>
<th>Never</th>
<th>Rarely</th>
<th>Sometimes</th>
<th>Often</th>
<th>Always</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5</td>
</tr>
</tbody>
</table>

C1. Students with a mental illness are disabled and eligible for Americans with Disabilities Act (ADA) benefits/accommodations.
C2. Students with a mental illness can succeed in college.
C3. Students showing signs of stress have a mental illness.
C4. Students who are vague or have rambling speech have a mental illness.
C5. Students who don’t show emotions or feelings have a mental illness.
C6. Preoccupation with odd ideas is a sign of mental illness.
C7. Mental illnesses are serious disorders requiring the attention of a specialist.
C8. Sudden dropping of a class or frequent tardiness and/or absences are signs of a mental illness.
C9. I am able to work with students with mental illness without seeking help from a counselor.
C10. I am able to convince students with mental illness to seek help with the university counseling center.
C11. I am able to differentiate whether students have a mental illness or are just temporarily upset.
C12. I am able to discuss my concerns with students who show signs of a mental illness.
C13. I am able to convince students with mental illness to seek help from a source outside the university.
C14. I am able to determine if students have a mental illness.
C15. Mental illnesses are genetically transmitted.

*Please indicate your agreement with each of the following statements.*

<table>
<thead>
<tr>
<th>Strongly disagree</th>
<th>Disagree</th>
<th>Agree</th>
<th>Strongly agree</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
</tr>
</tbody>
</table>

C16. I am comfortable when I deal with students who have symptoms of mental illness. (reverse-scored)
C17. My attitudes toward students can be negatively influenced by their mental status.
C18. I take special interest in helping students with mental illness.
C19. I avoid dealing with students with mental illness for fear of being misunderstood.
C20. I am aware of my own stereotypes and biases about students with mental illness.
C21. Students with mental illness can recover and succeed in college.
C22. Students with mental illness should not be allowed to attend classes.
C23. I do not feel comfortable interacting with students who have mental illness.
C24. I am not sure if any students at my college have mental illness.
C25. I understand the causes of mental illness.
C26. One symptom of mental illness is disorganized speech that is difficult to follow.
C27. Students with mental illness may have persistent feelings of unreality.
C28. Students with mental illness may experience sensory distortions.
C29. Students with mental illness have limited social skills and problem-solving abilities.
C30. Mental illness is something a person chooses.
C31. I would not feel safe and secure in an office or classroom in the presence of a student with mental illness.
C32. Students with mental illness make me feel tense and uncomfortable.
C33. I have limited knowledge about mental illnesses and their symptoms.
C34. I am not qualified or trained enough to interact with students who have mental illness.
C35. Part of my degree training was to learn how to interact with students who have mental illness. (reverse-scored)
C36. Students with mental illness are dangerous to have on campus.
C37. The level of educational efforts offered for staff and administrators at my university regarding college students with mental illness are adequate. (reverse-scored)

C38. I desire professional development on the topic of college students with mental illness.

C39. If you desire information about mental illness, what formats do you prefer? (check all that apply)
   □ Workshop (conference, staff development training)
   □ Video
   □ Brochures
   □ Newsletters
   □ Talking to a specialist
   □ Other: ____________________________

SECTION D.
Rate the effectiveness of the following strategies you have used with students you believed to have mental illness.

<table>
<thead>
<tr>
<th>Not effective</th>
<th>Somewhat effective</th>
<th>Effective</th>
<th>Very effective</th>
<th>Have not used</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>0</td>
</tr>
</tbody>
</table>

D1. Referred students to the university counseling center.
D2. Referred students to counseling outside university counseling services.
D3. Referred students to the disability services office.
D4. Discussed the problem with students.
D5. Consulted with university counseling center about students.
D6. Consulted with university disability services about students.
D7. Consulted with the Dean of Students/Senior Student Affairs Officer about student.

SECTION E.
Demographic information.

E1. Gender:
   □ Male
   □ Female
   □ Transgender

E2. Age: ________ (years)

E3. With which ethnic group do you identify?
   □ African American
   □ Asian/Pacific Islander
   □ Caucasian
   □ Hispanic
   □ Multiracial
   □ Native American
   □ Other (list): __________________

E4. Indicate your highest level of education completed:
   □ High school diploma or GED
   □ Associate’s degree
   □ Bachelor’s
   □ Master’s or Education Specialist
   □ Doctorate (PhD, EdD) or Professional degree (MD, JD)

E5. (If E4 response indicated master’s or doctorate completed)
Type of graduate program:
   □ Counseling-based (counseling, student affairs, college student development)
   □ Administrative-based (higher education, organizational, management)
   □ Other (list): __________________
E6. Number of undergraduate counseling courses: __________

E7. Number of graduate counseling courses: __________

E8. Type of employing institution:
- Public, two-year
- Public, four-year
- Private, two-year
- Private, four-year
- Other (list): ____________________________

E9. Enrollment at employing institution:
- Less than 2,500 students
- 2,500-4,999 students
- 5,000-9,999 students
- 10,000-19,999 students
- 20,000 or more students

E10. How long have you been employed in student affairs/higher education on a full-time basis? ________ (years)

E11. What is your primary job function? (Select the one that represents the greatest portion of your responsibilities)
- Academic Advising
- Admissions
- Administration/Enrollment Mgmt
- Adult Learner Services
- Assessment/Research
- Career Planning/Placement
- Commuter Services
- Counseling
- Disability Services
- Financial Aid
- Food Services
- GLBT Awareness
- Graduate Prep. Prog. Coordination
- Greek Affairs
- Health/Drug and Alcohol
- International Students
- Intramural/Rec Sports
- Judicial Affairs
- Leadership Development
- Multicultural Affairs
- Orientation
- Religious Programs
- Residence Life
- Service Learning
- Student Activities
- Student Affairs Administration
- Student Union
- Teaching Faculty
- Women's Resources
- Other (list): ____________________________

E12. Current position level:
- Entry-level
- Mid-level
- Senior-level

E13. Current position status:
- Full-time (at least 35 hours/week)
- Part-time

E14. Country in which you are employed: ____________________________

E15. Country of origin: ____________________________
CURRICULUM VITAE

JENNIFER A. SCHUM
Work: 3800 Hillsborough Street, Raleigh, NC 27607
(919) 760-8318
schumjen@meredith.edu

EDUCATION

UNIVERSITY OF LOUISVILLE, Louisville, KY
Ph.D. in College Student Personnel, 7/25/11
M.Ed., College Student Personnel, 12/12/06

SPALDING UNIVERSITY, Louisville, KY
M.A., Clinical Psychology, 7/28/97

JAMES MADISON UNIVERSITY, Harrisonburg, VA
B.S., Psychology, English minor, Magna Cum Laude, 5/7/94

HIGHER EDUCATION EXPERIENCE

MEREDITH COLLEGE, Raleigh, NC
Associate Director, Academic and Career Planning 7/09 – present
• Manage the 23+ program, a conditional admissions advising program for women over 22, and coordinate all transfer advising.
• Direct faculty advisor development efforts, including workshops, newsletters, and listserv, and supervise two Assistant Directors.
• Organize and lead multi-day fall and spring orientation tracks for adult and transfer students, including training of student ambassadors.
• Implement support programs for adult students, including: pinning ceremonies, WINGS events, Alpha Sigma Lambda induction, nontraditional student week, and adult information site on Blackboard.
• Manage probation advising workshops for all undergraduates, as well as study skills series and drop-in sessions.
• Provide support for traditional undergraduate events such as summer Advising and Registration, and to Career Services events including resume workshops, career networking fair, and job fairs.

BELLARMINE UNIVERSITY, Louisville, KY
Developmental Advisor, Academic Resource Center 6/06 – 6/09
• Advise first-year, transfer, probation, and undeclared students.
• Coordinate campus-wide advising programs, including Declaration Day, Summer Orientation, Advising, and Registration (SOAR), Student and Parent Orientation academic sessions, and midterm grade reports.
• Organize and train faculty on material for freshman focus course, including management of Blackboard course content for 41 sections.
• Direct assessment of freshman advising using Blackboard, email, and Survey Monkey.
• Lead workshops on study skills, time management, test taking, and goal setting.
• Manage updates to faculty advising handbook and to ARC web pages.
• Produce comprehensive retention reports on freshmen and sophomores.
• Represent advising on conduct panels, satisfactory academic progress, dismissal, and scholarship renewal.

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• Teach two courses: IDC 100 Freshman Focus, a one-credit college success course, and ARC 099, a non-credit academic and career decision-making course.
• Serve as "walk-in" advisor for any student needs at the university, requiring strong knowledge of all majors and university policies and procedures.
• Supervise three work-study students and a graduate intern.

Student Life Coordinator, Office of the Dean, Student Affairs 8/05 – 6/06
• Provide administrative and programmatic support to both the Assistant VP/Dean of Student Affairs and the Assistant Dean of Students for International Students and Disability Services.
• Assist with international student paperwork and events, including the international student handbook and orientation.
• Advise students with a disability regarding paperwork and general accommodations procedures.
• Plan and execute division/campus-wide events such as Student Affairs week, InTENTse fun, Black History Month, and staff development retreats.
• Manage annual updates to student handbook.
• Create reports for division, President, and Board on NSSE and CIRP data.

UNIVERSITY OF LOUISVILLE, Louisville, KY
Doctoral Intern, Office of Director of Assessment and Planning Summer, 2008
• Create timeline, goals, and training guidelines for division of Student Affairs’ assessment plan.
• Coordinate Parent Orientation campus services workshop for 10 sessions during summer.

Research Assistant, Retention Management Research, College of Education Summer, 2005
• Using large data sources in Excel and Access, track student demographics, academic performance, and test scores.
• Perform statistical analyses using SPSS to create enrollment and retention report summaries.

Graduate Assistant, REACH Academic Support and Advising Spring, 2005
• Assist advisors within Undergraduate Studies Advising Center, including follow-up and service referral of at-risk students.
• Implement Majors Day and Open House events.
• Update REACH website and pamphlets.
• Administer College Student Inventory, and assistance with NACADA presentations.
• Perform telephone research surveys for Office of Retention Management and Research.

COUNSELING EXPERIENCE

FRAZIER REHAB INSTITUTE, Louisville, KY
Licensed Psychological Associate 7/02 - 1/05
• Conduct individual, family, and group counseling and education for patients and families receiving inpatient, acute rehabilitation.
• Manage neuropsychological laboratory, including scheduling and insurance coordination.
• Perform and score comprehensive neuropsychological assessment batteries.

BRAIN INJURY SERVICES, Fairfax, VA
Senior Case Manager 11/00 - 7/02
• Provide service coordination, education, and advocacy for a caseload of individuals with brain injury in a diverse, metropolitan area.
• Link clients to providers of financial aid, social services, mental health, transportation, housing, vocational preparation, substance abuse, and medical insurance.
• As agency lead Case Manager, serve on Quality Improvement/Quality Assurance committee reviewing policy and procedures.
HUMANIM, Columbia, MD
Psychology Associate/ Cognitive Rehabilitation Therapist 7/98 - 11/00
• Conduct cognitive rehabilitation, neuropsychological assessment, and case management in a community re-entry vocational rehabilitation program for adults with acquired brain injury.
• Provide individual and group counseling with adults in a dual-diagnosis psychiatric/ brain injury rehabilitation program, and supervise bachelors’-level clinician.

TEACHING

BELLARMINE UNIVERSITY

PSYC 103: Introduction to Psychology (3 credits) Fall, 2007
IDC. 100: Freshman Focus (1 credit) Fall 2006-2008
ARC. 099: Majors and Minors (non-credit) Spring 2007-2009

RESEARCH

INTERESTS
Transfer and adult student transitions, assessment, college student mental health.

DOCTORAL DISSERTATION, University of Louisville in progress
Entry-level Student Affairs Administrators’ Attitudes Toward Mental Illness in College Students.

RESEARCH ASSISTANT, Catherine Frantom, PhD, Frazier Rehab Institute 2004 - 2005
Neurocognitive Functioning in Children with Chronic Fatigue and Complex Regional Pain Syndrome. Examined neurological ability in children with complex pain syndromes.

MASTER’S THESIS, Spalding University 1996 - 1997
The Tridimensional Personality Questionnaire and Eating Attitudes in College Women. Examined the relationship between personality characteristics and disordered eating attitudes in college women.

RESEARCH ASSISTANT, Richard West, Ph.D., James Madison University 1993 - 1994
The Cognitive Consequences of Literacy. Investigated critical thinking skills and level of print exposure in college students.

PUBLICATIONS

SACSA-lert Online Newsletter
Creating a Research Group with Student Affairs Colleagues 8/09
Scanning the horizon of future areas of research in student affairs 7/08

NATIONAL and REGIONAL PRESENTATIONS

NORTH CAROLINA ACADEMIC ADVISING ASSOCIATION, Chapel Hill, NC 2/11
Academic Advising: Career Planning in Disguise?

INDIANA ACADEMIC ADVISING NETWORK, New Albany, IN 5/08
Use of a Collaborative Retention Team to Target At-risk Freshmen, New Albany, IN

SOUTHERN ASSOCIATION FOR COLLEGE STUDENT AFFAIRS, Jacksonville, FL 11/06
Personal and Professional Balance in New Student Affairs Administrators

COLLEGE PERSONNEL ASSOCIATION OF KENTUCKY, Louisville, KY 3/06
Doctoral Study in Student Affairs
Resolving Town and Gown Issues: Case Study 3/05

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NATIONAL ASSOC. OF STUDENT PERSONNEL ADMINISTRATORS
Strategies for Success as a Doctoral Student, Doctoral Student Panel, Boston, MA 3/08
Institutional Influences on Students' Social Integration Atlanta, GA 6/05

NATIONAL ACADEMIC ADVISING ASSOCIATION, REGION 3, Louisville, KY
A Campus-Wide Majors Day: Poster Presentation 4/05

CASE MANAGEMENT CONFERENCE, Williamsburg, VA
Collaboration and Coordination of Services 6/01

COMMUNITY EDUCATION, Washington, DC
Brain-Behavior Relationships and Cognitive Functioning. 7/98 – 7/02

NATIONAL CATHOLIC EDUCATORS ASSOCIATION, Boston, MA
Use of the Louisville Archdiocese 'Family Builders' Model of Systemic Family Therapy. 7/97

PROFESSIONAL ASSOCIATION MEMBERSHIP and CONFERENCES

American College Personnel Association (ACPA), member
National conference, 2005, 2010
NC College Personnel Association (NCCPA), state conference, 2009
College Personnel Assoc. of Kentucky (CPAK), state conference, 2006-2009
National Academic Advising Association (NACADA), member
National conference, 2010
NC Academic Advising Assoc. (NS-NACADA) conference, 2011
KY Academic Advising Assoc. (KACADA), state conf., elections comm., 2009
Indiana Academic Advising Network (IAAN), state conf., 2008
Region 3 conference and planning committee, 2005
North Carolina Adult Education Association (NCAEA), member
State conference, 2010
Atlantic Assessment Conference, 2010
National Association of Student Personnel Administrators (NASPA), member
National conference, 2005-2008
Program reviewer, 2006-2008
Doctoral student workshop presenter, 2006, 2008
Southern Association for College Student Affairs (SACSA), member
Regional conference, 2006
Research and dissertation grant committee, 2006-2008

SERVICE

23+ advisory committee, Disability services advisory committee, Meredith College 2009-present
Executive board member, James Madison University Triangle Alumni 2009-present
Staff Council, Chair, social and development committee, Bellarmine University 2007-2008
Graduate Association for Professionals in Student Affairs (GAPSA) 2004-2009
Graduate Student Council rep., University of Louisville 2006-2007
Faculty Advisor W.I.N.G.S., Alpha Sigma Lambda (Meredith College) 2009-present
Rotaract (Bellarmine University) 2005-2007
Safe Zone training, advocate 2005-present