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SUPPORTING STUDENTS WITH PSYCHIATRIC DISABILITIES
IN POSTSECONDARY EDUCATION: IMPORTANT
KNOWLEDGE, SKILLS, AND ATTITUDES

by

Scott I. Kupferman

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

of

DOCTOR OF PHILOSOPHY

in

Disability Disciplines

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Logan, Utah

2014

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ABSTRACT

Supporting Students with Psychiatric Disabilities in Postsecondary Education:
Important Knowledge, Skills, and Attitudes

by

Scott I. Kupferman, Doctor of Philosophy

Utah State University, 2014

Major Professor: Jared Schultz, Ph.D.
Department: Special Education and Rehabilitation

Students with psychiatric disabilities are the largest subgroup of students with disabilities enrolled in postsecondary education. However, their high enrollment rate does not equate to a high retention rate. Approximately 86 percent of students with psychiatric disabilities withdraw prior to degree completion. As a result, calls for improved disability services in postsecondary education have been plentiful. In an effort to take a step toward answering these calls, the current study began the exploratory process of identifying knowledge, skills, and attitudes that are important for disability service professionals to possess in order to provide beneficial services to students with psychiatric disabilities in postsecondary education.

The current study began with the developing of a survey instrument using (a) a three-round Delphi survey with expert panels consisting of disability service professionals and students with psychiatric disabilities and (b) a pilot group of disability service professionals. The final instrument with 54 knowledge, skills, and attitudes was

rated by a sample of 402 disability service professionals who were members of the Association on Higher Education and Disability (AHEAD). A principal components analysis was used to analyze the data. Five factors emerged: (a) Ethical and Legal Considerations, (b) Accommodations and Supports, (c) Disability Aspects, (d) Community Resources, and (e) Campus Considerations. A post-hoc analysis with a MANOVA and descriptive statistics was also conducted. Each factor was explored within the context of the literature. Further, differences between professional and student perceptions were highlighted. Lastly, implications, assumptions, limitations, and recommendations for future research were discussed.

(130 pages)

PUBLIC ABSTRACT

Supporting Students with Psychiatric Disabilities in Postsecondary Education:
Important Knowledge, Skills, and Attitudes

by

Scott I. Kupferman, Doctor of Philosophy

Utah State University, 2014

Students with psychiatric disabilities are the largest group of students with disabilities enrolled in colleges and universities. Common psychiatric disabilities include major depression, post-traumatic stress disorder, and schizophrenia. Although their enrollment is high, most students with psychiatric disabilities drop out prior to graduation. Improved services to help these students achieve their college and university goals are needed. Disability service professionals provide services to these students, yet oftentimes are not prepared to do so. The purpose of the current study was to identify knowledge, skills, and attitudes that disability service professionals need to possess in order to provide beneficial services to students with psychiatric disabilities.

The current study began by asking two groups of experts to develop and agree upon a list of knowledge, skill, and attitudinal items. These items were then sent in the form of an electronic survey to disability service professionals who are members of the Association on Higher Education and Disability (AHEAD). Based upon their response, items that were closely related were grouped into five categories: (a) Ethical and Legal Considerations, (b) Accommodations and Supports, (c) Disability Aspects, (d)

Community Resources, and (e) Campus Considerations. The results were explored, how these results related to the field of disability services were discussed, and recommendations for future research were presented.

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CHAPTER I

INTRODUCTION

Importance of the Problem

In 2009, the Government Accountability Office (GAO) undertook one of the most comprehensive studies of students with disabilities in postsecondary education. They analyzed federal and state data, conducted site visits, interviewed professionals, and reviewed laws, regulations, and literature. The GAO determined that approximately 11 percent of students enrolled in postsecondary education had a disability. The largest subgroup (24.3%) was students with psychiatric disabilities (GAO, 2009). This subset included students with post-traumatic stress disorder, depression, schizophrenia, bipolar disorder, obsessive-compulsive disorder, panic disorder, personality disorder, and other related disabilities (Kukla & Bond, 2010). Although comprehensive, the GAO study may have underestimated the prevalence of students with psychiatric disabilities in postsecondary education. Students who were undiagnosed or chose not to self-disclose during the data collection process represent an additional uncounted population (Belch, 2011).

It is clear that students with psychiatric disabilities are enrolled in postsecondary education at high rates. However, approximately 86 % withdraw prior to degree completion, which translates to 4.29 million “dropouts” each year (Kessler, Foster, Saunders, & Stang, 1995; Salzer, Wick, & Rogers, 2008). In contrast, 47 % of students with other types of disabilities and 36 % of students without disabilities withdraw prior to degree completion (Hurst & Smerdon, 2000). Being that postsecondary education degree

completion is often an important step toward obtaining gainful employment, the high dropout rate has been identified as one reason why people with psychiatric disabilities experience a 90 % unemployment rate (Fleming & Fairweather, 2011; National Alliance on Mental Health, 2012; President's New Freedom Commission on Mental Health, 2003). With these noteworthy statistics in mind, calls for improved postsecondary education services for students with psychiatric disabilities have been plentiful (GAO, 2009; McEwan & Downie, 2013; National Alliance on Mental Illness, 2012).

A portion of these calls for improvement have been directed toward disability service professionals, who are the designated professionals on campus to support students with disabilities. Sharpe, Bruininks, Blacklock, Benson, and Johnson (2004) found that although disability service professionals were adequately prepared to provide services to students with learning and physical disabilities, they often lacked the competencies necessary to provide services to students with psychiatric disabilities. Examples of challenges that arose included the identification and outreach to students, specification of appropriate academic accommodations, and creation of linkages between disability services and other mental health related service providers (Sharpe et al., 2004). Scholars have suggested that disability service professionals need to possess a unique set of knowledge, skills, and attitudes to support students with psychiatric disabilities in postsecondary education (Collins & Mowbray, 2005; McEwan & Downie, 2013). To date, these knowledge, skills, and attitudes have not been identified. Therefore, the purpose of this study was to begin the exploratory process of identifying knowledge, skills, and attitudes that disability service professionals must possess in order to provide beneficial services to students with psychiatric disabilities in postsecondary education.

Context and Significance of the Study

A psychiatric disability refers to the collection of all diagnosable mental impairments that limit one or more major life activities by causing disturbances in thinking, feeling, relating, and/or functional behaviors (Souma, Rickerson, & Burgstahler, 2001). Common psychiatric disabilities include major depression, schizophrenia, bipolar disorder, obsessive-compulsive disorder, panic disorder, post-traumatic stress disorder, and personality disorder (Gladding & Newsome, 2009). Psychiatric disabilities are highly complex and idiosyncratic, and managing a psychiatric disability is equally complex. Unlike a physical illness, such as diabetes, psychiatric disabilities present no clear pattern of symptoms, treatment, length or degree of severity of episode, and prognosis (Rutman, 1994). Most people with psychiatric disabilities use a combination of medication, psychosocial treatments (i.e., psychotherapy, cognitive behavioral therapy, self-help and support groups, etc.), and services (i.e., case management, peer services, housing supports, etc.) to manage their disability. According to the National Institute of Mental Health (2008), approximately 20 % (about one in five) of people over the age of 18 have a psychiatric disability in a given year. The diagnosis of a psychiatric disability often occurs between the ages of 18 to 24 years old (Kessler, Berglund, & Demler, 2005), precisely when most people are enrolled in postsecondary education.

All students in postsecondary education face challenges, including (a) high stakes academic pressure and competition, (b) minimal academic support compared with support in high school, (c) faculty and staff who are more distant than high school teachers and counselors, (d) potential social isolation and alienation as students transition

to a new environment, (e) an undergraduate culture of excessive alcohol and drug abuse, and (f) the pressure of long-term financial debt (Archer & Cooper, 1998; Kadison & DiGeronimo, 2004). Students with psychiatric disabilities often face additional challenges. For example, psychiatric symptoms can result in functional limitations related to short-term memory, critical thinking, elaboration, and metacognition, including planning, organizing, and regulating learning (Hartley, 2010). Further, the side effects of psychotropic medications have been found to reduce students' attention, concentration, and stamina (Weiner & Wiener, 1996). Other challenges facing students with psychiatric disabilities include stigma, lower academic self-confidence, and conflicted peer relationships (Hartley, 2010).

Legislation such as Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990 are intended to protect students with psychiatric disabilities and other types of disabilities from discrimination in postsecondary education, as well as to ensure that essential services (i.e. accommodations) are provided. When essential services are appropriately provided, students with disabilities are often as academically successful as students without disabilities (Salzer et al., 2008). However, in a national study, Salzer and colleagues (2008) found that little is known about providing services to students with psychiatric disabilities in postsecondary education. Belch (2011) suggested that because of the complex nature of psychiatric disabilities and the related challenges they bring, students with psychiatric disabilities are the least understood and least supported group of students in postsecondary education.

The responsibility of providing services to students with psychiatric disabilities in postsecondary education falls upon disability service professionals. Counseling centers

also fill an important role, however their services are often limited to the short-term mental health needs of all students on campus (Mowbray et al., 2006). Disability service professionals have a range of responsibilities, including but not limited to: (a) providing consultation, collaboration, and awareness between programs and departments to ensure equal access for students with disabilities, (b) disseminating information on programs and services, (c) providing consultation with faculty and staff, (d) advocating for student instruction in learning strategies, (e) assisting students with disabilities in assuming the role of self-advocate, and (f) developing and establishing written policies or guidelines for determining and accessing reasonable accommodations, institutional rights and responsibilities with respect to service provision, confidentiality of disability information, and resolving formal complaints regarding the determination of reasonable accommodations (Dukes & Shaw, 1999).

Although professional responsibilities are fairly consistent across postsecondary education institutions, the professional characteristics of disability service professionals vary (Harbour, 2008; Shaw & Dukes, 2001; Tagayuna, Stodden, Chang, Zeleznik, & Whelley, 2005). Some disability service professionals specialize in one area of disability (i.e. learning disabilities) and work solely with that population of students. The majority are generalists who provide services to students with a range of documented disabilities (AHEAD, 2013; Harbour, 2008). Disability service professionals come from a variety of backgrounds, with earned degrees in human resources, risk management, higher education administration, legal affairs, rehabilitation counseling, psychology, special education, and other fields (AHEAD, 2013). The diversity of professional characteristics has led the Association on Higher Education and Disability (AHEAD) to become the

unifying voice for disability service professionals. As the premier association for disability service professionals, AHEAD aims for consistency among disability service professionals by encouraging on-going professional development. Their Code of Ethics (AHEAD, 1996) stated that disability service professionals should continually participate in professional activities and educational opportunities that are designed to strengthen the quality of life for students with disabilities. This includes the on-going development of teaching strategies, academic skills, and research and knowledge pertinent to the highest quality of disability service delivery whenever and wherever it occurs (AHEAD, 1996). The current study included a research partnership with AHEAD that aimed to enhance professional development opportunities through the identification of knowledge, skills, and attitudes that are important for disability service professionals to possess in order to provide beneficial services to students with psychiatric disabilities in postsecondary education.

Purpose Statement and Research Questions

The purpose of this study was to begin the exploratory process of identifying knowledge, skills, and attitudes that disability service professionals must possess in order to provide beneficial services to students with psychiatric disabilities in postsecondary education. This purpose was achieved by answering the following research questions:

RQ1: What knowledge is important for disability service professionals to possess in order to provide beneficial services to students with psychiatric disabilities in postsecondary education?

RQ2: What skills are important for disability service professionals to possess in order to provide beneficial services to students with psychiatric disabilities in postsecondary education?

RQ3: What attitudes are important for disability service professionals to possess in order to provide beneficial services to students with psychiatric disabilities in postsecondary education?

Definition of Key Terms

Accommodations: Adjustments to classroom, curriculum, or institution policies and procedures to address inaccessibility posed by disability limitations (Shaw & Dukes, 2005).

Association on Higher Education and Disability (AHEAD): The premier organization of disability service professionals who advocate for full participation of students with disabilities enrolled in colleges and universities (AHEAD, 2013).

Attitude: A psychological tendency that is expressed by evaluating a particular entity with some degree of favor or disfavor (Eagly & Chaiken, 1993).

Delphi Survey: A systematic consensus-gaining process used to survey and collect the opinions of experts on a particular subject (Yousuf, 2007).

Disability Service Professional: The term disability service professional refers to the people who work in disability service offices at postsecondary education institutions. This broad term refers to advisors, counselors, and administrators of disability service offices (AHEAD, 2010).

Knowledge: Knowledge is a familiarity with someone or something, which can include facts, information, descriptions, or skills acquired through experience or education (Cavell, 1990).

Postsecondary Education: Postsecondary education is a formal educational experience after high school that is often in the form of a two-year college, four-year university, or vocational/technical education (Shaw, 2009).

Psychiatric Disability: A psychiatric disability is a mental impairment that limits one or more major life activities. Students with psychiatric disabilities are those who have provided disability documentation to a postsecondary education institution. This documentation is from a qualified licensed professional who indicates a DSM-IV TR Axis I or Axis II diagnosis (Disabled Student Programs and Services, Title 5 Regulations, Sections 56000-56076).

Skills: A skill is the learned ability to carry out pre-determined results often with the minimum outlay of time, energy, or both. In other words the abilities that one possesses. Skills can be divided into domain-general and domain-specific skills. For example, in the domain of work, some general skills would include time management, teamwork and leadership, self-motivation and others, whereas domain-specific skills would be useful only for a certain job (Cavell, 1990).

Summary

This chapter provided a brief statement of the problem on which this study addressed, a context for the problem, the purpose and research questions, and definitions of important terms. Chapter II provides a review of relevant literature, including an

overview of psychiatric disabilities, considerations related to students with psychiatric disabilities in postsecondary education, and factors related to disability service professionals. Chapter III describes the methodology used in this study, including a three-round Delphi survey with two panels of experts (disability service experts and students with psychiatric disabilities), a six-member field test, and an AHEAD-sponsored survey with a national sample of disability service professionals. Chapter IV presents findings from the AHEAD-sponsored survey. Lastly, Chapter V provides a discussion of the findings, implications, and future research recommendations.

CHAPTER II

REVIEW OF THE LITERATURE

An Overview of Psychiatric Disabilities

Mental illness is a term that describes a broad range of mental and emotional conditions. The term psychiatric disability is used when a mental illness significantly interferes with the performance of an individual's major life activities, such as learning, working and communicating, among others (Gladding & Newsome, 2009). Most researchers agree upon four main categories of psychiatric disabilities: (a) schizophrenia and related disorders, (b) mood disorders, (c) anxiety disorders, and (d) personality disorders.

Schizophrenia and Related Disorders

Schizophrenia is considered to be the most severe of all psychiatric disabilities. It is a complex disability that affects individuals in diverse ways, including the ability to think clearly, to sort out and interpret incoming sensations, and to act decisively (Flanagan, Zaretsky, & Moroz, 2010). Flanagan and colleagues suggested that difficulties in social functioning and deficits in social skills are also common features. Schizophrenia is a psychotic disorder that typically includes episodes of impaired reality, as indicated by disorientation and confusion, odd sensory experiences (i.e. hallucinations) false beliefs (i.e. delusions), and/or impairments in the emotional domain (i.e. depression). Gladding and Newsome (2009) noted that schizophrenia is also considered a thought disorder, as individuals often display distortions in thought content and language and thought processes (i.e. disorganized speech). The course of the disability is

highly individualized. For some people, acute episodes may intertwine with periods of normal or near-normal adjustment. In other instances, the disability is relatively constant, punctuated by periods of temporary improvement and deterioration (Flanagan et al., 2010). Related disabilities include schizophreniform disorder, which applies when all the symptoms of schizophrenia are present, but the duration of the disability is less than 6 months, and schizoaffective disorder, in which symptoms of schizophrenia are accompanied by depression and/or mania (Flanagan et al., 2010; Gladding & Newsome, 2009).

Mood Disorders

The two types of mood disabilities (also known as affective disorders) are depressive disorder and bipolar disorders. Mood disorders are relatively common. During a lifetime, approximately 10-25% of women and 5-12% of men will experience a major depressive episode (Flanagan et al., 2010). In regards to depression, symptoms include negative and pessimistic beliefs, distorted negative self-image (including feelings of guilt and worthlessness), suicidal thoughts, and difficulty concentrating (American Psychiatric Association, 2013). Depression also includes physical symptoms such as lethargy, insomnia or hypersomnia, loss of appetite or overeating, and lack of sexual interest (American Psychiatric Association, 2013). Depression is the widest-ranging psychiatric disability in terms of severity and duration. Not all people with depression suffer from an ongoing disability. In comparison to depression, people with bipolar disorder tend to experience significant functional limitations (Gladding & Newsome, 2009). Bipolar disorder differs from major depression primarily by the presence of mania, which is an episode of elevated or irritable mood (Gladding & Newsome, 2009).

Manic episodes last from several days to several months. In its most severe form, bipolar disorder involves frequent alternation between manic and depressive episodes. Bipolar disorder is classified into two primary types. Bipolar I disorder is the most severe form and Bipolar II is less severe (Flanagan et al., 2010).

Anxiety Disorders

According to Flanagan and colleagues (2010), anxiety disorders are the most prevalent type of psychiatric disability. People with anxiety disorders usually recognize their symptoms and are not out of touch with reality (Gladding & Newsome, 2009). Anxiety disorders often co-occur with other psychiatric disabilities. One of the most debilitating anxiety disorders is panic disorder, which is characterized by sudden and unanticipated attacks of an imminent sense of doom, accompanied by symptoms such as an increased heart rate, difficulty breathing, dizziness, and terror (Flanagan et al., 2010). A second type of anxiety disorder is post-traumatic stress disorder (PTSD), which is an extreme emotional reaction to a life trauma, such as combat, rape, or an accident, in which the individual re-experiences the feared event in flashbacks and nightmares (Flanagan et al., 2010). Symptoms include a reduced interest in previous activities, estrangement from others, and poor concentration. (American Psychiatric Association, 2013). A third type of anxiety disorder is phobic disorder, which is characterized by an intense fear of an object or situation representing no real danger. Lastly, a fourth type of anxiety disorder is obsessive-compulsive disorder, which involves instructive and recurring thoughts and impulses, known as obsessions, and ritualistic repetitions of illogical behaviors, known as compulsions (Flanagan et al., 2010; Gladding & Newsome, 2009).

Personality Disorders

The final category of psychiatric disabilities is personality disorders, which are defined by the presence of inflexible and maladaptive personality traits that cause significant functional limitations or subjective distress (Flanagan et al., 2010).

Personality disorders are grouped into three clusters. Flanagan and colleagues provided a comprehensive list of these clusters. First, the Odd/Eccentric Cluster consists of paranoid personality disorder (characterized by pervasive mistrust of others), schizoid personality disorder (characterized by detachment from social relationships), and schizotypal personality disorder (characterized by social deficits due to cognition or behavior eccentricities). The Dramatic/Erratic Cluster consists of antisocial personality disorder (characterized by violation of the rights of others without remorse), borderline personality disorder (characterized by impulsivity and instability of interpersonal relationships), narcissistic personality disorder (characterized by exaggerated sense of self-importance), and histrionic personality disorder (characterized by excessive emotionality and attention seeking). The Anxious/Fearful Cluster consists of avoidant personality disorder (characterized by extreme social discomfort), dependent personality disorder (characterized by submissive behavior), and obsessive-compulsive personality disorder (characterized by pervasive orderliness and control).

Commonalities Across Psychiatric Disabilities

Across the four main categories of psychiatric disabilities are common characteristics. For example, psychiatric disabilities often have an irregular nature. This irregularity may create problems in establishing or maintaining consistent routines in work, school, and daily living (National Institute of Mental Health, 2008). A second

common characteristic is the stress associated with nondisclosure. Anxiety often accompanies the effort to hide a psychiatric disability and its symptoms. Many students do not disclose a psychiatric disability for fear of stigma and discrimination. This fear may be compounded if a student worries that admission to a postsecondary education institution may not be offered or if an employee feels that a job is in jeopardy (National Institute of Mental Health, 2008). A third common characteristic is the side effects of medications. Despite their effectiveness for many people, medications can also have side effects that create difficulties in school or at work (Flanagan et al., 2010; Gladding & Newsome, 2009). Each person has an adjustment period after starting, changing the dose of, or stopping medication. Side effects often include drowsiness, dizziness, dry mouth, nervousness, headaches, shakiness, confusion, and weight gain (Gladding & Newsome, 2009). A fourth common characteristic is co-morbidity. The National Institute of Mental Health (2008) reported that 30 % of people with psychiatric disabilities also have had a diagnosable alcohol and/or drug abuse disorder. Further, 53 % of people who have had substance abuse disorders have had one or more psychiatric disability during their lifetimes (National Institute of Mental Health, 2008). Substance abuse is a complicating factor for people with psychiatric disabilities because of its interaction with psychotropic medications. The presence of co-morbidity with substance abuse and a psychiatric disability has consistently been associated with negative outcomes including increased relapses and hospitalizations, housing instability and homelessness, violence, economic burden on the family, and treatment nonadherence (Drake & Brunette, 1998), as well as problems with the legal system and low postsecondary education completion and employment rates (Compton, Weiss, West, & Kaslow, 2005; Flanagan et al., 2010).

Stigma and Attitudes Related to Psychiatric Disabilities

Psychiatric disabilities are not seen as an illness or disorder in the same way that other chronic illnesses are viewed. People with psychiatric disabilities are often faced with stigma (Unger, 2007). Unger (2007) defined stigma as “a mark of shame or discredit” (p. 42). The label of a psychiatric disability often carries with it shame and discredit; shame on the part of the person with the diagnosis and discredit on the part of the person interacting with the person with the diagnosis (Unger, 2007). Corrigan, Markowitz, and Watson (2004) identified three major effects of stigma: (a) social rejection or isolation, (b) lowered expectations, and (c) internalized stigma. In regards to social rejection or isolation, society in the past has separated and isolated people with psychiatric disabilities through hospitalizations, group homes, and day treatment centers. Although progress has been made, few individuals receive treatment that is designed to integrate them back into more meaningful roles and activities within their communities (Unger, 2007). Unger noted that the progress made is one of the reasons for the increased enrollment of people with psychiatric disabilities in postsecondary education.

The second major effect of stigma is lowered expectations. Because people with psychiatric disabilities are often stereotyped, they are discouraged from having high expectations. The “mentally ill” label carries with it a connotation of “different” and “less than” (Gladding & Newsome, 2009). This reinforces low self-esteem that makes it difficult to create or take advantage of many postsecondary education, employment, and independent living opportunities. It also leads to internalized stigma, which is the essence of low self-esteem (Gladding & Newsome, 2009). Internalized stigma is the third major effect of stigma and occurs when a person incorporates society’s values into

his or her own values. Unger (2007) identified internalized stigma as the most devastating effect of stigma and cited case studies of people feeling helpless, hopeless, and never able to shed the label of being mentally ill because it shaped everything they did or thought about themselves.

Faculty and staff often hold negative attitudes and misconceptions about people with psychiatric disabilities (Becker, Martin, Wajeih, Ward, & Shern, 2002; Unger, 2007). Most faculty and staff know very little about psychiatric disabilities and how they may affect students in the classroom and in other areas of campus life. Gladding and Newsome (2009) and Unger (2007) reported that faculty and staff expressed concern that students with psychiatric disabilities will be disruptive, violent, dangerous, or unable to meet academic standards. Until the passage of the Americans with Disabilities Act in 1990, some colleges and universities had dismissal policies for those who were diagnosed with psychiatric disabilities, even if there was no evidence of poor academic performance or dangerous behaviors (Mowbray, 1999). Despite non-discrimination laws, as well as evidence that many people with psychiatric disabilities can successfully complete degree requirements, attitudes in many postsecondary education institutions have been slow to change (Becker et al., 2002; Mowbray, 1999). Mowbray reported that in her experience, faculty and staff were often reluctant to spend time discussing psychiatric disability-related services and were more interested in talking about keeping people with psychiatric disabilities out of the classroom. As discussed in later sections, there are many accommodations and supports that can help students with psychiatric disabilities overcome what may seem like insurmountable barriers to education (Becker et al., 2002).

However, sometimes the biggest challenge is addressing the stigma and related attitudes that surround psychiatric disabilities.

Changing Concept of Psychiatric Disabilities

Although stigma has remained a consistent challenge, since the mid-1960s there has been a shift in the way that people with psychiatric disabilities are viewed and treated (Gladding & Newsome, 2009). Prior to this time, a psychiatric disability was perceived as being a severe disease of prolonged duration that resulted in moderate to severe limitations (Goldman, Gattozzi, & Yawke, 1981; Unger, 2007). Treatment was based on a medical model that attempted to cure the disability (Unger, 2007). During the late 1960s and early 1970s, new medications were developed that more effectively controlled the symptoms of psychiatric disabilities. People who previously had been hospitalized for decades often were able to manage activities of daily living outside of the hospitals, and there was a movement across the United States to move these individuals into the community (Gladding & Newsome, 2009). This movement became known as deinstitutionalization. Deinstitutionalization embraced the social model of disability, which revolved around the belief that disabilities result from the conditions people are living in or have been raised. Potential causative factors for psychiatric disabilities viewed through the social model include poverty, racial and gender discrimination, physical and emotional trauma, and marginalization (National Institute of Mental Health, 2008).

In 1977, the National Institute of Mental Health reported a 66 % decrease in the number of individuals residing in state mental hospitals (National Institute of Mental Health, 2008). People who had resided in hospitals for years, however, needed supports

in the community. Unfortunately, not only did communities have limited funds to meet this need, they were also not prepared to provide the services needed by these individuals. Although community mental health centers had been established in many regions of the United States in the 1960s and 1970s, activities such as integration into educational settings were not among their priorities (Collins & Mowbray, 2005). In response to this lack of services, the National Institute of Mental Health began funding programs at various postsecondary education institutions to demonstrate that students with psychiatric disabilities could be successful with appropriate services (National Institute of Mental Health, 2008). Funding for these demonstration programs phased out over time and disability service offices have since been designated to fill the void.

Students with Psychiatric Disabilities in Postsecondary Education

Following the period of deinstitutionalization, students with psychiatric disabilities have enrolled in postsecondary education at record rates. This increase in enrollment has been clearly documented in the literature. For example, Lambeth, Collins, and Roberts (2009) found that while enrollment rates for students with physical and sensory disabilities have remained relatively stable, students with psychiatric disabilities in postsecondary education has increased by over 800 %. Lambeth and colleagues highlighted the University of Illinois in particular. In the fall semester of 2002, 204 students with psychiatric disabilities registered with the university's disability services office. The number increased to 481 in the spring of 2006. Belch (2011) suggested that Lambeth and colleagues' statistics do not provide a complete picture because not all students with psychiatric disabilities formally identify themselves as having a disability. The enrollment rate is likely to be higher than what Lambeth and colleagues reported

(Belch, 2011; GAO, 2009). Some students in postsecondary education are undiagnosed with a psychiatric disability or chose not to self-disclose. The extent of the undiagnosed and undisclosed student population is unknown (Belch, 2011).

Despite their high enrollment rates, few students with psychiatric disabilities persist to degree completion. The National Comorbidity Survey revealed that 86 percent of students with psychiatric disabilities withdraw prior to degree completion, which translates to approximately 4.29 million “dropouts” each year (Kessler et al., 1995). Megivern, Pellerito, and Mowbray (2003) explored why this dropout rate was so high. They explored barriers to postsecondary education for people with psychiatric disabilities through qualitative interviews with 35 participants. Each participant had withdrawn from postsecondary education at least once during his or her education (with an average number of withdrawals being three occasions). The onset of the psychiatric disability occurred prior to entering postsecondary education for half of the participants, and during postsecondary education for the rest. Nearly all participants reported that their dropout was due in part to inadequate disability services (i.e. lack of accommodations). Megivern and colleagues (2003) included a longitudinal phase of their study and found that less than half of their participants were employed at two and five years post-study. The authors indicated that the lack of a postsecondary education degree contributed to this high unemployment rate, which is consistent with findings from other studies (Getzel, 2005; Gilmore, Bose, & Hart, 2001; President’s New Freedom Commission on Mental Health, 2003; Zafft, Hart, & Zimbrich, 2004).

Disability Services in Postsecondary Education

The provision of services to students with disabilities in postsecondary education is a mandate that may be traced back to the Fourteenth Amendment. This amendment stated that no state “shall make or enforce any law which shall abridge the privileges or immunities of the citizens of the United States; deprive any person of life, liberty, or property without due process of law; or deny to any person within its jurisdiction the equal protection of the laws” (U.S. Const. amend. XIV, § 1). To enforce these rights, the Fourteenth Amendment gave Congress the authority to pass laws such as the Civil Rights Act of 1964 (Jarrow & Lissner, 2008). The Civil Rights Act of 1964 prohibited discrimination based on race, color, religion, or national origin in employment and places of public accommodation. It also established a clear federal policy against discrimination in federally funded postsecondary education institutions. Building upon the Civil Rights Act of 1964, Title IX of the Educational Act Amendments of 1972 prohibited discrimination on the basis of sex against participants in programs or activities receiving federal funds, including postsecondary education institutions (Jarrow & Lissner, 2008).

For students with disabilities, two landmark civil rights laws related to postsecondary education were the Rehabilitation Act of 1973 (specifically Section 504) and the Americans Disabilities Act of 1990. Prior to the passage of this legislation, students with disabilities were often refused admittance to postsecondary education institutions solely on the basis on disability (Weiner & Wiener, 1996). The Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990 ensured equal access to postsecondary education. These two pieces of legislation also mandated

the provision of postsecondary education disability services and guided the work of disability service professionals (Jarrow & Lissner, 2008).

Section 504 of the Rehabilitation Act of 1973

After several failed attempts by Representative Charles Vanik and Senator Hubert Humphrey to include disability as an amendment in the Civil Rights Act, they proposed an anti-discrimination passage (Section 504) within the Rehabilitation Act of 1973 (P.L. 93-112). The primary mandate of Section 504 was to provide equal access to postsecondary education (Jarrow & Lissner, 2008). As Jarrow and Lissner noted, although Section 504 has been reinforced and expanded by the Americans with Disabilities Act of 1990, it still provides the most direct statement and the clearest guidance for disability service professionals in postsecondary education. The specific wording of Section 504 is included below:

No otherwise qualified handicapped individual in the United States shall, solely by reason of his handicap, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving federal financial assistance or under any program or activity conducted by any Executive agency or by the United States Postal Service (Rehabilitation Act of 1973, Public Law 93-112 § 504)

The wording of Section 504 makes it clear that it is a civil rights statute designed to ensure equal opportunities for people with disabilities. In contrast to earlier civil rights legislation, Section 504 required the removal of physical and procedural barriers as well as attitudinal barriers (Jarrow & Lissner, 2008).

In addition to its equal access wording, Section 504 contained three core principles that Jarrow and Lissner (2008) suggested disability services professionals should follow when providing services to students with disabilities: (a) equality of opportunity - nondiscrimination through decisions based on facts, not assumption or stereotype; (b) equitable versus identical treatment - providing accommodations, modifications, and auxiliary aids identified through an interactive process; and (c) balance competing equities - determining reasonable accommodations through individualized decision-making in context. The influence of these three core principles is seen throughout the United States Department of Education's Section 504 regulations that apply to postsecondary education, which includes the general treatment of students, admissions and recruitment, academics, housing, research, financial aid, counseling, physical education, and transportation (AHEAD, 2010).

Americans with Disabilities Act of 1990

Building upon the Rehabilitation Act of 1973, the Americans with Disabilities Act of 1990 (ADA; P.L. 101-3361) extended civil rights for people with disabilities beyond federally funded activities and programs to the broader venues in society. The ADA is divided into five titles: (a) Title I: Employment, (b) Title II: Public Services - Public Transportation, State and Local Government, (c) Title III: Public Accommodations and Services Operated by Private Entities, (d) Title IV: Telecommunications, and (e) Title V: Miscellaneous Provisions. Much of the ADA does not directly relate to students with disabilities in postsecondary education. Yet, it has impacted their lives. For example, Title I requirements guide student employment policies in postsecondary education and improves the career prospects for graduating students with disabilities. A second

example is Title III, which extends equal access to proprietary and private postsecondary education institutions (Jarrow & Lissner, 2008).

The ADA has also impacted disability service professionals. For example, in order for students to receive disability services, disability service professionals must ensure that students have a documented disability (Jarrow & Lissner, 2008; Shaw, 2009). According to the ADA, a person with a disability (1) has a physical or mental impairment that substantially limits one or more major life activities; OR (2) has a record of such an impairment; OR (3) is regarded as having such an impairment (P.L. 101-3361). Yet, judicial interpretations and the concept of mitigating factors (i.e. medication) have dramatically narrowed the definition of a disability. Megivern and colleagues (2003) found that very few students with psychiatric disabilities met the ADA's narrow definition. Kihara and Hueffner (2008) posed the dilemma in question form: Is an individual with a psychiatric disability still disabled if they are stable and asymptomatic and/ or their psychiatric symptoms are minimized by medication? Megivern and colleagues (2003) concluded that the ADA has done the least amount of good for people with psychiatric disabilities in comparison to other disability groups. In 2009, the ADA Amendment Act (ADAAA) was passed with the intention of expanding the definition of disability to the original intent of Congress (Shackelford, 2009). In relation to postsecondary education, the ADAAA encouraged disability service professionals to move from focusing on the definition of disability to how a student's disability-related functional limitations impact his or her educational experience (Shaw, Keenan, Madaus, & Banerjee, 2010). This shift toward functional limitations placed increased emphasis on

disability service professionals' knowledge, skills, and attitudes, particularly in regard to the determination of reasonable accommodations and services.

Accommodations and Services

The provision of accommodations is the most common service that disability service professionals provide to students with disabilities in postsecondary education (AHEAD, 2012). An accommodation is a modification to academic requirements as necessary to ensure that such requirements do not discriminate against students with disabilities, or has the effect of excluding students solely on the basis of disability (AHEAD, 2012). This definition includes modifications as needed in policies, practices, and procedures for ensuring accessibility of all aspects of academic and nonacademic activities (i.e., admissions and recruitment, admission to programs, academic adjustments, housing, financial assistance, physical education, counseling, etc.). In order for a student to receive an accommodation, he or she must request an accommodation. Not all students know what accommodations and services are available or how to gain access to them. In order to facilitate this process, disability service professionals have an obligation to make their services known. Further, students may need help in determining the functional limitations they will experience in postsecondary education and the effect these limitations will have on their academic success. Table 1 provides a summary of common types of accommodations for students with psychiatric disabilities (Boston University, 2008).

Table 1

*A Summary of Common Types of Accommodations for Students with Psychiatric**Disabilities (Boston University, 2008)*

Classroom Accommodations	<ul style="list-style-type: none"> • Preferential seating: Seating in front, by door, helps reduce audio/visual distractions • Coach/Mentor: Having someone (another student, or a counseling staff member) to accompany a student to class and/or stay in class with the student. • Assigned classmate as volunteer assistant: Similar to an accompanier, an assistant may help take notes or provide informal support. • Beverages permitted in class: Helps alleviate dry mouth or tiredness caused by medications.
Lecture Accommodations	<ul style="list-style-type: none"> • Pre-arranged breaks: Helps student anticipate and manage anxiety, stress, or extreme restlessness caused by medication. • Tape Recorder: Alleviates pressure of note taking, freeing student to attend and participate more fully in class. • Note taker: Similar to above, having someone in class to take notes alleviates anxiety of having to capture all the information; sometimes the anxiety of attending class interferes with effective note taking. • Photocopy or Email attachment of another's notes: If note takers are not available, then securing from another student helps free him or her to attend and participate more fully in class.
Examination Accommodations	<ul style="list-style-type: none"> • Change in test format: Altering an exam from a multiple choice format to an essay format may help students demonstrate their knowledge more effectively and with much less interference from anxiety or a learning disability. • Permit use of computer software programs or other technological assistance: Writing may be difficult due to medication side effects that create muscular or visual problems. • Extended time: Allowing a specific extra amount of time, to be negotiated before the exam, allows the student to focus on the exam content instead of the clock, and lessens the chance that anxiety or other symptoms will interfere with his or her performance. • Segmented: Dividing an exam up into parts and allowing student to take them in two or three sessions

	<p>over 1-2 days helps reduce the effect of fatigue and focus on one section at a time.</p> <ul style="list-style-type: none"> • Permit exams to be individually proctored, including in hospital: A non-distracting, quiet setting helps reduce interference from anxiety or other symptoms or medication side effects. • Increase frequency of tests or examinations: Giving student more opportunities to demonstrate knowledge creates less pressure than having just a midterm or a final. • Permit exams to be read orally, dictated, scribed or typed: Anxiety, other symptoms, medication side effects, or a learning disability may interfere with mental focus, concentration, ability to retrieve information, and/or writing capacity during a typical paper-pencil test. Reducing the amount of external pressure and distractions gives the student an equal opportunity to demonstrate his or her expertise without the disability skewing the results.
Assignment Accommodations	<ul style="list-style-type: none"> • Substitute assignments: Written exercises or other out-of-class exercise may be necessary for a student with a psychiatric disability to best demonstrate their grasp of the required knowledge. • Advance notice of assignments: Helps a student anticipate and plan time, energy, and workload, and arrange for any support or academic adjustments. • Delay in assignment due dates: A student may need to go into the hospital for a week for a medication check or a brief emergency; extra time on a due date might be all that is needed for a student to pass the course. The delay should be specified; i.e., a new due date should be negotiated and formalized, not be left open-ended. • Handwritten rather than typed papers: Relieves an additional source of pressure if student does not yet have typing skills. The time tests and accuracy required in a typing course make them a very high stress experience for students who are just returning to school. In addition, students and teachers should be aware of voice activated computer software that offers an alternative to keyboard use. • Assignment assistance during hospitalization: Staying connected to a student during a course while he or she is in the hospital may mean the student can finish the course as planned, and not have to take an incomplete or withdrawal grade, lose their money, or repeat the

	<p>course again. (The exacerbation of psychiatric symptoms does not necessarily preclude the student's ability to complete schoolwork, and in some cases seems to help them leave the hospital sooner because they academic responsibilities to meet.)</p> <ul style="list-style-type: none"> • Use alternative forms for students to demonstrate course mastery: A student may be better able to demonstrate his or her knowledge in ways that don't require lots of writing (i.e. a narrative tape instead of a written journal) or time pressure (an essay exam rather than only multiple choice, or an extra paper if the student has not performed well on the exam due to his or her disability). • Textbooks on tape: May help a student whose vision or concentration interferes with their reading ability.
Administrative Accommodations	<ul style="list-style-type: none"> • Providing modifications, substitutions, or waivers of courses, major fields of study, or degree requirements on a case-by-case basis: These adjustments should be considered on an individual basis, and only if the changes requested would not substantially alter essential elements of the course or program, or if courses are required for licensure) • Provide orientation to campus and administrative procedures: Increasing a student's familiarity with an environment and the system help him or her to feel more confident and confident, and allow the student to plan, strategize, anticipate trouble spots, and know where to go for assistance. • Provide assistance with registration/financial aid: Helping a student cut through red tape and coaching them thorough the intricate but critical process of financial aid eliminates a potentially debilitating amount of stress and hassle. • Flexibility in determining "Full Time" status (for purposes of financial aid and health insurance): A school often has the power to declare a student "-time" even if s/he is part-time. If the disability is such that a part-time load is equal in burden to a full time load for a student without disability, such a case can be made. (This adjustment does not entitle a student to full time financial aid). • Assistance with selecting classes and course load: Early morning classes or high stress classes such as keyboarding could set a student up failure. • Parking passes, elevator key, access to lounge: Anxiety and other psychiatric symptoms can

	<p>physically and emotionally prevent a student from crossing the campus or climbing several sets of stairs or sustaining energy for a day of classes, when they would otherwise be capable of attending class. These supports make the environment more accessible and “friendly,” and are usually cheap and easy to obtain.</p> <ul style="list-style-type: none"> • Incompletes rather than failures or withdrawals if relapse occurs: If a student has finished most of the coursework but is unable to complete the remainder before the semester’s end, negotiating an incomplete usually means that a student will not have to repay or retake the entire course in order to finish it.
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In addition to accommodations, some postsecondary educational institutions also offer support services, which are not required by law but help students enroll and persist to degree completion. Unger (2007) found that support services include registration assistance, academic counseling, vocational counseling, study and test-taking assistance, liaison with campus and community agencies, individualized orientations to the campus, career counseling, and job placement. These support services may be classified as “supported education” (Bellamy & Mowbray, 1998; Unger, 2007). A formal definition of supported education is a psychiatric rehabilitation intervention that provides assistance, preparation, and support for students with psychiatric disabilities in enrolling and completing postsecondary education (Mowbray, Szilvagy, & Brown, 2002). Originally, supported education programs were categorized within one of the following three models: (a) a self-contained classroom model in which students with psychiatric disabilities attend classes on campus designed for them, (b) an on-site model sponsored by a college or university providing individual rather than group-based support, and (c) a mobile support model that provides services through a mental health agency to help individuals attain their educational goals (Unger, 2007). The supported education models

have evolved into a classification scheme based upon location: at a clubhouse, on site at a college, or a freestanding model (Mowbray, Megivern, & Holter, 2003). No matter the model used, disability service professionals are important members of supported education programs (Collins & Mowbray, 2005; Mowbray et al., 2003; Unger, 2007).

The Role of Disability Service Professionals

Postsecondary education institutions may not discriminate against students with disabilities, exclude them from participation, or deny them benefits of its services, programs, and activities (AHEAD, 2012; Shaw & Dukes, 2001). Meeting this mandate is often up to disability service professionals. Since 1977, disability services in postsecondary education has emerged as a profession with its own professional organization, the Association on Higher Education and Disability (AHEAD), that establishes professional and programmatic standards and offers professional development opportunities. Despite the profession's growth, there are no credentials, licensure, or minimum competencies required for practice. AHEAD (2005) does however have a set of program standards and performance indicators that provide a framework for understanding the role of disability service professionals (see Table 2).

Table 2

Program Standards and Performance Indicators Designated by the Association on Higher Education and Disability (AHEAD, 2005)

1. Consultation and Collaboration	1.1. Serve as an advocate for issues regarding students with disabilities to ensure equal access. 1.2. Provide disability representation on relevant campus committees.
2. Information	2.1. Disseminate information through institutional electronic and

Dissemination	<p>printed publications regarding disability services and how to access them.</p> <p>2.2. Provide services that promote access to the campus community.</p> <p>2.3. Disseminate information to students with disabilities regarding available campus and community disability resources.</p>
3. Faculty and Staff Awareness	<p>3.1. Inform faculty regarding academic accommodations, compliance with legal responsibilities, as well as instructional, programmatic, and curriculum modifications.</p> <p>3.2. Provide consultation with administrators regarding academic accommodations, compliance with legal responsibilities, as well as instructional, programmatic, physical, and curriculum modifications.</p> <p>3.3. Provide disability awareness training for campus constituencies such as faculty, staff, and administrators.</p> <p>3.4. Provide information to faculty about services available to students with disabilities.</p>
4. Academic Adjustments	<p>4.1. Maintain records that document the student's plan for the provision of selected accommodations.</p> <p>4.2. Determine with students appropriate academic accommodations and services.</p> <p>4.3. Collaborate with faculty to ensure that reasonable academic accommodations do not fundamentally alter the program of study.</p>
5. Counseling and Self-Determination	<p>5.1. Use a service delivery model that encourages students with disabilities to develop independence.</p>
6. Policies and Procedures	<p>6.1. Develop, review and revise written policies and guidelines regarding procedures for determining and accessing "reasonable accommodations."</p> <p>6.2. Assist with the development, review, and revision of written policies and guidelines for institutional rights and responsibilities with respect to service provision.</p> <p>6.3. Develop, review and revise written policies and guidelines for student rights and responsibilities with respect to receiving services.</p> <p>6.4. Develop, review and revise written policies and guidelines regarding confidentiality of disability information.</p> <p>6.5. Assist with the development, review, and revision of policies and guidelines for settling a formal complaint regarding the determination of a "reasonable accommodation."</p>
7. Program Administration and Evaluation	<p>7.1. Provide services that are aligned with the institution's mission or services philosophy.</p> <p>7.2. Coordinate services for students with disabilities through a full-time professional.</p> <p>7.3. Collect student feedback to measure satisfaction with disability services.</p> <p>7.4. Collect data to monitor use of disability services.</p> <p>7.5. Report program evaluation data to administrators.</p>

	<p>7.6. Provide fiscal management of the office that serves students with disabilities.</p> <p>7.7. Collaborate in establishing procedures for purchasing the adaptive equipment needed to assure equal access.</p>
8. Training and Professional Development	<p>8.1. Provide disability services staff with on-going opportunities for professional development.</p> <p>8.2. Provide services by personnel with training and experience working with college students with disabilities (i.e. student development, degree programs, etc.).</p> <p>8.3. Assure that personnel adhere to relevant Codes of Ethics (i.e. AHEAD).</p>

Although disability service professionals share a common mission of ensuring access to postsecondary education for students with disabilities, they are as diverse as the institutions they serve. These professionals may be found in almost any institutional unit, including student affairs, academic affairs, health services, counseling, human resources, or legal affairs (AHEAD, 2013). Their educational and professional backgrounds vary as well, ranging from higher education administration and risk management to rehabilitation counseling and special education (AHEAD, 2013). Collins and Mowbray (2005) attributed the variance in professional backgrounds as being one reason why a large number of disability service professionals perceived themselves to be inadequately trained to work with students with psychiatric disabilities. Collins and Mowbray (2008) and Sharpe and colleagues (2004) reported similar findings. These scholars have called for disability service professional to improve their knowledge, skills, and attitudes related to supporting students with psychiatric disabilities.

Particular attention has been directed toward the topic of attitudes. Antonak and Livneh (1988) described attitudes as possessing the following traits: (a) attitudes are learned through experience and interaction with other people, social objects, and

environmental events, rather than being innately determined, although the role of heredity or constitutional factors in attitude formation has not been fully investigated; (b) attitudes are complex, multi-component, structures; (c) attitudes are relatively stable (even rigid) as evidenced by their resistance to change; (d) attitudes have a specific social object as a referent (i.e., people, situations, events, ideas, etc.); (e) attitudes vary in their quantity and quality, possessing differing degrees of motivating force (intensity, strength), and direction (toward, against, away from the attitude referent); and (f) attitudes are manifested behaviorally via predisposition to act in a certain way when the individual encounters the attitude referent.

In regards to attitudes toward people with disabilities, Olkin (1999) suggested that that the amount of contact with people with disabilities, the nature of the disability, education, mass media, local social norms, and characteristics of the individual who has the disability are all variables. Hunt and Hunt (2004) noted that negative attitudes towards people with disabilities typically are founded in a lack of knowledge and the perpetuation of incorrect, often negative, stereotypes. These negative attitudes can be the foundation for discrimination, bias, and many other barriers. This statement is particularly true for faculty and staff in postsecondary education. Students with disabilities often identify inappropriate staff and faculty attitudes and behaviors as the biggest barrier to accessing postsecondary education (Hartley, 2010). As early as 1994, research has indicated an increase in positive attitudes towards people with disabilities (Furnham & Thompson, 1994). However, this increase may be due to socially desirable answers instead of actual attitudinal change. Wright (1983) described the theory of social desirability as being when people respond favorably to items expressing what is deemed

socially proper. Therefore, people may be less willing to convey their true feelings of negativity because they know it is less acceptable to publically express prejudices and stereotypes (Folie, 2006). The process of changing an attitude is often a difficult, long-term goal. However, it is not impossible. Disability service professionals should consider changing negative attitudes about students with psychiatric disabilities as being a worthwhile endeavor, especially when considering the consequences of not changing them (Hunt & Hunt, 2004).

Summary

The literature reviewed in this chapter described characteristics of the four main categories of psychiatric disabilities: (a) schizophrenia and related disorders, (b) mood disorders, (c) anxiety disorders, and (d) personality disorders. These psychiatric disabilities, as well as external factors such as stigma, often lead to challenges and barriers for students with psychiatric disabilities in postsecondary education. Although the enrollment rates of these students are high, few persist to degree completion. Services in the form of accommodations and supports are available. Disability service professionals are the designated professionals on campus who provide these services. However, they often are not prepared to support students with psychiatric disabilities.

CHAPTER III

METHODOLOGY

The purpose of this study was to identify knowledge, skills, and attitudes that are important for disability service professionals to possess in order to provide beneficial services to students with psychiatric disabilities in postsecondary education. To address this purpose, the following research questions were used as a guide:

RQ1: What knowledge is important for disability service professionals to possess in order to provide beneficial services to students with psychiatric disabilities in postsecondary education?

RQ2: What skills are important for disability service professionals to possess in order to provide beneficial services to students with psychiatric disabilities in postsecondary education?

RQ3: What attitudes are important for disability service professionals to possess in order to provide beneficial services to students with psychiatric disabilities in postsecondary education?

To conduct this study, a research partnership was formed with the Association on Higher Education and Disability (AHEAD). AHEAD (2013) is the premier association for disability service professionals who are dedicated to promoting full and equal participation of students with disabilities in postsecondary education. Following approval from their research board, AHEAD staff provided technical assistance and access to participants through their national membership database. These participants completed an electronic survey instrument, which was constructed in two phases. The first phase consisted of a three-round Delphi survey with two expert panels: (a)

professionals and (b) students with psychiatric disabilities. The second phase consisted of a pilot group of disability service professionals. This chapter will describe the participants, instrument development process, data collection procedures, and data analysis components.

Participants

Institutional Review Board/Human Subjects Committee approval was obtained prior to beginning this study (see Appendix A). Once approved, a sample was drawn from the AHEAD national membership database of 1,609 disability service professionals. According to AHEAD (2013), their membership is predominantly composed of master's (64.6%) and doctoral (20.2%) level professionals. These professionals' job titles include Director/Manager (46.9%), Specialist (30.2%), ADA/504 Coordinator (24.3%), and Advisor/Counselor (21.7%). AHEAD members are geographically dispersed throughout the United States, with larger numbers living in Ohio (6.1%), New York (6.1%), Pennsylvania (5.2%), California (5.2%), and Texas (4.6%). Based upon previous AHEAD surveys, a conservative response rate of 20-30% was anticipated, which would yield a sample size of between 322 to 483 participants. This sample size is sufficient to conduct a principal components analysis of the data collected. Tabachnick and Fidell (2013) suggested that a principal components analysis should have a sample size of at least 300 participants.

Instrumentation

Instrument Development

Researchers have documented the experiences of students with psychiatric disabilities in postsecondary education (Beamish, 2005; Belch, 2011; Hunt, Eisenberg, & Kilbourne, 2010; Smith-Osborne, 2005). Researchers have also acknowledged the important role disability service professionals play in supporting these students toward reaching their postsecondary education goals (Collins & Mowbray, 2008; Hartley, 2010; McEwan & Downie, 2013; Salzer et al., 2008). However, a thorough review of the literature revealed that no research has been conducted to identify knowledge, skills, and attitudes that are important for disability service professionals to possess in order to provide beneficial services to students with psychiatric disabilities in postsecondary education. Therefore, a new instrument was required to conduct this study. The development of the new instrument occurred in two phases. The first phase was a three-round Delphi survey with two expert panels: (a) disability service professionals and (b) students with psychiatric disabilities. The second phase was a field test of the instrument with six disability service professionals.

Delphi Survey

A Delphi survey is a systematic consensus-building method for gathering and organizing expert opinions about a complex topic (Vazquez-Ramos, Leahy, & Hernandez, 2007). It is considered an appropriate research methodology when one or more of the following conditions exist: (a) subjective opinions on a collective basis are more appropriate for the exploration of the problem than precise analytical techniques;

(b) the individuals needed to contribute to a collective opinion are geographically dispersed and have diverse backgrounds with respect to experience or expertise; (c) individuals cannot meet face-to-face efficiently due to time and expense of travel; and (d) anonymity and assurance that no individual opinion is allowed to dominate due to the strength of an individual or personality is desired and to assure the input and consideration of the opinions of all contributors' ideas (Linstone & Turoff, 1975). Because all of these conditions existed in the current study, a Delphi survey was considered to be an appropriate step in the instrument development process. A summary of the Delphi survey process is listed in Table 3.

Panel selection and participants. The Delphi survey used two expert panels. The first panel consisted of full-time disability service professionals who were considered to have expertise in providing services to students with psychiatric disabilities. The following inclusion criteria were required for each participant: (a) member of the Association of Higher Education and Disability (AHEAD) Psychiatric Disabilities Special Interest Group; (b) minimum of 5 years of direct experience providing services to students with psychiatric disabilities; (c) minimum of a master's degree in counseling, psychology, rehabilitation, special education, disability studies, or other closely related fields; (d) employment in a two-year college or four-year university disability service office in the United States; and (e) job responsibilities that include specific duties related to students with psychiatric disabilities. The second panel consisted of students with psychiatric disabilities. The following inclusion criteria were required for each participant: (a) member of a National Alliance for Mental Illness (NAMI) Student

Chapter; (b) enrollment in a 2 year college or 4 year university; and (c) receiving psychiatric disability-related services from a disability service professional.

Table 3

Summary Table of the Steps, Phases, and Activities Involved in the Execution of a Three-round Delphi Survey (Vazquez-Ramos, Leahy, & Hernandez, 2007)

Steps	Phases	Activities
1	Selection	<ul style="list-style-type: none"> a. Identification of potential experts b. Invitation to participate c. Recruitment of panelists d. Constitution of the panel of experts
2	Exploration (Round 1)	<ul style="list-style-type: none"> a. Distribution of Delphi Round 1 (survey with open-ended questions) b. Follow-up of Delphi Round 1 c. Collect Delphi Round 1 d. Collation and categorization of results (content analysis) e. Construction of Delphi Round 2 (first generation of potential items)
3	Evaluation (Round 2)	<ul style="list-style-type: none"> a. Distribution of Delphi Round 2 b. Follow-up of Delphi Round 2 c. Collect Delphi Round 2 d. Collation and categorization of results (provided in terms of central tendency and measures of dispersion of participants' responses). e. Construction of Delphi Round 3
4	Reevaluation (Round 3)	<ul style="list-style-type: none"> a. Distribution of Delphi Round 3 (participants are provided with summary statistics from the previous round and are encouraged to reevaluate their answers based on their individual and group responses). b. Follow-up of Delphi Round 3 c. Collect Delphi Round 3 d. Re-collation and categorization of results (provided in terms of central tendency and measures of dispersion of participants' responses.) e. Calculation of summary statistics
5	Final Consensus	<ul style="list-style-type: none"> a. Identification of items of which consensus was obtained.

Randomization was not used because the purposeful selection of participants is an important element of the Delphi methodology. In other words, the validity of the survey is directly related to the process of selecting participants (Clayton, 1997). Further, no exact criteria exist for Delphi survey sample selection. In general, participants should have related experience on the topic, specific knowledge on the topic, the ability to contribute meaningfully, and be willing to revise initial statements to reach consensus (Hsu & Sandford, 2007). Members of the target groups who met the inclusion criteria were recruited through the following two organizations: Association on Higher Education and Disability (AHEAD) - Psychiatric Special Interest Group and the National Alliance for Mental Illness (NAMI) - Student Chapters. Potential participants were contacted via email and asked for their willingness and agreement to participate. No compensation or incentives were offered for participation. Recommendations for the size of Delphi panels vary from 10 to 300 participants. With a homogeneous population, a sample size of 15 to 30 participants is considered to be acceptable (Tabachnick & Fidell, 2013). A total of 16 professionals and 21 students participated in Round 1. Round 2 sample size was 16 professionals and 15 students. Finally, Round 3 sample size was 16 professionals and 14 students. The professional panel had no attrition. The student panel attrition rate was 33.3%. An attrition rate of up to 40% is to be expected because Delphi surveys use multiple iterations (Hsu & Sandford, 2007).

Overview of the Delphi survey process. The participants responded to a series of three sequential electronic surveys (also called rounds). They had 10 days to complete each round using survey software called Qualtrics Suite (Qualtrics, 2013). This survey software allowed for prompt responses to questions and the ability to analyze data in real

time. The average duration of time spent by participants completing each round was 31 minutes. The first round contained a letter of information that described the purpose, procedures, instructions, risks, benefits, confidentiality, and an Institutional Review Board approval statement. When participants clicked a “Start” link to begin the survey, consent to participate was implied. Next, participants completed a series of demographic and professional experience questions related to the each panel’s inclusion criteria (i.e., years of professional experience, highest obtained professional degree, field of professional degree, employment setting, etc.). The remainder of the first round contained three open-ended questions that asked participants to identify knowledge, skills, and attitudes they perceived to be important for disability service professionals to possess in order to provide beneficial services to students with psychiatric disabilities in postsecondary education. These questions are listed below:

1. What **knowledge** do you perceive to be essential for disability service professionals to possess in order to provide beneficial services to students with psychiatric disabilities in postsecondary education? Examples include, but are not limited to (a) understanding side effects of psychiatric medication and (b) interpreting psychiatric diagnostic documentation.
2. What **skills** do you perceive to be essential for disability service professionals to possess in order to provide beneficial services to students with psychiatric disabilities in postsecondary education? Examples include, but are not limited to (a) conducting a psychiatric functional limitations assessment and (b) fostering campus awareness regarding access issues for students with psychiatric disabilities.

3. What **attitudes** do you perceive to be essential for disability service professionals to possess in order to provide beneficial services to students with psychiatric disabilities in postsecondary education? Examples include, but are not limited to (a) awareness that not all students with psychiatric disabilities pose a danger to society and (b) belief that students with psychiatric disabilities are capable of succeeding academically.

Each panel (professionals and students) answered the same three open-ended questions, although their responses were analyzed separately to explore potential differences between panels. This process yielded a list of 139 statements ($n = 54$ professional panel, $n = 85$ student panel) from the Delphi survey participants reflecting their initial descriptions of important knowledge, skills, and attitudes. Due to the qualitative nature of the data derived from this round, a content analysis was conducted. The purpose of this content analysis was to identify themes and patterns through the facilitation of open coding of data (ad hoc free coding as the data is analyzed) and the sorting of coded data. A commonly used five-step process as described by Waltz, Strickland, and Lenz (2010) was used to guide the content analysis. First, the universe of content to be examined was defined. In the current study, the universe of content to be examined consisted of the totality of the written words provided by the participants after responding to the round one survey. Second, the characteristics or concepts to be measured were identified. In the current study, the concepts to be measured were any that related to knowledge, skills, and attitudes that disability service professionals must possess in order to provide beneficial services to students with disabilities in postsecondary education. Third, the unit of analysis to be employed was selected. In the

current study, the unit of analysis employed was words, phrases, and sentences that pertained to knowledge, skills, and attitudes that disability service professionals must possess in order to provide beneficial services to students with disabilities in postsecondary education. Fourth, a sampling plan was developed. In the current study, all responses from panelists were included in the sample for data analysis. Lastly, a scheme for categorizing the content and explicit coding and scoring instructions was developed. In the current study, words and phrases from round one were coded using the software program Atlas-ti 6.2 (Muhr, 2011). First pass coding was accomplished by assigning codes as close as possible to the actual words of the participants. Codes were then analyzed to construct statements reflecting the actual words of the participants. Relevance, completeness, and clarity of coding were evaluated to increase interpretive reliability. The number of distinct items was tabulated, which totaled to 61 knowledge, skill, and attitudinal items. These items were used to construct the second round survey.

In the second round, participants were asked to rate each of the 61 knowledge, skill, and attitudinal item on a Likert scale of perceived importance with six rating points (0 = lowest, 5 = highest). Each panel (professionals and students) rated the same set of items, although their responses were analyzed separately to explore potential differences between groups. The benefits of this round were that areas of agreement and disagreement were isolated, further identification of items needing clarification was accomplished, and a preliminary idea of priorities emerged (Delbecq, Van de Ven, & Gustafson, 1975; Hsu & Sandford, 2007). Once responses were obtained, means and standard deviations were calculated for each item.

In the third and final round, participants were asked to re-rate the 61 items. However, for this round, they were provided means and standard deviations from round two. Definitions of means and standard deviations and suggestions for how to interpret these statistics were provided. The descriptive statistics from round two and round three were compared. Consensus was determined based upon (a) stability - less than a .50 difference in the Round 2 and 3 means and (b) variation - standard deviation greater than .80 in at least one of the two expert panels (Buck, Gross, Hakim, & Weinblatt, 1993). Items that did not meet consensus or items with a mean below 3.0 were removed from the instrument (Buck et al., 1993; Hsu & Sandford, 2007). Seven items were removed, resulting in 54 knowledge, skill, and attitudinal items that met consensus. The means, standard deviations, and stability scores for each item are provided in Appendix B.

Field Test

The Delphi survey resulted in a draft instrument with 54 items that was field tested with a group ($N = 6$) of disability service professionals who were independent of the Delphi survey. The field test group had diverse demographic and professional characteristics. Their job titles included Director/Manager ($N = 3$), Counselor/Advisory ($N = 2$), and ADA/504 Coordinator ($N = 1$). The field test group had a mean of 12.7 years experience in disability services. They were asked to complete the instrument and evaluate it for instruction clarity, item clarity, and length of time to complete the instrument (Ary, Jacobs, & Razavieh, 1996). Based upon their feedback, instruction clarity was improved.

Description of Final Instrument

The final instrument was an electronic survey that consisted of four sections (see Appendix C). The first section included a letter of information that encouraged participation, described the survey with step-by-step instructions, and presented Institutional Review Board information. When participants clicked a “Start” link to begin the survey, consent to participate was implied. Once the survey was started, participants were directed to a series of demographic questions (years of professional experience, highest obtained professional degree, field of professional degree, employment setting, and geographic region). The second section of the instrument asked participants to rate 18 knowledge items on a scale of importance (0 = lowest, 5 = highest). The third section of the instrument asked participants to rate 28 skill items on a scale of importance (0 = lowest, 5 = highest). Finally, the fourth section of the instrument asked participants to rate eight attitudinal items on a scale of importance (0 = lowest, 5 = highest). In total, the instrument contained 54 knowledge, skill, and attitudinal items. Content validity was addressed through the development methodology used in the construction of this instrument (Hsu & Sandford, 2007). Specifically, the use of the Delphi survey for the purpose of item development, consensus building, and expert content review provided assurance that the major knowledge, skill, and attitudinal items essential for the effective provision of services to students with psychiatric disabilities were identified (Hsu & Sandford, 2007).

Procedures

This study used an exploratory design with a 54-item self-report survey. Self-

report surveys are commonly used to obtain information that cannot be readily and cost effectively obtained from other sources (Babbie, 1997). Further, many of the items (i.e. attitudes) that were included in this survey cannot be easily observed or empirically measured by others. The participants were therefore in the best position to evaluate their perceived importance of the items. Importantly, the use of a self-report survey for this study is based upon the assumption that disability service professionals were able and willing to respond honestly and accurately to this survey.

Data Collection

Subsequent to obtaining support from the Association on Higher Education and Disability (AHEAD), their Executive Director sent a request for participation email to 1,609 disability service professionals. This email included a statement from AHEAD that described the importance of this study because of its alignment with the mission and goals of the organization. The request for participation email also included a letter of information, survey instructions, and a link to the electronic survey instrument. The survey collection duration was 14 days, with one reminder email prompt sent 1 week after the initial email and another reminder email prompt sent one day prior to the survey's closing date. Survey software called Qualtrics Research Suite (2013) was the selected platform for the survey because of its advanced functionality, simplicity of survey interface, and ease of use. Qualtrics ensured that only one unique response came from a specific IP (Internet Protocol) address. This helped to avoid duplicate responses from the same participant. No compensation or incentive was offered to participants.

Data Analysis

The primary data analysis tool used in this study was a principal components analysis (PCA) to reduce the large number of items into specific domains by summarizing the linear patterns of intercorrelations among the items (Tabachnick & Fidell, 2013). PCA was determined to be the best data analysis method for this study because it explains the most variance by taking into consideration not only the variable that is unique to an item, but error variance as well (Pedhazur & Schmelkin, 1991; Tabachnick & Fidell, 2013). In order to determine the number of components to be retained, the following processes were followed: (a) Kaiser-Guttman rule of eigenvalues greater than 1.0, (b) Cattell's scree test, and (c) interpretability of factors (Abdi, 2003). Factor solutions were then rotated using an orthogonal varimax rotation. This method minimizes the number of variables that have high loadings on each factor and therefore further simplifies the interpretation of the factors (Abdi, 2003; Tabachnick & Fidell, 2013). A descriptive analysis was also undertaken to determine the mean and standard deviation for each of the survey items on all parts of the instrument in order to describe the identified knowledge, skills, and attitudes the participants perceived to be important. These descriptions were used to compare responses across all demographic and professional characteristic variables. Frequencies and percentages of responses to the demographic section were also compiled. Lastly, Cronbach's alpha coefficients were computed to measure the degree of internal consistency for each survey item.

CHAPTER IV

RESULTS

The purpose of this study was to identify knowledge, skills, and attitudes that are important for disability service professionals to possess in order to provide beneficial services to students with psychiatric disabilities in postsecondary education. Achieving this purpose began with a two-phase instrument development process. The first phase was a Delphi survey that spanned three rounds with two expert panels. A total of 54 knowledge, skill, and attitudinal items emerged from the Delphi survey. The second phase of the instrument development process was a pilot group with six disability service professionals. A final instrument was then distributed as an electronic survey to 1,609 members of the Association on Higher Education and Disability (AHEAD). The results from the AHEAD survey are presented in this chapter.

Characteristics of the Sample

Of the 1,609 AHEAD members who received the survey, 402 (24.98%) usable responses were received. The participants had a mean of 11.6 years experience in the field of postsecondary education disability services. Additional sample characteristics are provided in Table 4 and described below. In regards to the participants' job title, the sample consisted of 198 Directors/Managers (49%), 140 Disability Specialists (35%), 32 ADA/504 Coordinators (8%), 20 Advisors/Academic Coordinators (5%), and 12 participants with job titles that fell into the "Other" category (3%). Examples of "Other" category responses included Dean, Associate Director, and Assistant Director. In regards to the participants' employment setting, the sample consisted of 273 participants (68%)

who were employed at 4-year universities, 93 participants (23%) were employed at 2-year colleges, 20 participants (5%) were employed at vocational/technical colleges, and 16 participants (4%) indicated that their place of employment fell into the “Other” category. Examples of “Other” category responses included online adult schools and graduate-only schools.

In regards to the participants’ level of professional degree obtained, 289 participants (72%) had a master’s degree, 68 participants (17%) had a doctoral degree, 36 participants (9%) had a bachelor’s degree, and nine participants (2%) indicated that their degree fell into the “Other” category. The “Other” category responses were all educational specialist degrees. In regards to the participants’ professional degree area of study, 113 participants (28%) indicated that their area of study fell into the “Other” category. Examples of “Other” category responses ranged from Business and Computer Science to History and Sociology. In addition to the “Other” category, 69 participants (17%) indicated rehabilitation counseling as their field of study, 60 participants (15%) indicated counseling as their field of study, 48 participants (12%) indicated psychology as their field of study, 40 participants (10%) indicated higher education administration as their field of study, 32 participants (8%) indicated special education as their field of study, 32 participants (8%) indicated social work as their field of study, and 8 participants (2%) indicated disability studies as their field of study.

In regards to the participants’ geographic region, 95 participants (24%) resided in Region 3 - East North Center, which includes Wisconsin, Michigan, Illinois, Indiana, and Ohio. Region 2 - Mid-Atlantic, which includes New York, Pennsylvania, and New Jersey, had 69 participants (17%). Region 5 - South Atlantic, which includes Delaware,

Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, and Florida, had 48 participants (12%). Region 7 - West South Central, which includes Oklahoma, Texas, Arkansas, and Louisiana, had 45 participants (11%). Region 9 - Pacific, which includes Alaska, Washington, Oregon, California, Hawaii, also had 45 participants (11%). Region 8 - Mountain, which includes Idaho, Montana, Wyoming, Nevada, Utah, Colorado, Arizona, and New Mexico, had 32 participants (8%). Region 4 - West North Central, which includes Missouri, North Dakota, South Dakota, Nebraska, Kansas, Minnesota, and Iowa, had 28 participants (7%). Region 1 - New England, which includes Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, and Connecticut, also had 28 participants (7%). Lastly, Region 6 - East South Central, which includes Kentucky, Tennessee, Mississippi, and Alabama, had 12 participants (3%).

Principal Components Analysis

A principal components analysis was used to analyze the knowledge, skill, and attitudinal items and group them into empirically defined categories. A principal components analysis was determined to be feasible because Bartlett's test of sphericity was significant ($p = 0.000$) and the Kaiser-Meyer-Olkin (KMO) measure was high (.874). Further, the sample size of 402 participants met the minimum of at least 300 participants recommended to conduct a principal components analysis (Tabachnick & Fidell, 2013). The next step in the principal components analysis was a review of the correlations between original variables in the correlation matrix. Variables with correlations that were too high (above .9) and too low (below .1) were removed. High correlations indicate that two variables are measuring the same item. Low correlations indicate that a

Table 4

Demographic and Professional Characteristics of the Sample

Variable	N	%
JOB TITLE		
Director/Manager	198	49%
Disability Specialist	140	35%
ADA/504 Coordinator	32	8%
Advisor or Academic Counselor	20	5%
Other	12	3%
EMPLOYMENT SETTING		
Four-Year University	273	68%
Two-Year College	93	23%
Vocational/Technical College	20	5%
Other	16	4%
HIGHEST OBTAINED PROFESSIONAL DEGREE		
Master's Degree (M.A., M.S., MSW, M.Ed., etc.)	289	72%
Doctoral Degree (Ph.D., Ed.D., J.D., etc.)	68	17%
Bachelor's Degree (B.A., B.S., etc.)	36	9%
Other	9	2%
Associate's Degree (A.A., A.A.S., etc.)	0	0%
PROFESSIONAL DEGREE AREA OF STUDY		
Other	113	28%
Rehabilitation Counseling	69	17%
Counseling	60	15%
Psychology	48	12%
Higher Education Administration	40	10%
Special Education	32	8%
Social Work	32	8%
Disability Studies	8	2%
GEOGRAPHIC REGION		
Region 3 - East North Central	95	24%
Region 2 - Mid-Atlantic	69	17%
Region 5 - South Atlantic	48	12%
Region 7 - West South Central	45	11%
Region 9 - Pacific	45	11%
Region 8 - Mountain	32	8%
Region 4 - West North Central	28	7%
Region 1 - New England	28	7%
Region 6 - East South Central	12	3%

variable might make its own component by only loading onto one principal component (Tabachnick & Fidell, 2013). Further, four additional items were removed from the principal components analysis because they did not meet an a priori criterion level (≥ 3.00) of importance (Tabachnick & Fidell, 2013). These four items were: (a) ability of disability service professionals to assist students develop natural supports ($M = 2.87$, $SD = 1.33$), (b) ability of disability service professionals to assist students prepare for employment ($M = 2.86$, $SD = 1.24$), (c) ability of disability service professionals implement supported education strategies ($M = 2.83$, $SD = 1.39$), and (d) ability of disability service professionals to assist students transition into independent living settings ($M = 2.06$, $SD = 1.31$).

In order to determine the number of factors to retain, the Kaiser-Guttman rule of eigenvalues greater than one was utilized (Tinsley & Tinsley, 1987). Twelve factors were indicated. Because the Kaiser-Guttman rule tends to yield too many factors when there are a large number of variables, the Cattell's scree test was then used as an alternative to determine the number of factors to be retained (Tabachnick & Fidell, 2013; Tinsley & Tinsley, 1987). The scree plot is included as Figure 1. Cattell's scree test indicated a five-factor solution. The five-factor solution with a varimax rotation proved to be optimal for this study. The use of the varimax rotation procedure made the solution more interpretable by maximizing the variances of the factors without changing the underlying mathematical properties of the solution (Tabachnick & Fidell, 2013). The resulting five-factor solution was parsimonious, interpretable, and accounted for 60.5% of the variance.

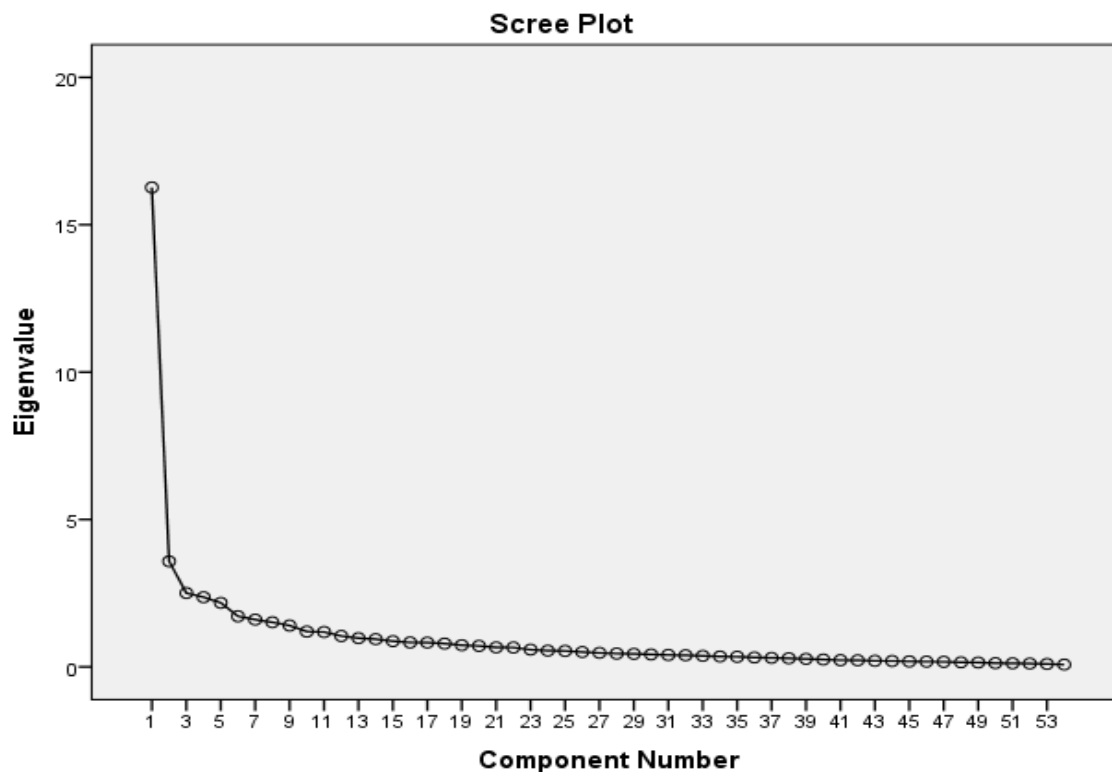


Figure 1. Scree plot used to determine the number of factors to retain.

In order to assign items to factors (factor membership), the highest loading for each item was used (Tabachnick & Fidell, 2013). Item loadings are available in Appendix D. Labels were created to clearly describe the contents of each factor. Factor labels, items, and descriptive statistics are provided in Table 5. The first factor ($M = 4.57$, $SD = 0.69$) was labeled Ethical and Legal Considerations. It contained 13 items that pertained to following the law and honoring ethical obligations, fighting stereotypes, and ensuring a positive professional demeanor. The second factor ($M = 3.85$, $SD = 1.07$) was labeled Accommodations and Supports. It contained 12 items, which related to ensuring access through reasonable accommodations, universal design for learning, and teaching skills and strategies for college success. The third factor ($M = 3.83$, $SD = 1.02$)

was labeled Disability Aspects and contained 11 items that pertained to the unique aspects of psychiatric disabilities, such as functional limitations, the recovery process, and medication side effects. The fourth factor ($M = 4.11$, $SD = 0.93$) was labeled Community Resources and contained seven items that revolved around off-campus information and supports such as collaborating with mental health professionals, as well as employment and independent living considerations. Lastly, the fifth factor ($M = 3.94$, $SD = 1.04$) was labeled Campus Considerations and contained seven items that pertained to working with faculty and staff, evaluating institutional/campus needs, and implementing supported education programs.

Table 5

Each Factor with Group and Item Means and Standard Deviations

Factors (K = Knowledge, S = Skill, A = Attitude)	Mean	SD
Factor One - Ethical and Legal Considerations	4.57	0.69
1. Possession of an understanding that not all students with psychiatric disabilities pose a danger to the campus community (A)	4.86	0.42
2. Rejection of stereotypes/stigma toward students with psychiatric disabilities (A)	4.82	0.47
3. Ability to follow the legal obligations related to providing services to students with psychiatric disabilities (S)	4.77	0.53
4. Desire to see students with psychiatric disabilities succeed in college (A)	4.76	0.58
5. Possession of a friendly attitude toward students with psychiatric disabilities (A)	4.70	0.57
6. Knowledge of legal obligations related to providing services to students with psychiatric disabilities (K)	4.69	0.75
7. Ability to follow the ethical obligations related to providing services to students with psychiatric disabilities (S)	4.69	0.77
8. Knowledge of ethical obligations related to providing services to students with psychiatric disabilities (K)	4.67	0.72
9. Possession of empathy toward students with psychiatric disabilities (A)	4.64	0.66

10. Knowledge of disability disclosure hesitations/difficulties related to psychiatric disabilities (K)	4.25	0.86
11. Knowledge of stereotypes/stigma related to psychiatric disabilities (K)	4.21	0.79
12. Ability to assist students in determining when to disclose their psychiatric disability to faculty, staff, peers, and others (S)	4.20	0.96
13. Ability to address stereotypes/stigma related to psychiatric disabilities (S)	4.17	0.90
Factor Two - Accommodations and Supports	3.85	1.07
1. Ability to design reasonable accommodations for students with psychiatric disabilities (S)	4.79	0.61
2. Knowledge of reasonable accommodations for students with psychiatric disabilities (K)	4.76	0.61
3. Ability to advocate for students with psychiatric disabilities (S)	4.60	0.70
4. Ability to teach self-advocacy skills to students with psychiatric disabilities (S)	4.10	1.07
5. Ability to teach self-determination skills to students with psychiatric disabilities (S)	3.74	1.32
6. Knowledge of universal design for learning strategies related to students with psychiatric disabilities (K)	3.69	1.10
7. Knowledge of natural supports for students with psychiatric disabilities (K)	3.65	1.13
8. Knowledge of evidence-based practices related to psychiatric disabilities (K)	3.59	1.08
9. Ability to assist students with psychiatric disabilities transition into college (S)	3.54	1.27
10. Ability to teach academic success skills to students with psychiatric disabilities (S)	3.37	1.27
11. Ability to provide outreach to students with psychiatric disabilities (S)	3.26	1.34
12. Ability to teach social skills to students with psychiatric disabilities (S)	3.07	1.32
Factor Three - Disability Aspects	3.83	1.02
1. Desire to accommodate the cyclical nature of psychiatric disabilities (A)	4.39	0.88
2. Knowledge of how to interpret psychiatric and medical documentation (K)	4.29	0.83
3. Knowledge of specific psychiatric disabilities and their characteristics (K)	4.20	0.83
4. Ability to assess functional limitations of students with psychiatric disabilities (S)	4.19	1.02
5. Ability to assess strengths of students with psychiatric disabilities (S)	4.10	0.93

6. Ability to assess goals and interests of students with psychiatric disabilities (S)	3.83	0.98
7. Knowledge of diagnostic criteria (i.e. Diagnostic and Statistical Manual - DSM) (K)	3.60	1.11
8. Knowledge of psychiatric recovery and rehabilitation processes (K)	3.56	1.00
9. Knowledge of psychiatric medication types and side effects (K)	3.40	1.13
10. Knowledge of the predictors of college success for students with psychiatric disabilities (K)	3.38	1.17
11. Ability to apply diagnostic criteria (i.e. Diagnostic and Statistical Manual - DSM) to the college setting (S)	3.20	1.35
Factor Four - Community Resources	4.11	0.93
1. Ability to appropriately refer students to other professionals who provide services to students with psychiatric disabilities (S)	4.75	0.53
2. Ability to access information and resources about psychiatric disabilities (S)	4.34	0.81
3. Ability to collaborate with professionals regarding students with psychiatric disabilities (S)	4.22	0.91
4. Desire to pursue continuing education opportunities related to psychiatric disabilities (A)	4.19	1.00
5. Desire to collaborate with community partners to assist students with psychiatric disabilities (A)	4.12	1.02
6. Knowledge of community mental health resources (K)	3.88	1.03
7. Ability to collaborate with families in regards to their family members with psychiatric disabilities (S)	3.26	1.19
Factor Five - Campus Considerations	3.94	1.04
1. Knowledge of on-campus mental health resources (K)	4.79	0.63
2. Ability to consult with faculty regarding students with psychiatric disabilities (S)	4.34	0.88
3. Knowledge of campus safety concerns related to psychiatric disabilities (K)	4.15	0.87
4. Ability to conduct faculty and staff trainings related to psychiatric disabilities (S)	3.84	1.18
5. Ability to advocate for institutional change to improve access for students with psychiatric disabilities (S)	3.82	1.18
6. Ability to conduct campus needs assessments related to improving the success of students with psychiatric disabilities (S)	3.44	1.25
7. Knowledge of supported education (K)	3.23	1.30

As shown in Table 5, there was a widespread of knowledge, skills, and attitudes across each factor. The first factor contained four knowledge items (31%), four skill items (31%), and five attitudinal items (38%). The second factor contained four knowledge items (33%) and eight skill items (67%). The third factor contained six knowledge items (55%), four skill items (36%), and one attitudinal item (9%). The fourth factor contained one knowledge item (14%), four skill items (57%), and two attitudinal items (29%). Lastly, the fifth factor contained three knowledge items (43%) and four skill items (57%). In order to estimate the internal consistency of each factor, reliability coefficients were computed. Cronbach alphas ranged from .80 to .95, which indicated a moderate to high internal consistency of the items in each factor.

Post-Hoc Analyses

Two post-hoc analyses were conducted in this study. First, in order to determine whether perceptions of importance of knowledge, skills, and attitudinal items differed according to demographic and professional characteristics, a multivariate analysis of variance (MANOVA) was conducted. The dependent variables were the mean scores of the five factors. The independent variables were the demographic and professional characteristics: (a) job title, (b) employment setting, (c) highest obtained professional degree, (d) professional degree area of study, and (e) geographic region. A significant multivariate F (Wilks Lamda = $F .90, p = < .05$) was found for the employment setting variable. An independent-samples *t* test comparison revealed that participants who were employed at 2-year colleges perceived the community factor as significantly more important than participants employed in other postsecondary education settings.

The second post-hoc analysis utilized four items that were originally removed from the principal components analysis because they did not meet an a priori criterion level (≥ 3.00) of importance. Although disability service professionals rated these items low in the AHEAD survey, students with psychiatric disabilities rated them high in the Delphi survey. The first item was the ability to assist students with psychiatric disabilities develop natural supports. Disability service professionals rated this item with a mean score of 2.87 and a standard deviation of 1.33. In contrast, students with psychiatric disabilities rated this item with a mean score of 4.00 and a standard deviation of 0.75. The second item was the ability to assist students with psychiatric disabilities prepare for employment. Disability service professionals rated this item with a mean score of 2.86 and a standard deviation of 1.24. In contrast, students with psychiatric disabilities rated this item with a mean score of 3.86 and a standard deviation of 0.77. The third item was the ability to assist students with psychiatric disabilities transition into independent living settings. Disability service professionals rated this item with a mean score of 2.06 and a standard deviation of 1.31. In contrast, students with psychiatric disabilities rated this item with a mean score of 3.13 and a standard deviation of 0.82. Lastly, the fourth item was the ability to implement supported education strategies for students with psychiatric disabilities. Disability service professionals rated this item with a mean score of 2.83 and a standard deviation of 1.39. In contrast, students with psychiatric disabilities rated this item with a mean score of 3.45 and a standard deviation of 0.99. The rating differences between disability service professionals and students with psychiatric disabilities are explored in Chapter V.

CHAPTER V

DISCUSSION

This study took a meaningful step forward by identifying knowledge, skills, and attitudes considered important for disability service professionals to possess in order to provide beneficial services to students with psychiatric disabilities in postsecondary education. This chapter provides a summary of the results, as well as a discussion of the implications. Limitations and recommendations for future research are also discussed.

Knowledge, Skills, and Attitudes

This study began with a three-round Delphi survey where two panels of experts gained consensus on 54 knowledge, skill, and attitudinal items. Following a pilot test, these items were used in a final survey instrument that was completed by 402 disability service professionals from the Association on Higher Education and Disability (AHEAD). The sample closely reflected the demographic and professional characteristics of the broader population of AHEAD members (AHEAD, 2013). Participants rated each item on a basis of perceived importance. A principal components analysis of the survey results organized the items into five interpretable factors: (a) ethical and legal considerations, (b) accommodations and supports, (c) disability aspects, (d) community resources, and (e) campus considerations.

Factor One - Ethical and Legal Considerations

The Ethical and Legal Considerations factor contained 13 items, which received particularly high ratings ($M = 4.57$, $SD = 0.69$). These high ratings were not unexpected.

Since 1996, AHEAD has led a series of professional development campaigns and in-service training opportunities related to ethical and legal topics. Further, the profession of disability services in postsecondary education is guided by legislation such as Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990. Lastly, AHEAD (1996) published a Code of Ethics that represented the principles and values disability service professionals should use to govern their activities and decisions. This widely disseminated Code of Ethics (1996) stated, “disability service professionals are committed to facilitating the highest levels of educational excellence and potential quality of life for postsecondary students with disabilities and strive to achieve and maintain the highest levels of competence and integrity in all areas of assistance to adult students with disabilities” (p. 1).

In an effort to address ethical and legal considerations, Kiuahara and Huefner (2008) suggested that disability service professionals begin by rejecting stigma (stereotypes, myths, and fears) about students with psychiatric disabilities. This is particularly important considering that stigma can be as debilitating as the diagnosis on a psychiatric disability (Belch, 2011). When members of the campus community, including disability service professionals, view students with psychiatric disabilities without stigma, these students will face less opposition when it comes to receiving fair and comprehensive services (Kiuahara & Huefner, 2008). In addition to the rejection of stigma, other ethical and legal considerations were identified in this study. Examples include: (a) possession of an understanding that not all students with psychiatric disabilities pose a danger to the campus community, (b) desire to see students with psychiatric disabilities succeed in college, (c) possession of a friendly attitude toward

students with psychiatric disabilities, and (d) possession of empathy toward students with psychiatric disabilities.

Factor Two - Accommodations and Supports

The Accommodations and Supports factor contained 12 items ($M = 3.85$, $SD = 1.07$). Common accommodations for students with psychiatric disabilities include reduced course load, extended time on exams, administration of exams in distraction-reduced environments, utilization of note takers, rescheduling of exams, and possible relaxation of attendance requirements due to the cyclical nature of psychiatric disabilities or the side effects of medication. The ability to design reasonable accommodations was the highest rated item in this factor ($M = 4.79$, $SD = 0.61$). Underscoring the difficulty of designing reasonable accommodations, Unger (1991) found that disability service professionals often lack the expertise to identify functional limitations of students with psychiatric disabilities and translate these limitations into reasonable accommodations. In a related study by Megivern and colleagues (2003), students with psychiatric disabilities perceived disability service professionals as lacking competence to identify reasonable accommodations. Megivern and colleagues noted that this perception by students was a barrier for them to access disability services. When disability service professionals are competent, the provision of reasonable accommodations is an important factor in predicting the success of students with psychiatric disabilities in postsecondary education (Kiuahara & Huefner, 2008).

In addition to accommodations, the present study also identified knowledge, skills, and attitudes that pertained to the provision of supports. For example, the ability of disability service professionals to provide outreach to students with psychiatric

disabilities was perceived to be important ($M = 3.26$, $SD = 1.34$). McEwan and Downie (2013) found that many students with psychiatric disabilities were not well served by the self-advocacy model of disability services in postsecondary education, which requires students to independently seek out services and disclose their disability. They suggested that disability service professionals develop an “aggressive outreach program targeting current and prospective students, ensuring students are aware of their right to the service” (p. 242).

The provision of outreach does not alleviate the need for students to learn self-advocacy skills. In fact, the ability of disability service professionals to teach self-advocacy skills was perceived to be important in this study ($M = 4.10$, $SD = 1.07$). Students with learning disabilities, for example, typically arrive in postsecondary education with an extensive history of support for their disabilities. Teaching the skills of self-advocacy, including the awareness of rights to accommodations, understanding one’s learning style, and how to effectively request appropriate supports, is standard training for students with learning disabilities preparing for postsecondary education (Alberta, 2002). McEwan and Downie (2013) noted that because the majority of students with psychiatric disabilities do not have their disabilities diagnosed until after they leave secondary school, they have limited opportunities to develop self-advocacy skills. There are no professionals in postsecondary education who are designated to teach self-advocacy skills to students with psychiatric disabilities, which presents an opportunity for disability service professionals to fill an important void.

Factor Three - Disability Aspects

The Disability Aspects factor contained 11 items ($M = 3.83$, $SD = 1.02$). As

Unger (1991) noted, the unique aspects of psychiatric disabilities cause many disability service professionals to “throw up their hands in despair because the students take so much of the professional’s time” (p. 279). Collins and Mowbray (2005) suggested that disability service professionals possess specific pre-service or in-service training regarding aspects of psychiatric disabilities, with topics such as medication side effects, recovery and rehabilitation process, and how to interpret psychiatric and medical documentation. These items were identified as being important in this study.

The highest rated item in the Disability Aspects factor was the desire to accommodate the cyclical nature of psychiatric disabilities ($M = 4.39$, $SD = 0.88$). An example of the cyclical nature of psychiatric disabilities is when a student who may have been requiring very little support during previous semesters suddenly needs increased support. Another highly rated item was the ability to assess functional limitations of students with psychiatric disabilities ($M = 4.19$, $SD = 1.02$). According to Mancuso (1990), functional limitations for students with psychiatric disabilities include: (a) screening out environmental stimuli - an inability to block out sounds, sights, or odors which interfere with focusing on tasks; (b) sustaining concentration - restlessness, shortened attention span, easily distracted, trouble remembering verbal directions; (c) maintaining stamina - having energy to attend long classes, combating drowsiness due to medications; (d) handling time pressures and multiple tasks - managing assignments and meeting deadlines, prioritizing tasks; (e) interacting with others - getting along, fitting in, talking with peers, reading social cues; (f) responding to negative feedback - understanding and interpreting criticism, knowing what to do to improve, initiating changes because of low self esteem; and (g) responding to change - coping with

unexpected changes in coursework, such as changes in assignments. Sharpe and colleagues (2004) recommended that disability service professionals be comfortable with identifying functional limitations of students with psychiatric disabilities, particularly within the context of related factors like substance abuse and social isolation.

Factor Four - Community Resources

The Community Resources factor contained 7 items ($M = 4.11$, $SD = 0.93$). These items related to collaborating with family members and professionals, as well as accessing information and continuing education about psychiatric disabilities. Kiuvara and Huefner (2008) acknowledged the importance of partnerships between community members and disability service professionals. These partnerships are particularly important considering that disability service professionals often have large caseloads and may not be able to provide assistance beyond the basic facilitation of academic supports for students with disabilities (Collins & Mowbray, 2005; Sharpe et al., 2004). Further, collaborating with community members may lead to the development, implementation, and maintenance of innovative strategies for addressing the needs of students with psychiatric disabilities.

The collaboration between disability service professionals and family members is often viewed as being counter-productive to the development of student independence and autonomy in postsecondary education (Doren, Gau, & Lindstrom, 2012). However, McEwan and Downie (2013) found that collaboration between disability service professionals and family members was particularly important for the success of students with psychiatric disabilities in postsecondary education. Family members may provide emotional, social, advocacy, and financial support, as well as observe early signs of

relapse to help prevent withdrawal. Dixon and colleagues (2001) offered suggestions for working with families. Examples include (a) encouraging family members to expand their social support networks (i.e. National Alliance for Mental Illness) and (b) listening to families' concerns and involving them as equal partners in the planning and delivery of accommodations and supports.

The Community Resources factor yielded a significant finding in the post-hoc analysis. This analysis revealed that participants who were employed at two-year colleges perceived the community resources factor as being significantly more important than participants employed at other postsecondary education setting. A study by Collins and Mowbray (2005) with 275 disability service professionals yielded similar findings. They attributed their findings to the important role 2-year colleges play in providing community access to postsecondary education. Further, 2-year colleges are often at the forefront of college-community partnerships because of their focus on competency-based education, which are standards developed by business and community leaders (Soska & Butterfield, 2013).

Factor Five - Campus Considerations

The last factor, Campus Considerations, contained seven items ($M = 3.94$, $SD = 1.04$). Similar to Factor Four, collaborating with the campus community was perceived to be important. Bertram (2010) noted that the responsibility to support students with psychiatric disabilities is not solely on disability service professionals. The broad range of student needs requires collaboration with faculty and staff in Counseling and Psychological Services, Student Affairs, Academic Affairs, Student Health Center, Residential Living, and other campus entities. Stein (2005) revealed an initial hesitation

by faculty and staff when supporting students with psychiatric disabilities. However, when disability service professionals provided technical assistance and training, faculty and staff became more comfortable.

Another highly rated item was knowledge of campus safety concerns related to psychiatric disabilities ($M = 4.15$, $SD = 0.87$). In an effort to address campus safety, Mowbray and colleagues (2006) suggested that there should be a well-developed and comprehensive system to prevent psychiatric crises and to respond to crises when they occur. Through campus security, there should be procedures for responding to students who are self-identified or identified by staff, faculty, or other students as being in a psychiatric crisis, to ensure the safety of the individual and campus community. Disability service professionals should be key partners in the coordination of campus safety procedures (Flynn & Heitzmann, 2008; Mowbray et al., 2006).

Differences Between Professional and Student Perceptions

Disability service professionals in both the Delphi survey and national survey rated the knowledge, skill, and attitudinal items consistently. However, there were differences in ratings between disability service professionals and students with psychiatric disabilities. These differences in ratings pertain to four items in particular. First, students perceived the ability of disability service professionals to assist them develop natural supports as being particularly important ($M = 4.00$, $SD = 0.75$). Disability service professionals rated this item lower ($M = 2.87$, $SD = 1.33$). According to Fabian, Edelman and Leedy (1993), natural supports refer to enhancing or linking students to existing academic and social supports in the postsecondary education settings

that are available either informally (other students, family members, friends) or formally (campus staff members). Students often view natural supports as attracting less attention from the campus community and thereby inducing less stigma associated with seeking disability services (Belch, 2011). On the other hand, disability service professionals may perceive the establishment of natural supports as requiring substantial up-front time and effort (McEwan & Downie, 2013). Once established however, natural supports yield important outcomes for students with psychiatric disabilities such as improved peer relationships, enhanced self-advocacy skills, and an increased persistence to degree completion (McEwan & Downie, 2013).

Second, students perceived the ability of disability service professionals to assist them prepare for employment as being important ($M = 3.86$, $SD = 0.77$). Disability service professionals rated this item lower ($M = 2.86$, $SD = 1.24$). Researchers have clearly documented the challenges individuals with psychiatric disabilities face when pursuing gainful employment (Henry & Lucca, 2004), as well as the role of postsecondary education in improving employment outcomes (Collins & Mowbray, 2005). However, few studies have explored the role of disability service professionals in preparing students with psychiatric disabilities for employment (Unger, Pardee, & Shafer, 2000). Unger and colleagues encouraged disability service professionals to help students with psychiatric disabilities to prepare for employment. With the help of disability service professionals, students have the potential to develop a stronger understanding of their own disabilities, determine effective accommodations, and practice appropriate social skills for the workplace (Unger et al., 2000). Yet, the substantial time and effort required by disability service professionals to prepare students for employment is an

important consideration. Instead, collaboration with community agencies is imperative. State vocational rehabilitation agencies and community rehabilitation providers often fulfill the role of preparing students with psychiatric disabilities for employment.

Third, students perceived the ability of disability service professionals to be important in assisting them transition into independent living settings ($M = 3.13$, $SD = 0.82$). Disability service professionals rated this item lower ($M = 2.06$, $SD = 1.31$). Yet, the President's New Freedom Commission on Mental Health (2003) identified independent living as a national priority for the mental health system. Torrey (2001) reported that few people with psychiatric disabilities are living independently. For example, among individuals with schizophrenia, approximately 31% are living independently, 28% are living with a family member, 17% are in supervised living (i.e. halfway houses), and 24% are in hospitals, nursing homes, jails/prisons, or on the streets (Torrey, 2001). Among those counted as living in the community often lead isolated, barren lives without social, educational, or recreational outlets (Flanagan et al., 2010). In regards to postsecondary education, the topic of independent living is often discussed within the context of on-campus housing. Bybee, Bellamy, and Mowbray (2000) found that students with psychiatric disabilities who rated their on-campus housing experience higher were more likely to persist to degree completion. Bybee and colleagues encouraged disability service professionals to provide information and resources about psychiatric disabilities to residential life staff. However, similar to the previous item, the time and effort involved in preparing students to transition into independent living settings may not be viable for disability service professionals. Community agencies like independent living centers and vocational rehabilitation can assist as well.

Lastly, students perceived the ability of disability service professionals to implement supported education strategies as being important ($M = 3.45$, $SD = 0.99$). Disability service professionals rated this item lower ($M = 2.83$, $SD = 1.39$). Supported education is a psychiatric rehabilitation intervention that provides assistance, preparation, and support to students with psychiatric disabilities enrolling in and completing postsecondary education (Collins & Mowbray, 2005). As Brown (2002) noted, most supported education programs offer the following core services: career planning (providing instruction, support, counseling, and assistance with vocational self-assessment, career exploration, development of an educational plan, and course selection), academic survival skills (strengthening basic educational competencies, time and stress management, developing social supports, and tutoring and mentoring services), and outreach to services and resources (facilitating referrals to campus and relevant human service agencies). Disability service professionals are important members of the supported education team (Brasher & Dei Rossi, 2009; Collins & Mowbray, 2005). Collins and Mowbray (2005) found that 15 % of disability service professionals had extensive involvement in supported education programming, 22 % had moderate involvement, 43 % had limited involvement, and 20 % had no involvement. The more supported education involvement by disability service professionals, the greater the student outcomes.

The current study was unique because students with psychiatric disabilities were active participants who served as experts during the Delphi survey. Bertram (2010) noted that the voice of students with psychiatric disabilities is often a missing component in the research process. Their lack of involvement is not due to an inability to contribute.

Rather, researchers may perceive student involvement as being time consuming, complex, and liability-prone (Knis-Matthews, Bokara, DeMeo, Lepore, & Mavus, 2007). The topic of participatory research extends to other disability groups as well, such as learning disabilities (Gilbert, 2004), intellectual disabilities (Iacono & Murray, 2003), and physical disabilities (Fawcett et al., 1994). Davidson and McDonald-Bellamy (2010) suggested that including people with disabilities in the research process acknowledges the important disability rights mantra of “nothing about us without us” (p. 6). Beyond the research process, Bertram (2010) called for the involvement of students with psychiatric disabilities in the development of mental health-related policies and supports in postsecondary education institutions. In addition to the fact that students with psychiatric disabilities are the most engaged with and affected by the mental health of their campus community, student involvement can expand their own understanding of advocacy and social justice (Bertram, 2010). Importantly, it was not the purpose of the current study to judge which perspective (disability service professionals or students with psychiatric disabilities) was right or wrong. Rather, the diverse perspectives added to the richness of the findings and implications.

Implications for Disability Service Professionals

The findings from the current study have important implications for disability services in postsecondary education. Notably, the knowledge, skills, and attitudes may guide professional development opportunities (i.e. in-service training) for disability service professionals. Collins and Mowbray (2005) suggested that in-service training is a key activity for disability service professionals because of their diverse educational and

professional backgrounds, which leads to many not being prepared to provide services to students with psychiatric disabilities. In their Code of Ethics, AHEAD (1996) also encouraged disability service professionals to pursue in-service training. The findings from this study provide AHEAD and similar in-service providers with a set of knowledge, skills, and attitudes to assist with identifying in-service training opportunities related to the provision of services to students with psychiatric disabilities. For training purposes, the next steps are to operationalize each item, establish a training protocol, and develop training evaluations and outcome measures. These elements will take the important step toward grounding the in-service training opportunities in sound pedagogical models. Examples of pedagogical models include *Implementing Effective Teaching Strategies* by Hofmeister and Lubke (1990), *Professional Development in Higher Education* by Zuber-Skerritt (1994), and *Professional Standards Framework* by Brown and colleagues (2010).

Assumptions and Limitations

All studies have underlying assumptions that are implicit (Remier & Van Ryzin, 2010). In this study, it was assumed that the knowledge, skills, and attitudes needed to work with students with psychiatric disabilities could be identified. The second assumption was that the knowledge, skills, and attitudes identified by the participants are representative of what is needed by the broad population of disability service professionals. The third assumption was that the participants were able to accurately and honestly assess the knowledge, skills, and attitudes that are needed to providing services to students with psychiatric disabilities. This study's assumptions lead to a series of

limitations. Participant responses may have been influenced or limited by the lack of ability to make discriminations about the level and depth of knowledge, skills, and attitudes needed by disability service professionals. Further, certain knowledge, skills, and attitudes may not have been identified during the instrument development process and therefore were not subjected to analysis.

Recommendations for Future Research

It is hoped that the current study will serve as a stimulus for future research. Addressing the above-mentioned limitations offers several research opportunities. Further, because of the exploratory nature of this study, the results are not exhaustive. Researchers should determine the potential presence of remaining knowledge, skills, and attitudes that are important for disability service professionals to possess in order to provide beneficial services to students with psychiatric disabilities in postsecondary education. Researchers should also determine how disability service professionals perceive their preparedness for each knowledge, skill, and attitudinal item. The topic of professional development may also lead to future research topics, including exploring effective methods for disability service professionals to develop (acquire, increase, and implement) the knowledge, skills, and attitudes that were identified in the current study. Researchers may also consider the use of alternative research methodologies that do not have the limitations associated with survey research. One example is a qualitative research study that explores the unique experiences of students with psychiatric disabilities in postsecondary education and how disability service professionals'

knowledge, skills, and attitudes affect the perceived service provision process and student outcomes.

This study revealed differences in perspectives between students with psychiatric disabilities and disability service professionals. As Ferguson (2005) suggested, researchers need to “fully capture the voice and participation of the student with a disability” (p. 331). The inclusion of student perspectives about disability services in postsecondary education represents another research opportunity. Delman (2012) suggested the use of participatory action research as an appropriate methodology for including students with psychiatric disabilities. Participatory action research is a process in which researchers and community members work collaboratively to combine knowledge and action for social change (Israel et al., 2003). Delman (2012) described the many benefits of participatory action research, including its positive impact on the quality and relevance of the research. In addition to participatory action research, future research should explore other methods of engaging students with psychiatric disabilities in the research process, such as regional and national focus groups.

Conclusion

The current study was the first to identify knowledge, skills, and attitudes that were perceived to be important for disability service professionals to possess in order to provide beneficial services to students with psychiatric disabilities. Students with psychiatric disabilities are an increasing presence on postsecondary education campuses. Their right to enroll in postsecondary education and reap the personal, social, and economic benefits is undisputed. However, researchers have recognized the challenges

these students face, oftentimes leading to their withdrawal prior to degree completion (Belch, 2011; Hartley, 2010). Researchers have also acknowledged the potential of disability service professionals to support students with psychiatric disabilities toward reaching their postsecondary education goals (Collins & Mowbray, 2005; McEwan & Downie, 2013). The 54 knowledge, skill, and attitudinal items identified in this study provide disability service professionals with a framework to use toward improving services for students with psychiatric disabilities. Further, the five factors that emerged from the principal components analysis allow for an even greater level of interpretability and usefulness. Guided by this study's findings and subsequent professional development opportunities, disability service professionals can move a step closer toward answering the calls to improve services for students with psychiatric disabilities in postsecondary education.

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APPENDICES

Appendix A

Institutional Review Board Approval Letter

Approval letter from USU IRB

noreply@usu.edu

Sent: Tuesday, August 13, 2013 11:40 AM

To: Jared Schultz; Scott Kupferman

**Institutional Review Board**

USU Assurance: FWA#00003308

Exemption #2

**Certificate of Exemption**

FROM:

Melanie Domenech Rodriguez, IRB Chair

True M. Rubal, IRB Administrator

To:

Jared Schultz, Scott Kupferman

Date:

August 13, 2013

Protocol #:

5293

Title:

Supporting Students With Psychiatric Disabilities In Postsecondary Education: Essential Knowledge, Skills, And Attitudes.

The Institutional Review Board has determined that the above-referenced study is exempt from review under federal guidelines 45 CFR Part 46.101(b) category #2:

Research involving the use of educational tests (cognitive, diagnostic, aptitude, achievement), survey procedures, interview procedures or observation of public behavior, unless: (a) information obtained is recorded in such a manner that human subjects can be identified, directly or through the identifiers linked to the subjects; and (b) any disclosure of human subjects' responses outside the research could reasonably place the subjects at risk of criminal or civil liability or be damaging to the subjects' financial standing, employability, or reputation.

This exemption is valid for three years from the date of this correspondence, after which the study will be closed. If the research will extend beyond three years, it is your responsibility as the Principal Investigator to notify the IRB before the study's expiration date and submit a new application to continue the research. Research activities that continue beyond the expiration date without new certification of exempt status will be in violation of those federal guidelines which permit the exempt status.

As part of the IRB's quality assurance procedures, this research may be randomly selected for continuing review during the three year period of exemption. If so, you will receive a request for completion of a Protocol Status Report during the month of the anniversary date of this certification.

In all cases, it is your responsibility to notify the IRB prior to making any changes to the study by submitting an Amendment/Modification request. This will document whether or not the study still meets the requirements for exempt status under federal regulations.

Upon receipt of this memo, you may begin your research. If you have questions, please call the IRB office at (435) 797-1821 or email to irb@usu.edu.

The IRB wishes you success with your research.

Appendix B

Delphi Round 3 Means, Standard Deviations, and Stability Scores

Delphi Survey - Round 3 (Professionals)

1. Rate each knowledge item on a level of importance (0 = lowest, 5 = highest)

Item	Mean	Standard Dev.	Stability X_2-X_3	n
Knowledge of reasonable accommodations for students with psychiatric disabilities	4.69	0.443	-0.07	16
Knowledge of how to interpret psychiatric and medical documentation	4.53	0.448	-0.04	16
Knowledge of diagnostic criteria (i.e. Diagnostic and Statistical Manual - DSM)	4.50	0.709	0.13	16
Knowledge of psychiatric medication types and side effects	4.41	0.555	0.02	16
Knowledge of specific psychiatric disabilities and their characteristics	4.41	0.541	0.02	16
Knowledge of legal obligations related to providing services to students with psychiatric disabilities	4.31	0.490	0.01	16
Knowledge of ethical obligations related to providing services to students with psychiatric disabilities	4.31	0.513	0.04	16
Knowledge of the predictors of college success for students with psychiatric	4.28	0.698	0.27	16

disabilities				
Knowledge of campus safety concerns related to psychiatric disabilities	4.22	0.747	-0.14	16
Knowledge of on-campus mental health resources	4.16	0.638	-0.03	16
Knowledge of community mental health resources	4.16	0.629	-0.06	16
Knowledge of stereotypes/stigma related to psychiatric disabilities	4.16	0.783	-0.11	16
Knowledge of natural supports for students with psychiatric disabilities	4.09	0.681	0.25	16
Knowledge of disability disclosure hesitations/difficulties related to psychiatric disabilities	3.91	0.492	0.04	16
Knowledge of supported education	3.63	0.847	-0.33	16
Knowledge of evidence-based practices related to psychiatric disabilities	3.56	0.799	-0.20	16
Knowledge of universal design for learning strategies related to students with psychiatric disabilities	3.06	0.555	0.08	16
Knowledge of psychiatric disabilities and substance abuse	3.06	0.784	-0.51	16
Knowledge of psychiatric recovery and rehabilitation processes	3.01	0.562	0.19	16

Knowledge of behavior problems related to psychiatric disabilities	2.63	0.555	0.11	16
Knowledge of behavioral strategies to address behavioral problems	2.50	0.491	0.09	16
Knowledge of counseling theories	2.34	0.465	0.01	16

2. Rate each skill item on a level of importance (0 = lowest, 5 = highest)

Item	Mean	Standard Dev.	Stability X_2-X_3	n
Ability to assess functional limitations of students with psychiatric disabilities	4.71	0.592	0.09	16
Ability to design reasonable accommodations for students with psychiatric disabilities	4.68	0.707	0.01	16
Ability to consult with faculty regarding students with psychiatric disabilities	4.58	0.629	-0.06	16
Ability to appropriately refer students to other professionals who provide services to students with psychiatric disabilities	4.58	0.677	0.27	16
Ability to teach self-determination skills to students with psychiatric disabilities	4.55	0.484	-0.04	16
Ability to collaborate	4.53	0.684	0.14	16

with professionals regarding students with psychiatric disabilities				
Ability to teach self-advocacy skills to students with psychiatric disabilities	4.52	0.720	0.03	16
Ability to assess strengths of students with psychiatric disabilities	4.52	0.711	0.36	16
Ability to advocate for students with psychiatric disabilities	4.52	0.635	-0.09	16
Ability to conduct faculty and staff trainings related to psychiatric disabilities	4.52	0.680	-0.05	16
Ability to follow the legal obligations related to providing services to students with psychiatric disabilities	4.39	0.502	-0.18	16
Ability to assess goals and interests of students with psychiatric disabilities	4.39	0.578	0.11	16
Ability to address stereotypes/stigma related to psychiatric disabilities	4.35	0.882	0.04	16
Ability to follow the ethical obligations related to providing services to students with psychiatric disabilities	4.35	0.631	-0.11	16
Ability to assist students in determining when to	4.32	0.677	0.03	16

disclose their psychiatric disability to faculty, staff, peers, and others				
Ability to advocate for institutional change to improve access for students with psychiatric disabilities	4.23	0.672	0.10	16
Ability to access information and resources about psychiatric disabilities	4.19	0.555	0.21	16
Ability to provide outreach to students with psychiatric disabilities	4.10	0.839	0.16	16
Ability to implement supported education strategies for students with psychiatric disabilities	4.03	0.870	0.44	16
Ability to conduct campus needs assessments related to improving the success of students with psychiatric disabilities	3.97	0.628	-0.06	16
Ability to apply diagnostic criteria (i.e. Diagnostic and Statistical Manual - DSM) to the college setting	3.87	0.681	-0.23	16
Ability to assist students psychiatric disabilities develop natural supports	3.71	0.667	0.05	16
Ability to teach academic success skills to students with psychiatric disabilities	3.32	0.790	0.05	16

Ability to assist students with psychiatric disabilities transition into college	3.19	0.601	0.01	16
Ability to assist students with psychiatric disabilities prepare for employment	3.16	0.549	-0.02	16
Ability to collaborate with families in regards to their family members with psychiatric disabilities	3.04	0.499	-0.18	16
Ability to address campus safety concerns related to students with psychiatric disabilities	2.71	0.508	-0.13	16
Ability to teach social skills to students with psychiatric disabilities	2.58	0.711	0.04	16
Ability to address behavioral problems that may arise because of students' psychiatric disabilities	2.45	0.645	0.06	16
Ability to assist students with psychiatric disabilities address potential substance abuse issues	2.32	0.699	0.05	16
Ability to assist students with psychiatric disabilities transition into independent living settings	1.90	0.594	-0.11	16

3. Rate each attitude item on a level of importance (0 = lowest, 5 = highest)

Item	Mean	Standard Dev.	Stability X_2-X_3	n
Rejection of stereotypes/stigma toward students with psychiatric disabilities	4.55	0.580	0.01	16
Desire to see students with psychiatric disabilities succeed in college	4.55	0.682	0.12	16
Desire to pursue continuing education opportunities related to psychiatric disabilities	4.55	0.684	0.05	16
Possession of an understanding that not all students with psychiatric disabilities pose a danger to the campus community	4.52	0.727	-0.02	16
Desire to collaborate with community partners to assist students with psychiatric disabilities	4.48	0.661	-0.03	16
Possession of empathy toward students with psychiatric disabilities	4.48	0.727	-0.19	16
Possession of a friendly attitude toward students with psychiatric disabilities	4.45	0.681	-0.26	16
Desire to accommodate the cyclical nature of psychiatric disabilities	4.23	0.556	-0.07	16

Delphi Survey - Round 3 (Students)

1. Rate each knowledge item on a level of importance (0 = lowest, 5 = highest)

Item	Mean	Standard Dev.	Stability X_2-X_3	n
Knowledge of stereotypes/stigma related to psychiatric disabilities	4.80	0.577	0.03	14
Knowledge of disability disclosure hesitations/difficulties related to psychiatric disabilities	4.66	0.491	-0.01	14
Knowledge of natural supports for students with psychiatric disabilities	4.65	0.762	0.14	14
Knowledge of reasonable accommodations for students with psychiatric disabilities	4.65	0.603	0.01	14
Knowledge of community mental health resources	4.62	0.602	0.09	14
Knowledge of on-campus mental health resources	4.61	1.009	0.15	14
Knowledge of the predictors of college success for students with psychiatric disabilities	4.57	0.832	-0.07	14
Knowledge of supported education	4.55	0.907	0.27	14
Knowledge of ethical obligations related to providing services to students with psychiatric disabilities	4.34	0.639	-0.06	14
Knowledge of legal obligations related to	4.34	0.711	-0.09	14

providing services to students with psychiatric disabilities				
Knowledge of specific psychiatric disabilities and their characteristics	4.00	0.694	0.00	14
Knowledge of psychiatric medication types and side effects	3.99	0.698	0.23	14
Knowledge of how to interpret psychiatric and medical documentation	3.97	0.581	-0.10	14
Knowledge of universal design for learning strategies related to students with psychiatric disabilities	3.92	0.945	0.38	14
Knowledge of evidence-based practices related to psychiatric disabilities	3.60	0.762	-0.60	14
Knowledge of psychiatric recovery and rehabilitation processes	3.33	0.761	-0.02	14
Knowledge of diagnostic criteria (i.e. Diagnostic and Statistical Manual - DSM)	3.31	0.680	0.05	14
Knowledge of psychiatric disabilities and substance abuse	2.95	0.494	0.01	14
Knowledge of campus safety concerns related to psychiatric disabilities	2.92	0.703	-0.02	14
Knowledge of	2.90	0.555	-0.14	14

behavior problems related to psychiatric disabilities				
Knowledge of behavioral strategies to address behavioral problems	2.88	0.600	-0.04	14
Knowledge of counseling theories	2.72	0.538	-0.03	14

2. Rate each skill item on a level of importance (0 = lowest, 5 = highest)

Item	Mean	Standard Dev.	Stability X_2-X_3	n
Ability to address stereotypes/stigma related to psychiatric disabilities	4.84	0.425	-0.04	14
Ability to assist students in determining when to disclose their psychiatric disability to faculty, staff, peers, and others	4.79	0.555	0.01	14
Ability to design reasonable accommodations for students with psychiatric disabilities	4.72	0.542	-0.15	14
Ability to advocate for students with psychiatric disabilities	4.40	0.603	-0.04	14
Ability to teach self-advocacy skills to students with psychiatric disabilities	4.38	0.552	-0.03	14
Ability to teach self-determination skills to students with psychiatric disabilities	4.37	0.579	-0.01	14
Ability to assess	4.33	0.701	0.18	14

strengths of students with psychiatric disabilities				
Ability to assess goals and interests of students with psychiatric disabilities	4.33	0.763	0.03	14
Ability to assess functional limitations of students with psychiatric disabilities	4.33	0.751	0.05	14
Ability to provide outreach to students with psychiatric disabilities	4.16	0.620	0.26	14
Ability to advocate for institutional change to improve access for students with psychiatric disabilities	4.08	0.695	0.20	14
Ability to conduct campus needs assessments related to improving the success of students with psychiatric disabilities	4.04	0.804	0.03	14
Ability to assist students psychiatric disabilities develop natural supports	4.00	0.747	0.15	14
Ability to teach academic success skills to students with psychiatric disabilities	3.93	0.993	-0.39	14
Ability to assist students with psychiatric disabilities prepare for employment	3.86	0.766	-0.17	14
Ability to assist students with	3.84	0.709	-0.17	14

psychiatric disabilities transition into college				
Ability to follow the ethical obligations related to providing services to students with psychiatric disabilities	3.83	0.660	-0.05	14
Ability to collaborate with professionals regarding students with psychiatric disabilities	3.82	0.681	0.08	14
Ability to appropriately refer students to other professionals who provide services to students with psychiatric disabilities	3.79	1.040	0.01	14
Ability to follow the legal obligations related to providing services to students with psychiatric disabilities	3.77	0.698	-0.09	14
Ability to access information and resources about psychiatric disabilities	3.76	0.730	-0.06	14
Ability to consult with faculty regarding students with psychiatric disabilities	3.48	0.701	0.20	14
Ability to implement supported education strategies for students with psychiatric disabilities	3.45	0.989	-0.09	14
Ability to conduct faculty and staff trainings related to	3.19	0.554	-0.13	14

psychiatric disabilities				
Ability to address campus safety concerns related to students with psychiatric disabilities	3.19	0.711	-0.54	14
Ability to assist students with psychiatric disabilities transition into independent living settings	3.13	0.821	0.05	14
Ability to apply diagnostic criteria (i.e. Diagnostic and Statistical Manual - DSM) to the college setting	3.10	0.550	0.11	14
Ability to collaborate with families in regards to their family members with psychiatric disabilities	3.10	0.785	-0.06	14
Ability to teach social skills to students with psychiatric disabilities	3.00	0.469	0.01	14
Ability to assist students with psychiatric disabilities address potential substance abuse issues	2.77	0.505	0.08	14
Ability to address behavioral problems that may arise because of students' psychiatric disabilities	2.72	0.512	-0.02	14

3. Rate each attitude item on a level of importance (0 = lowest, 5 = highest)

Item	Mean	Standard Dev.	Stability X_2-X_3	n
Rejection of stereotypes/stigma toward students with psychiatric disabilities	4.91	0.480	-0.06	14
Desire to see students with psychiatric disabilities succeed in college	4.85	0.599	0.10	14
Possession of an understanding that not all students with psychiatric disabilities pose a danger to the campus community	4.82	0.494	0.22	14
Possession of a friendly attitude toward students with psychiatric disabilities	4.70	0.678	-0.06	14
Possession of empathy toward students with psychiatric disabilities	4.70	0.634	0.15	14
Desire to accommodate the cyclical nature of psychiatric disabilities	4.63	0.772	0.15	14
Desire to collaborate with community partners to assist students with psychiatric disabilities	4.62	0.690	0.03	14
Desire to pursue continuing education opportunities related to psychiatric disabilities	4.39	0.659	-0.38	14

Appendix C
Final Survey Instrument

Supporting Students with Psychiatric Disabilities in Postsecondary Education: Essential Knowledge, Skills, and Attitudes

PART A: Letter of Information

Dr. Jared Schultz, Ph.D., and Scott Kupferman, MS, of the Utah State University Department of Special Education and Rehabilitation are conducting a study to identify the knowledge, skills, and attitudes that disability service professionals must possess in order to provide beneficial services to students with psychiatric disabilities in postsecondary education. This research has been approved by the Utah State University - Institutional Review Board.

If you are a member of the Association for Higher Education and Disability (AHEAD) and are currently employed in a 2-year college or 4-year university disability service office in the United States, you are eligible to complete this survey.

If you agree to be in this research study, you will be asked to complete a survey regarding the knowledge, skills, and attitudes that disability service professionals must possess in order to provide beneficial services to students with psychiatric disabilities in postsecondary education. This survey will consist of questions asking you to rate the level of importance of each item (knowledge, skills, and attitude). We estimate that this survey will take 25 minutes to complete. You will have control over the place and time that you complete the survey.

Research records will be kept confidential, consistent with federal and state regulations. Only the researchers will have access to the data which will be kept in a on a password protected computer or password protected survey account. To protect your privacy, personal/identifiable information will not be collected. Potential identifiers (i.e., region of postsecondary education, type of postsecondary education institution, etc.) are broad enough to prevent identification of respondents.

If you have any questions or concerns about the survey, you may contact Scott Kupferman at email: scott.kupferman@usu.edu / phone: (435) 797-8411 or Dr. Jared Schultz at email: jared.schultz@usu.edu / phone: (435) 797-3478 or the Utah State University Institutional Review Board at email: irb@usu.edu / phone: (435) 797-0567.

If you are interested in participating, please click on the link below to complete the survey.

Thank you for your time and assistance!

PART B: Demographic Questions

1. What is your highest obtained professional degree?
 - A. Associate's Degree (A.A., A.A.S., or other Associate's)

- B. Bachelor's Degree (B.A., B.S., B.I., or other Bachelor's)
 - C. Master's Degree (M.A., M.S., M.S.W., M.Ed., or other Master's)
 - D. Doctoral Degree (Ph.D., Ed.D., J.D., M.D., or other Doctorate)
 - E. Other (please describe)
2. In what field is your professional degree?
- A. Rehabilitation Counseling
 - B. Counseling
 - C. Special Education
 - D. Disability Studies
 - E. Psychology
 - F. Social Work
 - G. Higher Education Administration
 - H. Other (please describe)
3. In what type of postsecondary education institution do you currently work?
- A. Two-Year College
 - B. Four-Year University
 - C. Vocational/Technical College
 - D. Other (please describe)
4. Where in the United States do you reside?
- A. Region 1 - New England (Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, Connecticut)
 - B. Region 2 - Mid-Atlantic (New York, Pennsylvania, New Jersey)
 - C. Region 3 - East North Central (Wisconsin, Michigan, Illinois, Indiana, Ohio)
 - D. Region 4 - West North Central (Missouri, North Dakota, South Dakota, Nebraska, Kansas, Minnesota, Iowa)
 - E. Region 5 - South Atlantic (Delaware, Maryland, District of Columbia, Virginia, West Virginia, North Carolina, South Carolina, Georgia, Florida)
 - F. Region 6 - East South Central (Kentucky, Tennessee, Mississippi, Alabama)
 - G. Region 7 - West South Central (Oklahoma, Texas, Arkansas, Louisiana)
 - H. Region 8 - Mountain (Idaho, Montana, Wyoming, Nevada, Utah, Colorado, Arizona, New Mexico)
 - I. Region 9 - Pacific (Alaska, Washington, Oregon, California, Hawaii)
5. How many years have you worked as a disability service professional in postsecondary education?
6. How best would you describe your job title?
- A. Director/Manager

- B. Specialist (including Disability Specialist, Resource Specialist, Accessibility Specialist, etc.)
- C. ADA/504 Coordinator
- D. Advisor or Academic Counselor
- E. Other (please describe)

PART C: Rate each knowledge item on a level of importance (0 = lowest, 5 = highest)

- Knowledge of stereotypes/stigma related to psychiatric disabilities
- Knowledge of community mental health resources
- Knowledge of on-campus mental health resources
- Knowledge of evidence-based practices related to psychiatric disabilities
- Knowledge of natural supports for students with psychiatric disabilities
- Knowledge of supported education
- Knowledge of reasonable accommodations for students with psychiatric disabilities
- Knowledge of ethical obligations related to providing services to students with psychiatric disabilities
- Knowledge of legal obligations related to providing services to students with psychiatric disabilities
- Knowledge of how to interpret psychiatric and medical documentation
- Knowledge of psychiatric recovery and rehabilitation processes
- Knowledge of universal design for learning strategies related to students with psychiatric disabilities
- Knowledge of specific psychiatric disabilities and their characteristics
- Knowledge of campus safety concerns related to psychiatric disabilities
- Knowledge of diagnostic criteria (i.e. Diagnostic and Statistical Manual - DSM)
- Knowledge of psychiatric medication types and side effects
- Knowledge of the predictors of college success for students with psychiatric disabilities
- Knowledge of disability disclosure hesitations/difficulties related to psychiatric disabilities

PART D: Rate each skill item on a level of importance (0 = lowest, 5 = highest)

- Ability to address stereotypes/stigma related to psychiatric disabilities
- Ability to advocate for students with psychiatric disabilities
- Ability to appropriately refer students to other professionals who provide services to students with psychiatric disabilities
- Ability to assess functional limitations of students with psychiatric disabilities
- Ability to assess strengths of students with psychiatric disabilities
- Ability to assess goals and interests of students with psychiatric disabilities
- Ability to collaborate with families in regards to their family members with psychiatric disabilities

- Ability to collaborate with professionals regarding students with psychiatric disabilities
- Ability to consult with faculty regarding students with psychiatric disabilities
- Ability to conduct campus needs assessments related to improving the success of students with psychiatric disabilities
- Ability to conduct faculty and staff trainings related to psychiatric disabilities
- Ability to assist students with psychiatric disabilities prepare for employment
- Ability to teach academic success skills to students with psychiatric disabilities
- Ability to teach self-advocacy skills to students with psychiatric disabilities
- Ability to teach self-determination skills to students with psychiatric disabilities
- Ability to teach social skills to students with psychiatric disabilities
- Ability to assist students with psychiatric disabilities transition into college
- Ability to assist students with psychiatric disabilities transition into independent living settings
- Ability to assist students psychiatric disabilities develop natural supports
- Ability to implement supported education strategies for students with psychiatric disabilities
- Ability to provide outreach to students with psychiatric disabilities
- Ability to advocate for institutional change to improve access for students with psychiatric disabilities
- Ability to apply diagnostic criteria (i.e. Diagnostic and Statistical Manual - DSM) to the college setting
- Ability to access information and resources about psychiatric disabilities
- Ability to assist students in determining when to disclose their psychiatric disability to faculty, staff, peers, and others
- Ability to follow the ethical obligations related to providing services to students with psychiatric disabilities
- Ability to follow the legal obligations related to providing services to students with psychiatric disabilities
- Ability to design reasonable accommodations for students with psychiatric disabilities

PART E: Rate each attitude item on a level of importance (0 = lowest, 5 = highest)

- Possession of a friendly attitude toward students with psychiatric disabilities
- Possession of empathy toward students with psychiatric disabilities
- Desire to see students with psychiatric disabilities succeed in college
- Desire to pursue continuing education opportunities related to psychiatric disabilities
- Desire to collaborate with community partners to assist students with psychiatric disabilities
- Desire to accommodate the cyclical nature of psychiatric disabilities
- Possession of an understanding that not all students with psychiatric disabilities pose a danger to the campus community
- Rejection of stereotypes/stigma toward students with psychiatric disabilities

Appendix D

Principal Components Analysis Item Loadings

Principal Components Analysis Item Loadings

Factors	Loading
Factor One - Ethical and Legal Considerations	
1. Possession of an understanding that not all students with psychiatric disabilities pose a danger to the campus community	0.66
2. Rejection of stereotypes/stigma toward students with psychiatric disabilities	0.72
3. Ability to follow the legal obligations related to providing services to students with psychiatric disabilities	0.58
4. Desire to see students with psychiatric disabilities succeed in college	0.58
5. Possession of a friendly attitude toward students with psychiatric disabilities	0.54
6. Knowledge of legal obligations related to providing services to students with psychiatric disabilities	0.64
7. Ability to follow the ethical obligations related to providing services to students with psychiatric disabilities	0.70
8. Knowledge of ethical obligations related to providing services to students with psychiatric disabilities	0.54
9. Possession of empathy toward students with psychiatric disabilities	0.62
10. Knowledge of disability disclosure hesitations/difficulties related to psychiatric disabilities	0.64
11. Knowledge of stereotypes/stigma related to psychiatric disabilities	0.56
12. Ability to assist students in determining when to disclose their psychiatric disability to faculty, staff, peers, and others	0.63
13. Ability to address stereotypes/stigma related to psychiatric disabilities	0.69
Factor Two - Accommodations and Supports	
1. Ability to design reasonable accommodations for students with psychiatric disabilities	0.84
2. Knowledge of reasonable accommodations for students with psychiatric disabilities	0.84
3. Ability to advocate for students with psychiatric disabilities	0.76
4. Ability to teach self-advocacy skills to students with psychiatric disabilities	0.70
5. Ability to teach self-determination skills to students with psychiatric disabilities	0.59
6. Knowledge of universal design for learning strategies related to students with psychiatric disabilities	0.66
7. Knowledge of natural supports for students with psychiatric disabilities	0.41
8. Knowledge of evidence-based practices related to psychiatric disabilities	0.70

9. Ability to assist students with psychiatric disabilities transition into college	0.68
10. Ability to teach academic success skills to students with psychiatric disabilities	0.47
11. Ability to provide outreach to students with psychiatric disabilities	0.53
12. Ability to teach social skills to students with psychiatric disabilities	0.58

Factor Three - Disability Aspects

1. Desire to accommodate the cyclical nature of psychiatric disabilities	0.54
2. Knowledge of how to interpret psychiatric and medical documentation	0.58
3. Knowledge of specific psychiatric disabilities and their characteristics	0.67
4. Ability to assess functional limitations of students with psychiatric disabilities	0.60
5. Ability to assess strengths of students with psychiatric disabilities	0.62
6. Ability to assess goals and interests of students with psychiatric disabilities	0.58
7. Knowledge of diagnostic criteria (i.e. Diagnostic and Statistical Manual - DSM)	0.39
8. Knowledge of psychiatric recovery and rehabilitation processes	0.64
9. Knowledge of psychiatric medication types and side effects	0.57
10. Knowledge of the predictors of college success for students with psychiatric disabilities	0.67
11. Ability to apply diagnostic criteria (i.e. Diagnostic and Statistical Manual - DSM) to the college setting	0.46

Factor Four - Community Resources

1. Ability to appropriately refer students to other professionals who provide services to students with psychiatric disabilities	0.72
2. Ability to access information and resources about psychiatric disabilities	0.63
3. Ability to collaborate with professionals regarding students with psychiatric disabilities	0.67
4. Desire to pursue continuing education opportunities related to psychiatric disabilities	0.70
5. Desire to collaborate with community partners to assist students with psychiatric disabilities	0.71
6. Knowledge of community mental health resources	0.65
7. Ability to collaborate with families in regards to their family members with psychiatric disabilities	0.44

Factor Five - Campus Considerations

1. Knowledge of on-campus mental health resources	0.53
2. Ability to consult with faculty regarding students with psychiatric disabilities	0.50
3. Knowledge of campus safety concerns related to psychiatric disabilities	0.57

4. Ability to conduct faculty and staff trainings related to psychiatric disabilities	0.64
5. Ability to advocate for institutional change to improve access for students with psychiatric disabilities	0.62
6. Ability to conduct campus needs assessments related to improving the success of students with psychiatric disabilities	0.50
7. Knowledge of supported education	0.49

CURRICULUM VITAE

SCOTT KUPFERMAN

Education

Utah State University, Rehabilitation Counseling, Ph.D., 2013
 California State University, Rehabilitation Counseling, M.S., 2007
 Northern Arizona University, Speech-Language Pathology and Special Education, B.A., 2004

Certifications

Certified Rehabilitation Counselor, # 00102262

Selected Professional Employment

Assistant Professor, University of Colorado, 2013-Present
 Project Director and Principal Investigator, Utah State University, 2012-2013
 Project Coordinator, Utah State University, 2011-2013
 Director of Special Projects and Lecturer, California State University, 2010-2011
 Assistive Technology Coordinator, California State University, 2007-2010
 Assistive Technology Specialist, Center for Independent Living, 2005-2006
 Transition Teacher, ARISE/Flagstaff Unified School District, 2002-2004

Selected Professional Honors (Total: 14)

Research Award, American Association for Intellectual and Developmental Disabilities, 2013
 President's Award, National Council on Rehabilitation Education, 2011
 Delegate, National Council on Disability, 2010
 Commissioner's Award for Excellence, Rehabilitation Services Administration, 2006

Selected Publications (Total: 12)

Kupferman, S. (2013). Job accommodations and assistive technology. In C. R. Flowers, J. L. Soldner, & S. L. Robertson (Eds.), *Counseling Supervision and Administrative Practices in Allied Health Professions*. Linn Creek, MO: Aspen Publishing.

Riesen, T., Schultz, J., Morgan, R., & Kupferman, S. (2013). School to work barriers as identified by special educators, vocational rehabilitation counselors, and community rehabilitation professionals. *Journal of Rehabilitation*.

Selected Funded Grants and Contracts (Total: \$4,405,371)

Grant Writer and Technical Advisor, 2011
U.S. Department of Education - Office of Postsecondary Education
 - \$2,500,000: Transition Programs for Students with Intellectual Disabilities Into Higher Education - Model Comprehensive Transition and Postsecondary Programs
 Co-Principal Investigator, 2010
American Recovery and Reinvestment Act
 - \$283,508: Programs to Increase Employment, Independence, and Equality for Individuals with Disabilities

Selected Presentations (Total: 22)

Kupferman, S. (2012). *Assistive technology transition assessment for youth, families, and service providers*. Presented at the National Transition Conference, Washington, DC.

Selected Service (Total: 42 International, National, University, and Community Roles)
Faculty Fellow, California State University - Universal Design for Learning, 2010-2011
Co-Chair, California State University - Instructional Accessibility Committee, 2010-2011