

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

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Abstract

We 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. Using a three-round Delphi survey, two groups of experts identified 54 knowledge, skill, and attitudinal items. A national sample of 402 disability service professionals then rated each item. A principal components analysis revealed five factors: (a) Ethical and Legal Considerations, (b) Accommodations and Supports, (c) Disability Aspects, (d) Community Resources, and (e) Campus Considerations. Findings are discussed in regards to implications, assumptions, limitations, and recommendations for future research.

Keywords: Psychiatric disabilities, postsecondary education, disability services, knowledge, skills, attitudes

According to the Government Accountability Office ([GAO], 2009), approximately 11% of students enrolled in postsecondary education have a disability. Students with psychiatric disabilities (24%) constitute one of the largest subgroups (GAO, 2009). This subgroup includes students with post-traumatic stress disorder, depression, schizophrenia, bipolar disorder, obsessive-compulsive disorder, panic disorder, personality disorder, and other related disabilities (Kukla & Bond, 2010). Despite their high enrollment, approximately 86% of students with psychiatric disabilities withdraw prior to degree completion, as opposed to 47% of students with other types of disabilities and 36% of students without disabilities (Hurst & Smerdon, 2000; Kessler et al., 1995; Salzer, Wick, & Rogers, 2008). 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; President's New Freedom Commission on Mental Health, 2003). These statistics have led to calls for improved postsecondary education services for students with psychiatric disabilities (McEwan & Downie, 2013; National Alliance on Mental Illness, 2012; Sharpe et al., 2004).

Calls for improved services have been directed toward disability service professionals (DSPs) in postsecondary education institutions. Sharpe and colleagues (2004) found that although DSPs 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. Scholars have suggested that DSPs 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, however, these competencies have not been clearly identified. Therefore, the purpose of this study was to begin the exploratory process of identifying knowledge, skills, and attitudes that are important for DSPs to possess in order to provide beneficial services to students with psychiatric disabilities in postsecondary education.

Review of the Literature

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 face additional challenges. For example, their disability 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).

In a national study, Salzer, Wick, and Rogers (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. What is known is that the amount and type of disability services vary among students with psychiatric disabilities (Salzer, Wick, & Rogers, 2008). Further, not all students with psychiatric disabilities receive DSP services. Students might choose to receive services from private and community mental health providers, who offer more frequent and continuous services beyond the postsecondary education setting.

On campus, the responsibility of providing accommodations to students with psychiatric disabilities generally falls upon DSPs. DSPs 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). Additional responsibilities include the development of natural supports, which Fabian and colleagues (1993) define as 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).

Some DSPs specialize in providing services to students with psychiatric disabilities. The majority, however, are generalists who provide services to students with a range of documented disabilities (AHEAD, 2013; Harbour, 2008). DSPs come from a variety of backgrounds, with earned degrees in areas such as human resources, risk management, higher education administration, legal affairs, rehabilitation counseling, psychology, and special education (AHEAD, 2013). Considering this diversity of students served and professional backgrounds, most DSPs are members of professional teams who offer coordinated services to students with psychiatric disabilities. Therefore, the knowledge, skills, and attitudes identified in the current study might be dispersed across several types of professionals working in a variety of offices (i.e., rehabilitation counselors, mental health counselors, social workers, etc.).

Methodology

The following research questions guided this study:

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

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

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

RQ4: Do *perceptions* of the importance of knowledge, skills, and attitudinal items differ according to demographic and professional characteristics?

Participants

Participants were recruited from a database of DSPs who were members of the Association of Higher Education and Disability (AHEAD; www.ahead.org). Of the 1,609 AHEAD members who received the survey, 402 (24.98%) usable responses were received. Participants had a mean of 11.6 years experience in the field of disability services. In regards to employment characteristics, most participants reported Director/Manager (49%) or Disability Specialist (35%) job titles and were employed in four-year (68%) and two-year

(23%) colleges/universities. In regards to educational characteristics, most participants possessed Master's degrees (72%) in various areas of study, including Other (28%), Rehabilitation Counseling (17%), Counseling (15%), and Psychology (12%). Participants were geographically dispersed with the highest percentage coming from the East North Central region. Full demographic and professional characteristics are listed in Table 1.

Instrument Development

A thorough review of the literature revealed no prior identification of knowledge, skills, and attitudes that are important for DSPs 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) DSPs and (b) students with psychiatric disabilities. The second phase was a field test of the instrument with six DSPs.

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). The Delphi survey used a convenience sample of two expert panels. The first panel consisted of full-time DSPs 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 AHEAD Psychiatric Disabilities Special Interest Group; (b) Minimum of five 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) Current 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 two-year college or four-year university; and (c) Registered with a disability services office as a student with a psychiatric disability. 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 participants responded to a series of three

sequential electronic surveys (also called rounds). They had 10 days to complete each round using online survey software. The first round contained a letter of information that described the purpose, procedures, instructions, risks, benefits, confidentiality, and an Institutional Review Board approval statement. Participants completed a series of demographic and professional experience questions and responded to three open-ended questions that asked them to identify knowledge, skills, and attitudes they perceived to be important for DSPs to possess in order to provide beneficial services to students with psychiatric disabilities in postsecondary education.

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, the authors jointly conducted a content analysis. 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 are analyzed) and the sorting of coded data. 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 items on a 6-point Likert scale of perceived importance (0 = lowest, 5 = highest). Each panel rated the same set of items, although their responses were analyzed separately to explore potential differences between groups. 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 et al., 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 shown the means and standard deviations from the second round and asked to re-rate the 61 items. The purpose of showing participants the means and standard deviations was to provide data that might help to build consensus among participants. The descriptive statistics from Round 2 and Round 3 were compared. Consensus was determined based upon the commonly used criteria of (a) stability - less than a .50 difference between the means in Round 2 and 3 and (b) variation -

Table 1

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
East South Central	12	3

standard deviation greater than .80 in at least one of the two expert panels (Buck et al., 1993; Hsu & Sandford, 2007). 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). A total of seven items were removed, resulting in 54 knowledge, skill, and attitudinal items that met consensus.

Field Test. The Delphi survey resulted in a draft instrument with 54 items that was field tested with a group ($N = 6$) of participants who were independent of the Delphi survey. The field test participants were randomly selected from the AHEAD membership database. Their job titles were Director/Manager ($n = 3$) and Disability Specialist ($n = 3$) and employment settings were Four-Year University ($n = 5$) and Two-Year University ($n = 1$). The field test participants possessed Master's Degrees ($n = 5$) and a Doctoral Degree ($n = 1$) within the fields of Rehabilitation Counseling ($n = 3$), Counseling ($n = 1$), Psychology ($n = 1$), and Other ($n = 1$). Their geographic regions were Mid-Atlantic ($n = 2$), Pacific ($n = 2$), New England ($n = 1$), and West North Central ($n = 1$). The field test participants 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.

Data Collection

Subsequent to obtaining support from AHEAD, its Executive Director sent a request for participation email to DSPs who were members of AHEAD. Delphi survey panelists and field test participants were excluded. The participation 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. It 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 one week after the initial email and another reminder email prompt sent one day prior to the survey's closing date. The final electronic survey instrument consisted of demographic questions (years of professional experience, highest obtained professional degree, field of professional degree, employment setting, and geographic region), and 54 knowledge, skill, and attitudinal items. Content validity was addressed through the development methodology used in the construction of this instrument (Hsu & Sandford, 2007).

Results

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). Variables with correlations that were too high (above .9) and too low (below .1) were removed (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 to 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 ($M = 2.06$, $SD = 1.31$).

Cattell's scree test indicated a five-factor solution. The five-factor solution with a varimax rotation proved to be optimal for this study, accounting for 60.5% of the variance. In order to assign items to factors, the highest loading for each item was used (Tabachnick & Fidell, 2013). Labels were created to clearly describe the contents of each factor. Factor labels, items, and descriptive statistics are provided in Table 2. 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, challenging 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,

Table 2

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 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. 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 of the national survey DSPs participants, 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 Lambda = $F .90$, $p < .05$) was found for the employment setting variable. An independent-samples t test comparison revealed that participants who were employed at two-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 DSPs rated these items low in the AHEAD survey, students with psychiatric disabilities rated them high in the Delphi survey. While additional research is needed to establish empirical differences, the differences in ratings warranted analysis because of the unique inclusion of student perspectives. The first item was the ability to assist students with psychiatric disabilities develop natural supports. DSPs 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. DSPs 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. DSPs 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. DSPs 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.

Discussion

This study began with a three-round Delphi survey where two panels of experts gained consensus on 54 knowledge, skill, and attitudinal items. 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 Amendments Act of 2008. Lastly, AHEAD published a Code of Ethics that represented the principles and values DSPs should use to govern their activities and decisions (AHEAD, 1996). This widely disseminated Code of Ethics 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 DSPs 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 functional limitations of a psychiatric

disability (Belch, 2011). When members of the campus community, including DSPs, view students with psychiatric disabilities without stigma, these students will face less opposition when it comes to receiving fair and comprehensive services (Kihara & 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 DSPs 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, Pellerito, and Mowbray (2003), students with psychiatric disabilities perceived DSPs 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 DSPs are competent, the provision of reasonable accommodations is an important factor in predicting the success of students with psychiatric disabilities in postsecondary education (Kihara & Huefner, 2008) and plays a role in their seeking out services.

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 DSPs 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 DSPs develop an “aggressive outreach program targeting current and prospective students, ensuring students are aware of their right to the service” (p. 242). Other professionals on a student’s coordinated care team, such as rehabilitation counselors, often assist with outreach as well.

The provision of outreach does not alleviate the need for students to learn self-advocacy skills. In fact, the ability of DSPs 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 a 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 transition training for students with learning disabilities preparing for postsecondary education (Alberta, 2002). However, Pottick et al. (2008) and McEwan and Downie (2013) found that because the typical age of onset for psychiatric disabilities is 18 to 24-years-old (after students leave secondary school), students with psychiatric disabilities in postsecondary education might have had limited opportunities to develop self-advocacy skills before entering college.

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 DSPs to “throw up their hands in despair because the students take so much of the professional’s time” (p. 279). Collins and Mowbray (2005; 2008) suggested that DSPs 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 DSPs 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 seven 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. Kihara and Huefner (2008) acknowledged the importance of partnerships between professionals, community members, and DSPs. These partnerships are particularly important considering that DSPs 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 other professionals on a student's coordinated care team may lead to the development, implementation, and maintenance of innovative strategies for addressing the needs of students with psychiatric disabilities.

The collaboration between DSPs 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 DSPs 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) suggested that disability professionals in postsecondary education encourage family members to expand their social support networks (i.e., National Alliance for Mental Illness) and

listen to families' concerns while 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 DSPs yielded similar findings. They attributed their findings to the role two-year colleges play in providing community access to postsecondary education. Further, two-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, also 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 DSPs. 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 offices. Stein (2005) revealed an initial hesitation by faculty and staff when supporting students with psychiatric disabilities. However, when DSPs 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. DSPs should be key partners in the coordination of campus safety procedures (Flynn & Heitzmann, 2008; Mowbray et al., 2006).

Differences Between Professional and Student Perceptions

DSPs in both the Delphi survey and national survey rated the knowledge, skill, and attitudinal items consistently. However, there were differences in ratings between DSPs and students with psychiatric disabilities who participated in the Delphi study. While additional research is required to establish empirical differences, the discrepancies noted warrant discussion. These differences in ratings pertain to four items in particular. First, students perceived the ability of DSPs to assist them develop natural supports as being particularly important ($M = 4.00$, $SD = 0.75$). DSPs rated this item lower ($M = 2.87$, $SD = 1.33$). According to Fabian and colleagues (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 reducing stigma associated with seeking disability services (Belch, 2011). While DSPs may perceive the establishment of natural supports as requiring substantial up-front time and effort (McEwan & Downie, 2013), they tend to 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 DSPs to assist them prepare for employment as being important ($M = 3.86$, $SD = 0.77$). DSPs 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 DSPs in preparing students with psychiatric disabilities for employment (Unger, Pardee, & Shafer, 2000). Unger and colleagues encouraged DSPs to help students with psychiatric disabilities to prepare for employment. With the help of DSPs, 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, Pardee, & Shafer, 2000). Yet, the substantial time and effort required by DSPs 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 DSPs to be important in assisting them transition into independent living settings ($M = 3.13$, $SD = 0.82$). DSPs rated this item lower ($M = 2.06$, $SD = 1.31$). 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 DSPs 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 DSPs. Community agencies like independent living centers and vocational rehabilitation can assist as well.

Lastly, students perceived the ability of DSPs to implement supported education strategies as being important ($M = 3.45$, $SD = 0.99$). DSPs 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 partners and community agencies). DSPs are important members of the supported education team (Brasher & Dei Rossi, 2009; Collins & Mowbray, 2005). Collins and Mowbray (2005) found that 15 percent of DSPs had extensive involvement in supported education programming, 22 percent had moderate involvement, 43 percent had limited involvement, and 20 percent had no involvement. Based on the outcomes of supported education strategies, and the apparent limited exposure to DSPs, this may be an under-explored approach to working with students who experience psychiatric disabilities.

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 et al., 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, which can expand their own understanding of advocacy and social justice. Importantly, it was not the purpose of the current study to judge which perspective (DSPs 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. For example, the knowledge, skills, and attitudes may guide professional development opportunities such as in-service training for DSPs. Collins and Mowbray (2005) suggested that in-service training is an important activity for DSPs 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 DSPs to pursue in-service training. The findings from this study provide AHEAD and similar in-service providers with a set of empirically established 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. It is important to clarify that in-service training is not a “quick fix” but rather one of many on-going professional development steps that DSPs can take toward continuously improving the services they provide to students with psychiatric disabilities. Further, it might not be realistic to expect DSPs to possess the extensive range of knowledge, skills, and attitudes identified in the current study. Instead, students with psychiatric disabilities often need a well-trained team of coordinated care professionals, of which DSPs are members.

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 DSPs. The third assumption was that the participants were able to accurately and honestly assess the knowledge, skills, and attitudes that are needed to provide 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 DSPs. Further, certain knowledge, skills, and attitudes may not have been identified during the instrument development process and therefore were not subjected to analysis. The relatively small survey sample size ($n = 402$) also limits generalizability of findings. Lastly, the Delphi student panelists may have over-selected the disability services they desired. In reality, the selection of services is driven by more than just student desire. DSPs must be cognizant of what is realistic and ethical within their scope of work and the capacity of the postsecondary education institution.

Recommendations for Future Research

It is hoped that the current study will stimulate future research. Addressing the aforementioned 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 DSPs to possess in order to provide beneficial services to students with psychiatric disabilities in postsecondary education. Researchers should also determine how DSPs perceive their preparedness for each knowledge, skill, and attitudinal item. The topic of professional development may also lead to future research topics, including the exploration of effective methods for DSPs 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 DSPs' 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 DSPs. 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 future research opportunity.

Conclusion

The current study was the first to identify knowledge, skills, and attitudes that were perceived to be important for DSPs 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 DSPs 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 and five factors that emerged from the current study offer DSPs and other coordinated care professionals another step toward improving services for students with psychiatric disabilities in postsecondary education.

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