Disability Stigma on Campuses: Helping Students with Psychiatric Impairments to Succeed

Daniel J. Trunk¹ Charles J. Russo² Jack Trammell³

Abstract

This study investigated the impact of disability type on perceived disability-related stigma of 55 students with disabilities at a medium-sized, private mid-western university, as measured by the Postsecondary Student Survey of Disability-Related Stigma (PSSDS). The researchers conducted five independent samples *t*-tests to determine if there were significant differences in perceived stigma scores between students with psychiatric impairments compared to those with other types of impairments. Previous research reports that college students with impairments, in particular those with psychiatric conditions, experience unique disability-related barriers impacting their social and academic experiences and degree completion. The results of the analyses revealed that students with psychiatric impairments reported significantly higher stigma scores compared to peers with other types of impairments on the Academic Success, Personal Relationships, and Sense of Self and Identity factors of the PSSDS, as well as on the overall stigma scores. The article also discusses implications for further research.

Keywords: disability stigma, psychiatric impairment, mental health stigma, college students with disabilities

Studies conducted over the past 20 years demonstrate a trending increase in students with disabilities pursuing postsecondary study. For example, admissions data collected by Palombi (2000) suggested that the number of students with disabilities attending college has grown significantly in recent years, with an estimated 400% increase between the mid-1970s and the turn of the 21st century. Data from the National Center for Education Statistics (2010) reported that slightly less than 11% of undergraduate students reported having a disability during the 2007-2008 school year. Similarly, a follow-up study conducted by the National Center for Education Statistics (2015) revealed slightly over 11% of students in U.S. postsecondary institutions were identified as having disabilities during the 2011-2012 academic school year. Although exact admissions data and future projections for students with disabilities pursuing higher education are difficult to calculate, it is evident that these numbers continue to increase (Leake, 2015; Sniatecki et al., 2015).

Despite this increase in admission and attendance, individuals with disabilities in the United States are

still significantly less likely to attend college or to graduate with degrees compared to their peers not having disabilities (Marshak et al., 2010; Newman et al., 2010). Within the subpopulation of students with disabilities, those with psychiatric disorders or impairments, the focal point of this study, are a particular subgroup with unique needs and challenges that may not be fully met on many campuses.

Researchers have found that students with disabilities are less likely to seek accommodations through offices of disabilities services or other student support offices when they perceive greater levels of environmental stigma (e.g., Belch, 2011; Denhart, 2008; Hartley, 2010; Kranke et al., 2013; Litner et al., 2005; Salzer et al., 2008; Weiner & Weiner, 1996). Yet, there is a lack of research focusing on the perceived stigma of students with psychiatric disabilities compared to their peers with other types of disabilities.

As noted, students with psychiatric disabilities tend to have lower retention and graduation rates compared to students with other types of disabilities, as well as their peers who do not have disabilities. Perceived stigma on campus related to mental health disorders may cause students with psychiatric disabilities to choose to refrain from disclosing their disabilities to those on campus who may be able to help them to procure the accommodations they may be legally entitled to receive.

This study was situated within a legal and equal opportunity framework with a particular emphasis on community inclusion and accommodation of students in higher education with psychiatric impairments. The purpose of the study, which was originally part of a larger study, was to investigate the impact of disability type on student perceived disability stigma. This study compared disability stigma ratings between students with psychiatric disabilities and those with other types of disabilities, such as learning disabilities and attention-deficit/hyperactivity disorder. By comparing the perceived stigma of students with psychiatric disabilities to their peers with other types of disabilities, the research aimed to provide evidence for the need for a cultural shift away from a completely medical model of "mental illness" towards a more accepting campus community supportive of mental health awareness and disability accommodation.

Literature Review

Prior to entering postsecondary educational settings, students with disabilities are protected by the Individuals with Disabilities Education Act (IDEA, 2004). The IDEA requires all 50 states, because all states currently accept federal IDEA funding, through local education agencies or school boards, to provide a free appropriate public education (FAPE) to all identified students with disabilities in the least restrictive environment, including those with psychological and psychiatric impairments and disorders.

In higher education settings, students with psychiatric disorders are responsible for maintaining the same academic and behavioral standards as their peers who are not disabled. Also, students with disabilities on campuses are responsible to seek out services and support in the form of accommodations from the college or university office of disability services or therapeutic services through counseling centers (Wisbey & Kalivoda, 2011). Unlike in K-12 setting, officials in higher educational institutions are not obligated to identify and evaluate students who may have or demonstrate symptoms of psychiatric impairments. Consequently, many individuals with mental health needs often do not get the support and services they may need in order to be successful, a reality which may contribute to lower retention rates (Lightner et al., 2012).

Two other federal statutes impacting the disabled, Section 504 of the Rehabilitation Act of 1973 (Section 504) and ADA do not mandate the delivery or provision of specific services such as mental health support, as opposed to accommodations. Still, these laws do help create a framework for better meeting the needs of students with mental health needs. Even though Section 504 and the ADA are intended to prevent discrimination, studies (e.g., Russo & Osborne, 2009; Collins & Mowbray, 2005; McEwan & Downie, 2013; Salzer et al., 2008) demonstrate that students with psychiatric disabilities often do not seek the accommodations to which they may be entitled, thereby possibly leading to lower degree completion rates and greater future economic disadvantage.

Marshak et al. (2010) investigated barriers for students with disabilities contributing to their not seeking out and utilizing disability services at their higher education institutions. This study revealed that disability stigma, the students' desire for self-advocacy and self-sufficiency, their lack of knowledge about their disabilities, a lack of quality services delivered despite requests, and negative disability-related experiences with faculty and school personnel were all reasons participants chose to not disclose their disabilities to campus personnel or seek out accommodations. The financial cost of private psychological evaluations to demonstrate evidence of disabilities, if college and university programs do not provide them, may also deter students on campuses from applying for accommodations (Wisbey & Kalivoda, 2011).

Lightner et al. (2012) uncovered similar results in their analysis including 42 students with learning disabilities at a large competitive state university. Data gathered through individual interviews revealed four main themes that contributed to students not seeking accommodations on campuses after being on Individualized Education Programs (IEPs) while in K-12 schools. The themes included a lack of time students reported to seek out assistance through offices of disability services; lack of knowledge about their own disabilities and how to seek help; the want or perceived need to establish identities separate from being considered "students with disabilities;" and feelings that because things were going well they did not necessarily need the extra support.

Baker et al. (2012) investigated the perceptions of students and faculty at a small, liberal arts women's college regarding students with disabilities. The results of this study highlighted the existence of a discrepancy in the views of inclusiveness for students with disabilities on campus between faculty and students at the university. The study further reported that faculty members tended to view the campus and classrooms as more inclusive and supportive while students reported lower ratings relating to the inclusiveness and support for those with disabilities on campus. The study added that faculty members reported lower mean ratings compared to students on questions about the capabilities of students with disabilities in meeting the demands of academic programs, as well as demands of the profession post-graduation.

Among all students with disabilities in higher education, those with psychiatric impairments, the focus of this study, represent a growing population. According to the most recent data from the National Center for Education Statistics (2015), approximately 20% of the population of students with disabilities, or about 2% of the total student population, on campus reported having a psychiatric disability during the 2011-2012 school year.

Statistics from the Higher Education Research Institution (2011) estimated approximately 4% of undergraduate students in 2010 reported having psychological disorders. Because of the pattern of many students with disabilities not disclosing their disabilities to peers or professionals at their schools, it is difficult to estimate a valid number of individuals with psychiatric disabilities in United States higher education systems (Collins & Mowbray, 2008; Stein, 2013). Despite this, the number of students with such impairments appears to be sizable and growing.

Undiagnosed and untreated psychiatric disabilities may mean that many college and university students are left to struggle with symptoms of disorders such as depression, anxiety, and schizophrenia without the care and support of qualified university and mental health professionals. Moreover, although studies reveal an increase in the pursuit of postsecondary study, approximately 85% of students with psychiatric disabilities withdraw from college prior to completing their degrees (Kessler et al., 1995).

Hartley (2010) described four risk factors for retention relating specifically to students with mental or psychiatric disabilities in college: temporary cognitive impairment, pervasive social stigma, poor academic self-confidence, and conflicted peer relationships. The social stigma associated with mental health diagnoses also makes students reluctant to disclose their disability to faculty members or peers. The "invisibility" of mental health disorders can also lead to having faculty members question whether poor performances are due to actual disabilities or if they are a result of low motivation or knowledge. Souma et al. (2012) observed that students with psychiatric disabilities might experience disability-related limitations that may negatively impact their educational and social-emotional functioning.

Difficulties associated with "invisible" mental health disorders may include the side effects of medications; difficulty concentrating and sustaining attention as well as maintaining stamina or vitality; trouble adapting to changes in schedules or living situations, severe anxiety related to tests and group assignments; difficulty interacting or maintaining relationships with others; and higher rates of drug and alcohol abuse (Belch, 2011; Hartley, 2010; Stein, 2013; Wolf, 2001). Given that the college experience may be the first time students with psychiatric impairments are away from supports they may have had in the past, such as family, close friends, and previous therapists, these new living and learning arrangements may be a source of significant stress. Further, the academic rigor required to complete college and university courses may be more than what students experienced in their secondary school careers.

Megivern, Pellerito, and Mowbray (2003) found that the most common reasons students with psychiatric disability withdraw from their colleges and universities were psychiatric symptomology such as anxiety, feelings of isolation, lack of academic integration, financial problems, and changed life goals. The authors also reported that although aware of their psychiatric impairment and its symptoms, 90% of students did not seek assistance from their campus offices of disability services or counseling centers.

Kranke et al. (2013) concluded students tended not to disclose their disabilities to anyone on campus for reasons including the stigma associated with mental health disorders, fears of not being considered "normal," concerns for how they would be viewed by their professors and how this could affect future relationships with professors, and the need to feel independent such as not feeling as though the disability would/should affect their academic performance. The researchers suggested that students were more likely to disclose their disabilities when they perceived their instructors as supportive, when they experienced a "stress overload," or when their disabilities had a significant impact on their academic performance, such as a student having to miss class for a week due to symptoms of their disability. The authors noted that students with psychiatric disabilities on campuses may struggle more significantly with internal stressors compared to their peers who are not disabled.

Previous research on students with disabilities has demonstrated that the perception of disability stigma remains a common reason why these individuals choose not to disclose their conditions to staff or faculty on campuses nor request accommodations for their disabilities through an office of disability services. According to Dovidio, Major, and Crocker

(2000), stigmatization involved both the recognition of individual differences or deviations from the norm based on some distinguishing or specific characteristics and, consequentially, devaluations of the persons due to this characteristic. These authors added that most potentially stigmatizing conditions, although not detrimental to one's health in-and-of-themselves, can potentially threaten the stigmatized individuals' psychological health due to associated social isolation and rejection. While students with psychiatric disabilities may be considered to have hidden stigmatizing characteristics not readily visible to others, the suppression of their concealable stigmas may, in fact, bring about greater levels of stress and psychological incapacitation compared to peers with readily visible stigmas (Smart & Wegner, 2000).

In sum, although the rates of individuals with psychiatric disabilities pursuing higher education are increasing, these students continue to face challenges contributing to low retention rates and negative experiences on campus. In general, students with psychiatric disabilities may be the least understood subgroup on campus, contributing to a significant lack of academic and emotional support and to their continued marginalization (Megivern et al., 2003; Mitchell et al., 2013). Due, at least in part, to perception regarding mental health disorders, students with psychiatric disabilities often do not disclose their disabilities to peers, faculty members, or other school personnel. In turn, these students may not receive accommodations they may be legally entitled to under Section 504 and the ADA.

The following research question guided this study on perceived disability stigma in students with psychiatric disabilities in higher education: What are the differences in perceived disability-related stigma between students with psychiatric impairments compared to peers with other types of impairments?

Method

Setting

The researchers conducted the study at a private, four-year research university in the Midwestern United States. Blair University (BU; pseudonym) has an undergraduate enrollment of approximately 10,000 undergraduate students, with approximately and additional 3,000 graduate and professional students. Specific university characteristics and demographic data are not described in detail to protect the confidentiality of the protected group being studied as well as the reputation of the institution.

Sample

The population for the study was all undergraduate students with psychiatric disabilities at BU. Given the confidential nature of student disability status, especially considering the stigma associated with psychiatric disabilities in particular, the study included a sample of students at BU who volunteered to participate. Thus, the research employed a nonprobability, purposive sampling method that allowed participants to volunteer to participate in the study. A total of 57 questionnaires were completed during the data collection process, resulting in 55 usable surveys; two of the surveys were completed by graduate students who may have inadvertently been sent the solicitation for research e-mail and were not usable given the research questions and instruments being used.

Variables

The demographic items and research variables included on the questionnaire used in the study were included not only to allow for the intended statistical analyses, but also to provide descriptive statistics related to demographic characteristics and service utilization of students with both psychiatric and other impairments at the target institution. The disability stigma variable referred to each individual student's disability-related stigma scores on the PSSDS, while the disability type variable referred to the type of disabilities with which the students completing the questionnaire had been diagnosed. The eleven disability categories in this study were consistent with those used in the National Postsecondary Student Aid Survey and in previous research (Herrick, 2011). For the purposes of this study, the disability type variable was recoded into a dichotomous, categorical variable allowing for a two-group comparison between students with psychiatric disabilities and students with all other types of disabilities.

Instrumentation

Postsecondary Student Survey of Disability-Related Stigma (PSSDS). The PSSDS, created as a dissertation project (Trammell, 2006), is an instrument used to measure perceived disability stigma experienced by individuals with disabilities on college campuses. Trammell explained that the PSSDS was designed under the assumption that numerous factors or sources contribute to the effects of disability stigma. The instrument, which uses a Likert-type scale rating system, is comprised of 24 questions relating to four identified factors related to students' perceived disability stigma: academic success, peer relationships, sense of self and identity, and global awareness. The PSSDS' Academic Success domain was designed to measure a student's perceptions of his or her own academic abilities and achievements as a student with a disability. The Personal Relationships domain was designed to measure a student's perceptions of how disability and stigma impacted their personal relationships, particularly in ways that might be categorized as negative or discriminatory. The Sense of Self and Identity domain was designed to measure students' self-awareness of their own disabilities, the degree to which they accept their conditions, and their ability to live with them.

The Global Awareness domain was designed to go beyond the sense of self as an attempt to measure students' general acceptances of their disability identities and the extent to which they impacted skills such as self-advocacy, communication, and academic capital. Six of the 24 items on the PSSDS uniquely load into one of each of the four stigma factors measured on the instrument. For example, the academic success factor score is derived from a summation of responses on questions 11, 12, 13, 18, 22, and 23 on the PSSDS.

Individuals completing the PSSDS are asked to respond to each question on the scale by selecting a response from those provided on the five-point scale that most accurately represents their experiences on campus (0 = never, 1 = occasionally, 2 = regularly, 3 =frequently, 4 =all of the time). According to Trammell, "the higher the total score ... the more stigmatized a student felt" (2006, p. 16). Overall stigma scores are derived from a summation of the four unique stigma factors, each having a potential score from 0-24. The overall disability-related stigma scores have the potential to range from 0 to 96, with the latter representing the highest degree of perceived stigma. Trammell provided the following scale to categorize overall stigma scores: 0 - 24 little stigmatization, 25 - 48 moderate stigmatization, 49 – 72 high stigmatization, and 73 – 96 extremely high stigmatization.

Procedures

After gaining approval from the university Institutional Review Board (IRB), as well as establishing a contact in the office of disability services, the researchers sent the research questionnaire to all students registered with disability services at BU during spring of 2016. The instrument was sent to students who were second year students through seniors six times during the course of the data collection period, and not sent to first year students because they had not begun school yet during the initial sending of the questionnaire. Given the confidential nature of student disability status, the researchers worked through our contact in the office of disability services to send the questionnaire to possible participants.

Data Analysis

In order to determine whether there was a significant difference in disability stigma ratings reported by students with psychiatric disabilities compared to their peers with other types of disabilities, the researchers conducted a series of independent samples *t*-tests. This type of analysis is useful when comparing mean scores between two groups to determine if statistically significant differences exist on a measured dependent variable (Ary, Jacobs, & Sorensen, 2010). The mean factor scores for the four PSSDS factors and total stigma scores on the PSSDS were compared between students with psychiatric disabilities and students with all other disability types. The alpha level was initially set at .05 for each independent samples t-test. However, given the increase in familywise error rate associated with testing multiple hypotheses, the researchers adjusted the alpha level for each test to .025 using the Bonferroni correction (Field, 2009; Pallant, 2013).

Results

The researchers provided a staff member from the office of disability services with the Qualtrics-created survey link; that staff member then sent an email to the 631 potential participants containing an invitation to participate in the research, as well as the link to the questionnaire. The researchers also placed paper copies of the survey in the office of disability services. Fifty-five students completed the electronic version of the research instrument. No completed paper copies of the survey were received.

Demographics

Disability Type. On the primary disability type item of the questionnaire, 25 participants reported having psychiatric disabilities (45.5%), 13 (23.6%) responded as having attention-deficit/hyperactivity disorder (ADHD), 10 indicated that they had learning disabilities (18.2%), and 3 identified themselves as having health impairments (5.5%). Two (3.6%) students reported having hearing impairments while another two (3.6%) students responded that they had orthopedic impairments. For the purposes of hypothesis testing, 25 students (45.5%) were placed in the psychiatric disability group while 30 (54.5%) were put in the "other" disability type group.

Co-occurring Disability Types. On the research instrument, participants reported whether they had a secondary impairment in addition to the primary

impairments they reported. Eighteen (32.7%) participants reported having co-occurring, or dual, disabilities. The two most common co-occurring pair of impairments reported by the participants were psychiatric impairments and ADHD, with seven individuals having reported these dual diagnoses. Three participants reported having psychiatric disabilities and health impairments. Other co-occurring disabilities reported included dual: psychiatric and specific learning disabilities, dual psychiatric disabilities, psychiatric and orthopedic disabilities, ADHD and specific learning disabilities, visual and health impairments, and developmental disability and ADHD. For the purpose of this study, students were placed into a disability group (i.e., psychiatric or other) by their primary reported disability on the study instrument.

Engagement in Counseling Services. Of the 55 participants who completed the research questionnaire, 22 (40%) reported that they received counseling services while 33 (60%) answered that they did not receive counseling services. Of the 22 students who received counseling services, 14 (63.6%) reported that they received this help through the university counseling center at BU, while 8 (36.4%) responded that they obtained assistance from outside service providers.

Previous Disability-Related Services. Students were asked to report whether they received services or accommodations by means of IEPs and/or Section 504 Plans in high school due to their disabilities or whether they did not receive services through either of these documents. Thirteen (23.6%) of the 55 participants reported they received IEP services while 13 (23.6%) responded that they received services through Section 504 Plans. Twenty-nine (52.7%) participants reported that they did not receive services or accommodations in high school due to their disabilities. The study did not take into account, for those who had received prior services and accommodations, when the students were initially identified as having impairments.

Stigma by Disability Type

The research question asked what the differences in perceived disability-related stigma ratings were between students with psychiatric impairments compared to their peers with other types of impairments across the four factors of the PSSDS, as well as the total PSSDS stigma score. In order to investigate this question, the researchers conducted five separate independent samples non-directional *t*-tests using a Bonferroni corrected alpha level of .025. Significant *t*-test results revealed statistically significant differences in mean scores between the two groups, while the effect size statistic indicates the magnitude of the impact of disability type on stigma scores. Levene's Test for Equality of Variances was nonsignificant for all t-test analysis, except for the Personal Relationships factor analysis.

The results of the Academic Success factor t-test demonstrated a statistically significant (t (53) = 3.25, p = .002) difference in Academic Success factor scores between students with psychiatric impairments compared to students with other types of impairments. More specifically, students with psychiatric impairments reported significantly higher Academic Success factor scores (M = 12.68, SD = 4.00) on the instrument compared to those with other types of impairments (M = 9.47, SD = 3.35). The effect size, calculated using Cohen's d, of .87 indicates a large effect.

The results of the Personal Relationships factor t-test indicated a statistically significant (t (36.16) = 2.85, p = .007) difference in Personal Relationship factor scores between students with psychiatric impairments and those with other types of impairments. More specifically, students with psychiatric impairments reported significantly higher Personal Relationship factor scores (M = 10.76, SD = 4.78) on the instrument compared to students with other types of impairments (M = 7.70, SD = 2.68). The effect size, calculated using Cohen's d, of .79 indicates a medium effect.

The results of the Sense of Self and Identity factor t-test revealed a statistically significant (t(53) = 2.45, p = .018) difference in Sense of Self factor scores between students with psychiatric impairments compared to those with other types of impairments. More specifically, students with psychiatric impairments reported significantly higher Sense of Self factor scores (M = 11.80, SD = 3.55) on the instrument compared to those with other types of impairments (M = 9.47, SD = 3.49). The effect size, calculated using Cohen's d, of .66 indicates a medium effect.

The results of the Global Awareness factor t-test demonstrated no significant (t (53) = 1.42, p = .160) differences in Global Awareness factor scores between students with psychiatric impairments and those with other types of impairments. The mean scores on the Global Awareness factor of the PSSDS for students with psychiatric impairments (M = 10.24, SD = 4.25) did not differ significantly from those in the study with other types of impairments (M = 8.63, SD = 4.10).

The researchers conducted the final independent samples *t*-test to compare the PSSDS total disability-related stigma factor scores between students with psychiatric impairments to those with other types of impairments. The results of the *t*-test indicated a statistically significant (t(53) = 3.16, p = .003) difference in PSSDS total scores between students with psychiatric impairments and students with other types of impairments. Among the students in the sample, those with psychiatric impairments reported significantly higher PSSDS total scores (M = 45.48, SD = 13.81) on the instrument compared to students with other types of impairments (M = 35.27, SD = 10.11). The effect size, calculated using Cohen's d, of .84 reveals a large effect of disability type on perceived disability-related stigma as students with psychiatric impairments reported significantly greater levels of stigma.

Discussion

This study expanded previous research on students with disabilities in higher education by focusing on individuals with psychiatric disabilities. From an equal access and opportunity lens, this study investigated the impact of disability type on student perceived disability stigma. In general, the results of the study supported the research hypothesis, which stated there would be significant differences in perceived disability-related stigma between students with psychiatric impairments compared to those with other impairments.

Insofar as the researchers sent the research questionnaire to students who had self-disclosed their disabilities on campus, all of the respondents in the sample were registered as having impairments through the university office of disability services. Despite this, only 46 of the 55 (83.6%) participants reported receiving academic accommodations. Of the nine students who did not receive accommodations, seven identified as having psychiatric impairments.

The research results suggest three conclusions from this finding. First, it is possible that the responding students with psychiatric impairments did not need academic accommodations because their disabilities may not have impacted their educational performances to the point where they needed such assistance in order to access the curricula in accordance with Section 504.

Second, it is possible that previous negative experiences with faculty and college or university officials, or factors such as stigma related to mental illness, prevented the students from requesting and/ or using accommodations. Stein (2013) reported that mental illness stigma alone may prevent students with psychiatric impairments from requesting accommodations. To this end, a study by McLean and Andrews (1999) found that nearly two-thirds of students diagnosed with psychiatric impairments regretted disclosing their disabilities on campuses due to negative consequences of doing so and would not recommend others disclose theirs. It is possible, then, that although participants in this study were eligible to receive accommodations, they did not use them due to reasons such as stigma.

Third, as Wiener and Wiener (1990) reported, students with psychiatric impairments may not have felt entitled to or deserving of academic accommodations. In this respect, participants may have thought that because their psychiatric impairments should not have impacted their academic performances, they chose not to request accommodations. Regardless of the reasons, the lack of utilization of potentially legally-mandated accommodations may impact student success.

Unexpectedly, despite reporting having psychiatric impairments, only 10 of the 25 responding students reported utilizing assistance through the counseling center at BU while another 5 reported receiving help through outside service providers. These findings are similar to those reported by Belch (2011) and Cooper et al. (2003), who also identified the underutilization of counseling services by students with psychiatric impairments.

Finally, approximately one-half of the participants (n = 26) in the study reported receiving services and/ or accommodations due to their disabilities in high school. Of the students with psychiatric disabilities, only two reported having IEPs in high school, while six answered that they received accommodations through 504 Plans. Seventeen students with psychiatric impairments reported receiving no prior services. Comparatively, of the 30 participants with other types of disabilities, 18 received services in high school.

It is possible that the onset of the psychiatric impairments did not occur until the students entered higher education. Even so, it is also possible that students' impairments were not properly identified in K-12 settings. Given the importance of collaborative transition planning for students with impairments moving from K-12 to higher education settings (Madaus, Shaw, & Dukes, 2010), this under-identification may contribute to students with these impairments being unprepared for the challenges they may face in college.

Stigma by Disability Type. The results of this study demonstrated that the 55 participating students with disabilities obtained a mean total PSSDS score of 39.91, thereby placing them in the "moderate stig-matization" range. In other words, this reveals that, as a whole, there seemed to be a moderate amount of stigma on campus experienced by the participants related to their disabilities. Again, given the limited

number of responses and the potential for nonresponse bias, it is difficult to generalize these findings to the larger population of students with disabilities at BU. It is certainly possible that students registered with disability services who chose not to complete the research questionnaire may experience more stigma than those who chose to participate. Further, it may be even more likely that students with impairments who have not chosen to disclose their disabilities on campus experience the greatest amounts of perceived stigma. However, these are simply speculations and cannot be supported by any other information obtained in the study.

The results of the group comparison analyses revealed that respondents with psychiatric impairments, in general, reported greater levels of stigmatization on campus. The *t*-tests conducted for this study found that, in support of the research hypotheses, these students reported significantly higher stigma scores in three of the four PSSDS stigma factors, as well as in overall stigma scores compared to those with other types of disabilities.

Respondents in this study with psychiatric impairments reported higher stigmatization ratings on questions that loaded into the Academic Success factor. In fact, of the four factors on the PSSDS, students with psychiatric impairments reported the highest levels of stigmatization related to academic success. This factor, which includes items such as "My grades are lower than expected" and "I do poorly on tests in part due to my disability," reflects students' perceptions of their own academic performance and their need for accommodations in order to be successful in college.

This is a noteworthy finding considering that 13 of the students in the "other disability" group indicated having learning disabilities, a diagnosis characterized by significant deficits in at least one academic area. This reveals that although the psychiatric impairment may not be directly impacting students' academic skills, they reported greater perceived deficits in such areas compared to those with diagnosed academic deficits. Hartley (2010) described poor academic self-confidence as a barrier for students with psychiatric impairments in college. The results of this study confirmed this outcome, expanding on it through further comparison to those with other types of disabilities.

Another finding of this study was that students with psychiatric impairments reported significantly higher levels of perceived stigma with regard to peer and interpersonal relationships. Social integration, which involves the development of interpersonal relationships with peers and faculty members as well as feeling a sense of belonging on campus, is important to student success and persistence in college (Bialka, Morro, Brown, & Hannah, 2017; Tinto, 1993).

The results of this study reveal that, compared to those with other types of disabilities, students with psychiatric impairments reported greater perceived impact on disability stigmatization on their interpersonal relationships. Because students with disabilities, in general, may demonstrate lower levels of social integration (DaDeppo, 2009), this finding suggests that students with psychiatric disabilities at BU may be particularly at-risk socially and that campus officials should undertake targeted efforts to help these students develop interpersonally and help them build social networks on their campuses.

Finally, the results of the study supported the research hypothesis that students with psychiatric disabilities would report significantly greater levels of perceived disability stigma related to their sense of self. This finding is not surprising because many common psychiatric conditions are characterized by persistent depressed moods, low self-esteem, and decreased self-concept, not to mention considerable mental health stigma in the broader culture.

On the PSSDS, students with psychiatric impairments reported higher levels of stigmatization on items including "I think of myself as smart," "Teachers view me as having a shortcoming," and "I feel good about myself." This factor is of particular importance as studies (e.g., Baker et al., 2012; Kranke et al., 2013; Thompson-Ebanks, 2011; Weiner & Weiner, 1996) have shown students are less likely to disclose their disabilities and ask for accommodations when they perceive faculty members as resistant to accommodation or when they feel faculty members have negative views towards disabilities. Conversely, Kranke et al. (2013) indicated that students who feel faculty members are supportive are more likely to disclose their disabilities and ask for accommodations.

Students with psychiatric impairments reported higher stigma scores on items comprising the Global Awareness factor compared to those with other types of disabilities. The differences were not significant, though.

Recommendations for Future Research

Insofar as this study was conducted at a mid-sized private institution, replication of this study at larger public and private institutions may provide insights into the disability-related stigmatization perceived by students with impairments at other types of colleges and universities. Future qualitative studies should also be conducted to better understand the unique experiences of students with psychiatric impairments on campuses and how their impairments impact their ability to function within these three areas. Phenomenological qualitative designs using interview techniques, such as those described by Seidman (2013), may allow researchers to gain more holistic understandings of the meaning making processes of students with psychiatric impairments on campus and how these conditions impact their lives.

Of particular surprise was that only 15 of the 25 students with psychiatric impairments in the study received any sort of counseling services, with only 10 of them utilizing those offered through the university. Further quantitative research investigating the impact of counseling services on students with psychiatric impairments may help emphasize the potential academic and social benefits of participation in counseling services. Utilizing qualitative methodologies, researchers may also be able to gain better understanding of why students with psychiatric impairments, who in this study disclosed their disabilities on their campuses, do not take advantage of mental health services offered through the university

Real or perceived faculty stigmatization toward disabilities can be a main factor in students choosing not to disclose their impairments on campus (Martin, 2010). As such, research is needed from a faculty development perspective to explore faculty perceptions of students with psychiatric disabilities and to help faculty members gain awareness of these potentially unconscious biases and beliefs. Further, it may be prudent to investigate faculty and staff knowledge of laws offering protections for students with disabilities such as Section 504 and the ADA. Data gathered through these investigations may be used to create professional development opportunities to help faculty members gain awareness of potentially unconscious biases and beliefs, as well as to help them better understand nondiscrimination laws and institutional responsibilities.

Finally, it would be useful to conduct future research to better understand the experiences and needs of graduate students with disabilities. Because two graduate students volunteered for participation in the current study, and given increasing rates of graduate student enrollment for students with impairments (NCES, 2009), it may be reasonable to engage in post hoc studies to explore how these students successfully navigated their undergraduate studies and earned their degrees. Further, exploring factors associated with these students' successes, as well as barriers they faced as undergraduates, coupled with an examination of challenges they may continue to face in their graduate education, are also likely to have important implications for student and academic affairs professionals as they seek to create more inclusive environments designed to foster student success on campuses.

Recommendations for Future Practice

Culture Change. The results of the study reveal that campus culture related to individuals with disabilities, especially those with psychiatric impairments, may be less than fully inclusive. At the heart of organizational culture are the underlying values and beliefs of individuals within the organization. For example, although faculty members may have statements on their syllabi noting that students with impairments may receive accommodations and may say and espouse that they support students with impairments, if the true beliefs of those educators are that students with impairments get unfair advantages or that they lack the same academic capabilities as their peers who do not have disabilities, then the organizational culture remains negative. Regardless of the artifacts supporting the rights of individuals with disabilities and the espoused or spoken values of campus officials claiming nondiscrimination, this study indicated that the underlying values on campus continue to stigmatize disability as perceived by the students.

Moreover, underlying cultural viewpoints of psychiatric impairments from a medical model perspective may lead to the assumption that conditions such as generalized anxiety disorder or major depressive disorder are illnesses that can, and should, be "cured." Although medical intervention such as pharmaceutical interventions may certainly be appropriate in some cases, students may be less likely to discuss or seek treatment for such conditions if they feel they will be judged or seen as having something wrong with them. Instead, a cultural shift away from this view of "mental illness" towards a more open and accepting campus community that supports mental health awareness and disability accommodation may help students feel more supported and willing to talk about challenges they may be facing related to their mental health.

Another recommendation for change is the practice of universal instructional design (UID) as an example of positive campus culture related to students with disabilities. UID fosters multimodal teaching and assessment methods in order to enhance learning for all students by creating a learning environment that encourages different strengths and learning styles (Wisbey & Kalivoda, 2011). Opposed to simply providing accommodations to persons with disabilities, UID maintains that students should have the freedom to demonstrate growth and mastery using many different methods and that it should be a priority of the faculty members to support student discussion and cooperative learning.

Faculty Development. Kranke et al. (2013) found that students who perceive faculty members as supportive and understanding are more likely to

disclose their disabilities on campuses and request accommodations. At the same time, Becker and Palladino (2016) thought that students who perceive faculty members as unwilling to provide accommodations or unapproachable may be less likely to disclose their disabilities. Moreover, Baker et al. (2012) found a discrepancy in the views of faculty members compared to students with regard to the perceived inclusiveness for students with disabilities on campus. These results demonstrated that faculty members tended to view their campuses and classrooms as more inclusive and supportive but underestimated the needs of students with disabilities even as they did not fully understand the unique challenges that such students face.

Professional development opportunities may include informative sessions designed to provide faculty members with data regarding the prevalence rates of various psychiatric disabilities among college students, common myths and misconceptions of mental illness, and effective accommodation strategies to better meet students' needs. Sessions may introduce and reinforce institutional nondiscrimination legal requirements under Section 504 and the ADA. Insofar as faculty members may have advanced education and training only in their fields of study, they may not be explicitly aware of educational laws and policies applicable to students with disabilities. Being aware of such regulations may help faculty members be more understanding when students request accommodations in the classroom or disclose their disability.

Student Development. Little research has been conducted investigating the cognitive, interpersonal, and intrapersonal dimensions of disability. Complicating matters is that different individuals may make different meaning of their disabilities at varying points in their lives. Wisbey and Kalivoda (2011) suggested that individuals who acquire or become aware of disabilities later in their lives, as is often the case with many individuals with psychiatric impairments given common ages of onset, may have a more difficult time coming to terms with their disability identity compared to those who have made such adjustments throughout their entire lives. Student development professionals must be conscious of this when working with students with psychiatric impairments, as these students may not be fully accepting of their impairment, or may not yet be aware of the impact the condition may have on their lives.

The results of this study also revealed that student counseling services on campus were underutilized, even among those with psychiatric impairments who may have benefitted the most from interventions with trained mental health practitioners. As many studies (e.g., Lazar, 2014; Seligman, 1995) and textbooks (e.g., Corey, 2013; Jongsma, Peterson, & Bruce, 2014) continue to report, counseling and mental health therapy can be very effective in helping decrease the symptoms of a vast number of psychiatric conditions. Further, counseling and mental health therapy can help individuals to learn coping skills to address personal and interpersonal challenges in a more effective manner.

The importance of counseling and mental health support for students with psychiatric impairments in higher education has been documented (Belch, 2011; Eisenberg et al., 2009). Despite this, the low numbers of students using therapeutic resources on campus in this study is problematic and indicative of an underutilization of available and potentially beneficial counseling services.

Student development and counseling center staff members may collaborate to create initiatives to help increase awareness of available counseling services on campus, as well as promote the use of such services on campus as a means of increasing student success. Students should be aware that they do not necessarily need to be in crisis to utilize services, that they may benefit from counseling to help create a positive self-image and to help them find balance with the many pressures they may face. Simply having literature available or email reminders about available services may help students feel more comfortable utilizing them as needed.

Academic and social integration on campus may be powerful factors for increasing persistence and success for college students that can help them to develop inter- and intra-personally (Astin, 1984; Bialka et al., 2017; Tinto, 1997). Belch (2011) thought that recognizing the variables impacting the integration of students with psychiatric impairments on campus is important to supporting their needs and creating collaborative and inclusive student programs. These programs may include student advocacy organizations, student learning communities, student-faculty linkages, or outreach programs to help students better understand their disabilities and the accommodations and services they may be entitled to receive.

Increasing Campus Awareness. Increasing mental health and disability awareness may ultimately help decrease stigma and increase student success. Students, faculty members, and campus staff alike need to be aware of signs and symptoms of various mental health disorders, as well as prevalence rates on campus. However, more importantly than reducing stigma is the need to dispel rumors by addressing fears that some may have about mental illness (Belch, 2011). It is important for campus officials to create positive cultures towards students with impairments evidenced by literature supporting their needs, accessible buildings and campus grounds, espoused beliefs and values, and a true dedication to nondiscriminatory service delivery. To this end, Hadley (2011) was of the opinion that "Campuses can be a more welcoming place when students feel safe, supported, and encouraged to grow as individuals, and their disabilities are viewed as part of the diversity on campus" (p. 80).

Hartley (2010) posited that just as orientations exist to introduce first-year students to various aspects of the college environment, so should orientations be used to provide students with information related to disability and mental health supports on campuses. According to Salzer et al. (2008), students with psychiatric impairments who were aware of accommodations that were available on campus were more likely to request such accommodations. Eisenberg et al. (2009) found that university officials may, in their efforts to identify students who may be suffering from undiagnosed psychological disorders, adopt mental health screening tools and proactive intervention strategies. Waiting for students to experience mental health crises before offering support will do little to help the overall campus community proactively meet the needs of other students who may be at risk.

Conclusion

This quantitative study examined the impact of disability type, either psychiatric or other, on perceived levels of disability stigma. The study was situated within an equal opportunity framework with an emphasis placed on inclusion of students with disabilities in higher education.

The literature helping to form the foundation of this study suggested that students with disabilities face many challenges related to inclusion on campus and degree completion. At the same time, the literature revealed that stigma related to mental illness may be a factor in students with psychiatric impairments not disclosing their disabilities on campus and requesting accommodations they may be legally entitled to receive. According to the 55 participants in this study, students with psychiatric impairments reported greater levels of perceived disability-related stigma on campus.

This study further exemplifies the notion that there is more work to be done. Although this study focused specifically on students with disabilities, stigmatization is a phenomenon impacting many students who may not perceive themselves as members of campus communities. Faculty members, administrators, professionals, officials, and other personnel on campuses have a responsibility to advocate for the students they serve and fight to help ensure that their needs are being met. Only through concerted efforts can educational professionals help to expand knowledge, reduce stigma, and facilitate change to improve learning opportunities for students with psychiatric and other types of disabilities, on their campuses.

References

- Ary, D., Jacobs, L. C., & Sorensen, C. (2010). Introduction to research in education (8th ed.). Belmont, CA: Wadsworth, Cengage Learning.
- Astin, A. W. (1984). Student involvement: A developmental theory for higher education. *Journal of College Student Personnel*, 25, 397-308.
- Baker, K. Q., Boland, K., & Nowik, C. M. (2012). A campus survey of faculty and student perceptions of students with disabilities. *Journal of Postsecondary Education and Disability*, 25, 309-329.
- Becker, S., & Palladino, J. (2016). Assessing faculty perspectives about teaching and working with students with disabilities. *Journal of Postsecondary Education and Disability, 29*, 65-82.
- Belch, H. A. (2011). Understanding the experiences of students with psychiatric disabilities: A foundation for creating conditions of support and success. *New Directions for Student Services*, 134, 73-94.
- Bialka, C. S., Morro, D., Brown, K., & Hannah, G. (2017). Breaking barriers and building bridges: Understanding how a student organization attends to social integration of college students with disabilities. *Journal of Postsecondary Education* and Disability, 30, 157-172.
- Collins, M. E., & Mowbray, C. (2005). Higher education and psychiatric disabilities: National survey of campus disability services. *American Journal* of Orthopsychiatry, 75, 304-315.
- Collins, M. E., & Mowbray, C. (2008). Students with psychiatric disabilities on campus: Examining predictors of enrollment with disability support services. *Journal of Postsecondary Education and Disability*, 21, 91-104.
- Cooper, A. E., Corrigan, P. W., & Watson, A. C. (2003). Mental illness stigma and care seeking. *Journal of Nervous and Mental Disease, 191*, 339-341.
- Corey, G. (2013). *Theory and practice of counseling and psychotherapy* (9th ed.). Brooks/Cole.
- DaDeppo, L. M. W. (2009). Integration factors related to the academic success and intent to persist of college students with learning disabilities. Learning *Disabilities Research and Practice*, 24, 122-131.

- Denhart, H. (2008). Deconstructing barriers: Perceptions of students labeled with learning disabilities in higher education. *Journal of Learning Disabilities*, *41*, 483-497.
- Dovidio, J. F., Major, B., & Crocker, J. (2000). Stigma: Introduction and overview. In T. F. Heatherton, R. E. Kleck, M. R. Hebl, & J. G. Hull (Eds.), *The Social Psychology of Stigma* (pp. 1-30). The Guilford Press.
- Eisenberg, D., Golberstein, E., & Hunt, J. B. (2009). Mental health and academic success in college. The B.E. *Journal of Economic Analysis & Policy*, 9(1), 1-35.
- Field, A. (2009). Discovering statistics using SPSS: And sex and drugs and rock 'n' roll. London. Sage.
- Hadley, W. M. (2011). College students with disabilities: A student development perspective. *New Directions for Higher Education*, 154, 77-81.
- Hartley, M. T. (2010). Increasing resilience: Strategies for reducing dropout rates for college students with psychiatric disabilities. *American Journal of Psychiatric Rehabilitation, 13*, 295-315.
- Herrick, S. J. (2011). *Postsecondary students with disabilities: Predictors of adaptation to college.* (Doctoral dissertation). Retrieved from https://etda.libraries.psu.edu
- Higher Education Research Institution. (2011). College students with "hidden" disabilities: The freshman survey fall 2010. (Research Brief). Retrieved from http://www.heri.ucla.edu/PDFs/ pubs/briefs/HERI_ResearchBrief_Disabilities_20 11_April_25v2.pdf
- Individuals with Disabilities Education Act, 20 U.S.C. §§ 1400 et seq. (2004).
- Jongsma, A. E., Peterson, L. M., & Bruce, T. J. (2014). *The complete adult psychotherapy treatment planner* (5th ed.). John Wiley & Sons, Inc.
- Kessler, R. C., Foster, C. L., Saunders, W. B., & Stang,
 P. E. (1995). Social consequences of psychiatric disorders, I: Educational attainment. *American Journal of Psychiatry*, 152, 1026-1032.
- Kranke, D., Taylor, D. A., Jackson, S. E., Floersch, J., & Anderson-Frye, E. (2013). College student disclosure of non-apparent disabilities to receive classroom accommodations. *Journal of Postsecondary Education and Disability*, 26, 35-51.
- Lazar, S. G. (2014). The cost-effectiveness of psychotherapy for the major psychiatric diagnoses. *Psychodynamic Psychiatry*, 42, 423-458.
- Leake, D. (2015). Problematic data on how many students in postsecondary education have a disability. *Journal of Postsecondary Education and Disability*, 28, 73-87.

- Lightner, K. L., Kipps-Vaughan, D., Schulte, T., & Trice, A. D. (2012). Reasons university students with learning disability wait to seek disability services. *Journal of Postsecondary Education and Disability*, 25, 145-159.
- Litner, B., Mann-Feder, V., & Guerard, G. (2005). Narratives of success: Learning disabled students in university. *Exceptional Education Canada*, *15*(1), 9-23.
- Madaus, J. W., Shaw, S. F., & Dukes, L. L. (2010). Introduction. In S. F. Shaw, J. W. Madaus, & L. L. Dukes (Eds.), *Preparing students with disabilities* for college success: A practical guide to transition planning (pp. 1-7). Baltimore, MD: Paul H Brookes Publishing.
- Marshak, L., Van Wieren, T., Ferrell, D., Swiss, L., & Dugan, C. (2010). Exploring barriers to college student use of disability services and accommodations. *Journal of Postsecondary Education and Disability*, 22, 151-165.
- Martin, J. M. (2010). Stigma and student mental health in higher education. *Higher Education Research & Development*, 29, 259-274.
- McEwan, R. C., & Downie, R. (2013). College success of students with psychiatric disabilities: Barriers of access and distraction. *Journal of Postsecondary Education and Disability*, 26, 233-248.
- McLean, P., & Andrews, J. (1999). The learning support needs of students with psychiatric disabilities studying in Australian post-secondary institutions (Evaluative Report ISBN-0-87397-544-8). National Centre for Vocational Education Research.
- Megivern, D., Pellerito, S., & Mowbray, C. (2003). Barriers to higher education for individuals with psychiatric disabilities. *Psychiatric Rehabilitation Journal*, 26, 217-231.
- Mitchell, S. L, Kader, M., Haggerty, M. Z., Bakhai, Y. D., & Warren, C. G. (2013). College student utilization of a comprehensive psychiatric emergency program. *Journal of College Counseling*, 16,49-63.
- National Center for Education Statistics. (2009). Number and percentage distribution of students enrolled in postsecondary institutions, by level, disability status, and selected student characteristics: 2003-04 and 2007-08. Retrieved from https://nces.ed.gov/programs/digest/d10/tables/ dt10_240.asp
- National Center for Education Statistics. (2010). Enrollment in post-secondary institutions 2008, graduation rates 2002, and 2005 cohorts, and financial statistics fiscal year 2008: A first look. U.S. Department of Education.

- National Center for Education Statistics. (2015). *Digest of education statistics, 2013.* U.S. Department of Education.
- Newman, L., Wagner, M., Cameto, R., Knokey, A. M., & Shaver, D. (2010). Comparison across time of the outcomes of youth with disabilities up to 4 years after high school. A report of findings from the National Longitudinal Transition Study (NLTS) and the National Longitudinal Study- 2 (NLTS-2). SRI International.
- Pallant, J. (2013). *SPSS survival manual* (5th ed.). Open University Press.
- Palombi, B. (2000). Recruitment and admission of students with disabilities. *New Directions for Student Services*, *91*, 31-39.
- Rehabilitation Act of 1973, Section 504, 29 U.S.C. § 794(a) (2012).
- Russo, C.J. & Osborne, A.G. (2009). Section 504 of the Rehabilitation Act of 1973 and the Americans with Disabilities Act: Implications for educational leaders. Corwin Press.
- Salzer, M., Wick, L., & Rogers, J. (2008). Familiarity with and use of accommodations and supports among postsecondary students with mental illness. *Psychiatric Services*, *59*, 370-375.
- Seidman, I. (2013). Interviewing as qualitative research: A guide for researchers in education and the social sciences (4th ed.). Teachers College Press.
- Seligman, M. E. P. (1995). The effectiveness of psychotherapy: The Consumer Report study. *American Psychologist*, 50, 965-974.
- Smart, L., & Wegner, D. M. (2000). The hidden costs of hidden stigma. In T. F. Heatherton, R. E. Kleck, M. R. Hebl, & J. G. Hull (Eds.), The social psychology of stigma (pp. 220-242). New York, NY: The Guilford Press.
- Sniatecki, J. L., Perry, H. B., & Snell, L. H. (2015). Faculty attitudes and knowledge regarding college students with disabilities. *Journal of Postsecondary Education and Disability*, 28, 259-275.
- Souma, A., Rickerson, N., & Burgstahler, S. (2012). Academic accommodations for students with psychiatric disabilities. Retrieved from http://www. washington.edu/doit/Brochures/Academics/ psych.html
- Stein, K. F. (2013). DSS and accommodations in higher education: Perceptions of students with psychological disabilities. *Journal of Postsecondary Education and Disability, 26,* 145-161.
- Thompson-Ebanks, V. (2014). Personal factors that influence the voluntary withdrawal of undergraduates with disabilities. *Journal of Postsecondary Education and Disability*, 27,195-207.

- Tinto, V. (1993). *Leaving college: Rethinking the causes and cures of student attrition* (2nd ed.). University of Chicago Press.
- Tinto, V. (1997). Classrooms as communities: Exploring the educational character of student persistence. *Journal of Higher Education*, 68, 599-623.
- Trammell, J. (2006). *Development of the Postsecondary Student Survey of Disability-Related Stigma* (SSDRS). Virginia Commonwealth University.
- Weiner, E., & Weiner, J. (1996). Concerns and needs of university students with psychiatric disabilities. *Journal on Postsecondary Education and Disability*, 12, 2-9.
- Wisbey, M. E., & Kalivoda, K. S. (2011). College students with disabilities. In M. J. Cuyjet, M. F. Howard-Hamilton, & D. L. Cooper (Eds.), *Multiculturalism on campus: Theory, models, and practices for understanding diversity and creating inclusion* (pp. 347-370). Stylus.
- Wolf, L. E. (2001). College students with ADHD and other hidden disabilities. *Annals of the New York Academy of Sciences*, *931*, 385-395.

About the Authors

Daniel Trunk, Ph.D. is a nationally certified school psychologist currently practicing in the Beavercreek City Schools district in southwest Ohio. Dr. Trunk is also an adjunct faculty member in the School of Education and Health Sciences department at the University of Dayton teaching classes in assessment, special education, and research methods. His research professional and research interests include educational leadership, special education law, organizational behavior, and mental health needs of students in K-12 and higher education settings. He can be reached by e-mail at: trunkd1@udayton.edu.

Charles J. Russo, J.D., Ed. D., is the Joseph Panzer Chair in Education in the School of Education and Health Sciences, Director of its Ph.D. Program, and Research Professor of Law in the School of Law at the University of Dayton. The 1998-99 President of the Education Law Association, and 2002 recipient of its McGhehey (Achievement) Award, he authored or co-authored more than 300 articles in peer-reviewed journals; authored, co-authored, edited, or co-edited 68 books, and has more than 1,100 publications. Dr. Russo also has spoken extensively on issues in Education Law in thirty-three of the United States and thirty-one other Nations. In addition, he edits two journals and serves on more than a dozen editorial boards.

128 Trunk et al.; Disability Stigma

Jack Trammell is Chair of Sociology, Criminal Justice. Human Services at Mount Saint Mary's University in Emmitsburg, Maryland. His research specialties include: disability, social history, and methodology.